


A survey on Koreans' preferred type of collaboration between conventional medical and traditional Korean medicine doctors

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Abstract

Although collaborative treatment by traditional Korean medicine doctors (KMDs) and medical doctors occurs, it is mainly done by referral. As no survey of the general public's preference for the type of collaboration has ever been conducted, we aimed to investigate Koreans' preferences for a collaborative treatment type.

The responders were extracted by random digit dialing and then reextracted using the proportional quota sampling method by sex and age. From July to October 2017, telephone interviews were conducted and the participant responses regarding treatment history for spinal or joint diseases, experiences with collaborative treatment, and preferred type of collaborative treatment were recorded.

Of the 1008 respondents, 44.64% reported a history of treatment for spinal or joint diseases at a medical institution. The concurrent collaborative treatment system, in which both KMDs and medical doctors are present in one location participating in the treatment concurrently, was the most preferred system among the respondents. Respondents who reported experience with traditional Korean medicine hospitals were more likely to prefer a one-stop treatment approach than those who did not have experience with traditional Korean medicine hospitals (adjusted odds ratio: 1.73; 95% confidence interval: 1.12–2.68). Respondents who were familiar with collaborative treatment but did not report any personal experience with it were more likely to prefer a one-stop treatment approach than those who were not familiar with collaborative treatment (adjusted odds ratio: 1.82; 95% confidence interval: 1.37–2.44).

Koreans prefer a concurrent type of collaborative treatment system by KMDs and medical doctors. Therefore, efforts and support are needed to increase the application of the concurrent type of collaborative system.

Abbreviations: CAM = complementary and alternative medicine, CI = confidence interval, IM = integrative medicine, KMDs = traditional Korean medicine doctors, MDs = medical doctors, OR = odds ratio.

Keywords: collaborative treatment, integrative medicine, Korean traditional medicine, questionnaire

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1. Introduction

Integrative medicine (IM) is a patient-centered, holistic healthcare approach that emphasizes the importance of lifestyle while encompassing the body's self-healing ability.^[1] IM is evidence-based and prevention-oriented. This clinical approach combines conventional medical treatment with complementary and alternative medicine (CAM).^[2] Interest in IM that includes CAM and traditional Asian medicine has recently increased.

The pattern of acceptance of traditional medicine into national healthcare systems varies among nations. The method of incorporating traditional medicine can be classified as 1 of 4 types: integration type (traditional medicine is integrated with conventional medicine; e.g., China), parallel operation type (e.g., Korea and Taiwan), tolerance type (traditional medicine is accepted as a medical skill and technique and is accepted into the national system; e.g., Japan), and an exclusion type (traditional medicine is not recognized and is not included; e.g., Belgium).^[3] In South Korea, traditional and conventional medicine systems operate in parallel within a dual system. Determining how to combine these 2 different medical systems requires careful consideration.

Collaborative treatment systems present new alternatives to patients who have experienced limitations with modern medicine

approaches, such as patients with chronic pain, and can produce better medical outcomes. A previous study reported that collaborative treatment of patients who had experienced an acute stroke resulted in significantly lower all-cause mortality 3 months after the stroke.^[4] Collaborative treatment can result in superior medical outcomes and enhance patient satisfaction.^[5]

Although many collaborative treatment approaches between traditional Korean medicine doctors (KMDs) and medical doctors (MDs) are currently used in South Korea to provide IM and improved patient outcomes, a 2010 survey reported that 74% of the collaborative treatments are conducted by 2 separate departments within a single hospital, and 19% of the collaborative treatments are conducted by departments at different hospitals with the same founder.^[6] These results show that most of the collaborative treatments in South Korea are conducted by referrals to and from MDs and KMDs within one institution, or by referrals to and from Korean medicine hospitals and conventional medicine hospitals. These types of requests within one institution or between hospitals provide patients with various treatment options; however, these options may be duplicated or may contradict one another.

To solve this problem, collaboration, whereby KMDs and MDs treat patients concurrently, can be implemented by creating a special center that incorporates this collaboration. A 2010 survey found that 4.9% of collaborative treatments were conducted at special collaborative centers. However, detailed information from our survey showed that very few collaborative treatments were performed in parallel and that MDs and KMDs conducted their treatments on patients irrespectively without a mutually agreed-upon treatment plan. Collaborative treatments that are implemented at the same time have advantages, such as avoiding overlapping treatments and saving patients' time; however, due to the limitations of the Korean health insurance system, it is difficult to implement because MDs and KMDs cannot charge for concurrent treatments. This may require establishing measures to promote concurrent care, but prior to this, it is necessary to identify the type of collaboration that patients prefer. Adopting a highly preferred method could increase overall satisfaction with collaborative care and facilitate medicine development if collaborative efforts are maximized. However, there has never been a public survey of preferred collaboration types. In this study, we investigated the preferences for collaborative treatment types of patients with spinal and joint diseases, which account for the largest proportion of outpatients using Korean healthcare services.^[7] Moreover, we also intended to analyze the factors affecting these preferences.

2. Materials and methods

2.1. Development of questionnaire

MDs and KMDs of Jaseng Hospital of Korean Medicine and researchers from the Jaseng Spine and Joint Research Institute collaborated to develop the questionnaire. As the purpose of this survey was to investigate the respondents' preferences for the collaborative treatment types, the questionnaire included items about the characteristics of the respondents, use of medical institutions and treated diseases, the ability to recognize collaborative treatment, experience with collaborative treatment, and preference for the type of collaborative treatment. The collaborative treatment systems were divided into 4 types, each representing a type that was researched in prior studies:

1. selecting one treatment system from either conventional or traditional Korean medicine and receiving treatment from the corresponding institution only;
2. the existing Western-Korean collaborative treatment method in which some of the respective treatments of Western medicine and Korean medicine are used according to the needs of patients or at the request of medical staff;
3. the integrative healthcare system in which medical specialists of conventional and traditional Korean medicine are present at one location and concurrently participate in the treatment with open communication between clinicians; and
4. other types. After a draft was developed, the questionnaire was revised by the researchers and KMDs, who each wrote an opinion regarding the content and item format.

After individual review, the researchers convened to share their opinions on the rationale and reasoning behind each revision; revisions were retained if agreed on by at least 3 of 4 researchers in the collective decision. The revised draft was further reviewed by other KMDs and MDs. The final version of the questionnaire was confirmed through consultation and modification in cooperation with Gallup Korea.

2.2. Selection of survey subjects

The selection of subjects and the telephone surveys were conducted at Gallup Korea to ensure the validity of the survey. Samples were extracted using random digit dialing from whole Korean cellphone numbers and landline phone directories to avoid selection bias and then reextracted by a proportional quota sampling method reflecting the population by sex, age, and region. The ratio of landline phone to cellphone interviews was 4:6. The survey of adult men and women aged 35 to 75 years was conducted via telephone interviews by experienced interviewers from September 26, 2017, to October 10, 2017. A total of 1008 persons were surveyed. This study was approved by the institutional review board at Jaseng Hospital (JASENG 2018-01-009) and was conducted according to the principles of the Declaration of Helsinki. The need for consent was waived by the institutional review board because the research involved minimal risk to the subjects and could not be carried out practicably without the waiver.

2.3. Statistical analysis

All categorical values were presented as n (%) and continuous variables were presented as mean \pm standard deviation. The intention to use collaborative care was analyzed with logistic regression modeling according to age, residential area, medical history, previous experience with traditional Korean medicine, and perception of/experience with collaborative care. A multivariate analysis was conducted with an adjustment for the above factors. All analyses were performed using Stata v14.0 (StataCorp, College Station, Texas).

3. Results

Of the 1008 respondents, 503 were men and 505 were women. Nearly one-third of respondents (30.75%) were 40 to 50 years old. The Incheon/Gyeonggi region had the most respondents (n = 301), followed by the Busan, Daegu, Ulsan, and Gyeongsang regions. Nearly one-half (44.64%) of respondents reported a history of treatment for a spinal or joint disease (Table 1).

Table 1
Demographic characteristics of respondents (n = 1008).

	n	(%)
Age, years* 51.62 ± 10.54		
35 ≤ < 40	144	14.29
40 ≤ < 50	310	30.75
50 ≤ < 60	302	29.96
60 ≤ < 70	190	18.85
70 ≤ < 75	62	6.15
Sex		
Male	503	49.9
Female	505	50.1
Region		
Seoul	194	19.25
Incheon/Gyeonggi	301	29.86
Pusan/Daegu/Ulsan/Gyeongsang	266	26.39
Gwangju/Jeolla	101	10.02
Daejeon/Sejong/Chungcheong	103	10.22
Gangwon/Jeju	43	4.27
Spinal or joint disease treatment		
Yes	450	44.64
No	558	55.36

* Age is presented as mean ± SD. All other variables are presented as n (%).

Out of 450 patients who had been previously treated for spinal or joint disease, 108 (24.00%) were treated for a herniated intervertebral lumbar disc and 98 (21.78%) were treated for joint disorders. Respondents had also been treated for myalgia, herniated cervical discs, and spinal stenosis (Table 2). Primary care hospitals, Korean medical clinics, and local clinics were the most frequently used hospital types in all age groups except those aged 70 to 75 years, for which primary care hospitals, local clinics, and university hospitals or general hospitals were the most frequently used hospital types (Table 3).

Most respondents (58.04%) preferred the new collaborative treatment type in which specialists of Western medicine and traditional Korean medicine are both at one location and concurrently participate in treatment with open communication, regardless of the respondents' ability to recognize the collaborative treatment types or their extent of experience with them (Table 4). Selecting either conventional medicine or Korean medicine and then receiving treatment from that one institution only were preferred by 21.83% of the respondents, and the

existing Western-Korean collaborative treatment approach, in which some of the respective treatments of Western and Korean medicine are added to the treatment plan according to the patient's individual needs, was preferred by 18.95% of respondents. A higher number of respondents who were able to recognize collaborative treatments and had previous experience with collaborative treatments rated the one-stop collaborative treatment center as "very positive" compared with respondents who did not recognize collaborative treatments. Most respondents reported they had intentions of using a one-stop treatment center in the future, regardless of their ability to recognize collaborative treatments or their experience with collaborative treatments (no recognition: 63.88% intended to use; recognition but no experience: 76.48% intended to use; recognition and experience: 77.78% intended to use) (Table 4). When analyzing the differences in preferences by disease history, respondents with a history of a herniated lumbar disc tended to have relatively low "very positive" and "positive" ratings for collaborative treatment at one location. Respondents with the degenerative spinal disease also tended to choose collaborative treatment at one location (Supplemental Digital Content 1, <http://links.lww.com/MD/G94>).

A logistic regression analysis was performed to analyze the factors that have the greatest impact on the intention to use collaborative treatment at one location. In the analysis by age group, 70 to 75-year-old respondents were found to have the lowest intentions (adjusted odds ratio [OR]: 0.37; 95% CI: 0.20–0.69). Respondents with experience in using a traditional Korean medicine hospital had higher intentions to use the concurrent system (adjusted OR: 1.73; 95% CI: 1.12–2.68). The history of the spine and joint disease appeared to be highly mediated by higher intentions; however, it was not significant after adjustment. Respondents who recognized but had no experience with collaborative treatment indicated the intention to use it in the future (adjusted OR: 1.82; 95% CI: 1.37–2.44) (Table 5). There were no significant regional differences.

4. Discussion

South Korea is a country where traditional and conventional medicine operate in parallel within a dual national system.^[8] Combining these 2 medical systems into a collaborative, integrated medical system is of current interest,^[5] as it will provide patients who have limited conventional medicine

Table 2
Respondents' spine and joint disease history (n = 450).

	Herniated cervical disc		Herniated lumbar disc		Spinal stenosis		Degenerative spine conditions		Myalgia (Sprain)		Joint disorders		Others		No memory/unknown	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Total	46	10.22	108	24.00	68	15.11	15	3.33	86	19.11	98	21.78	25	5.56	4	0.89
Age																
35 ≤ < 40	7	16.28	16	37.21	2	4.65	0	0.00	10	23.26	7	16.28	1	2.33	0	0.00
40 ≤ < 50	14	11.97	32	27.35	12	10.26	0	0.00	30	25.64	19	16.24	9	7.69	1	0.85
50 ≤ < 60	19	12.67	33	22.00	21	14.00	7	4.67	30	20.00	31	20.67	9	6.00	0	0.00
60 ≤ < 70	4	4.12	18	18.56	22	22.68	6	6.19	11	11.34	31	31.96	3	3.09	2	2.06
70 ≤ < 75	2	4.65	9	20.93	11	25.58	2	4.65	5	11.63	10	23.26	3	6.98	1	2.33
Sex																
Male	23	10.22	62	27.56	33	14.67	7	3.11	43	19.11	38	16.89	18	8.00	1	0.44
Female	23	10.22	46	20.44	35	15.56	8	3.56	43	19.11	60	26.67	7	3.11	3	1.33

Table 3
Respondents' use of types of medical institutions (duplication allowed) (n = 450).

	Conventional medicine (n = 408)										Korean medicine (n = 235)						Other (n = 10)	
	Total		Primary care hospital (orthopedics, hospital, etc.)		Local clinic (orthopedics, rehabilitation medicine, etc.)		Spine-specialty hospital (conventional medicine)		University or general hospital		Total		Korean medicine hospital		Spine-specialty Korean medicine hospital		Others	
	n	%	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Age																		
35 ≤ < 40	36	8.82	18	49.02	16	3.92	6	65.36	6	1.47	25	10.64	9	3.83	2	0.85	1	10
40 ≤ < 50	109	26.72	67	39.87	40	9.80	15	65.36	20	4.90	60	25.53	13	5.53	7	2.98	3	30
50 ≤ < 60	135	33.09	87	38.03	42	10.29	20	51.47	28	6.86	80	34.04	24	10.21	12	5.11	1	10
60 ≤ < 70	87	21.32	46	46.36	35	8.58	16	53.62	19	4.66	51	21.70	17	7.23	4	1.70	3	30
70 ≤ < 75	41	10.05	21	47.85	17	4.17	8	52.08	16	3.92	19	8.09	9	3.83	2	0.85	2	20
Sex																		
Male	202	49.51	113	43.81	75	18.38	38	48.37	39	9.56	105	44.68	33	14.04	12	5.11	6	60
Female	206	50.49	126	40.07	75	18.38	27	68.08	50	12.25	130	55.32	39	16.60	15	6.38	4	40

treatment options with new, alternative treatments and may lead to the development of new medical technologies and treatment techniques. However, collaborative treatment is currently typically performed only by way of referrals between doctors of different departments or different institutions, impeding the further development of an integrated system or new advances in medical technology. Additionally, when the treatment plans of conventional and traditional medicine are not shared between

doctors, the patient may become confused due to differing or conflicting treatment modalities or instructions. Therefore, it is necessary to develop a collaborative treatment system that combines the dual medical systems into one IM system that is more efficient and convenient. Concurrent collaboration, one of the types of collaboration, is a system in which MDs and KMDs conduct examinations and then discuss and establish the treatment plans in one place concurrently. We thought it was

Table 4
Respondents' level of awareness of Western-Korean collaborative treatment, preferred treatment method, opinion on one-stop collaborative treatment, and intention for use in the future.

	Level of Western-Korean collaborative treatment awareness							
	No recognition		Recognition & no experience		Recognition & experience		Total	
	n	(%)	n	(%)	n	(%)	n	(%)
Preferred collaborative treatment method								
Select one from conventional or Korean medicine and receive treatment from the corresponding institution only	123	25.10	88	19.34	9	14.29	220	21.83
Existing Western-Korean collaborative treatment method in which some of the respective treatments of Western medicine and Korean medicine are added according to the patient's needs	89	18.16	81	17.80	21	33.33	191	18.95
Integrative healthcare system in which the medical specialists of conventional medicine and Korean medicine are present at one location and concurrently participate in the treatment with communication	267	54.49	286	62.86	32	50.79	585	58.04
Other	9	1.84	0	0.00	1	1.59	10	0.99
No response	2	0.41	0	0.00	0	0.00	2	0.20
Opinions on the collaborative treatment of Western-Korean medical staff performed concurrently at one-stop								
Very positive	83	16.94	102	22.42	15	23.81	200	19.84
Positive	232	47.35	241	52.97	27	42.86	500	49.60
Average	107	21.84	67	14.73	18	28.57	192	19.05
Negative	24	4.90	22	4.84	2	3.17	48	4.76
Very negative	3	0.61	9	1.98	0	0.00	12	1.19
No idea/do not wish to answer	41	8.37	14	3.08	1	1.59	56	5.56
Intention for use in the future								
Yes	313	63.88	348	76.48	49	77.78	710	70.44
No	31	6.33	30	6.59	3	4.76	64	6.35
No idea	146	29.80	77	16.92	11	17.46	234	23.21

Table 5
Respondents' intention to use one-stop collaborative treatment in the future.

	Univariate		Multivariate*	
	OR	95% CI	OR	95% CI
Age (ref. 35 ≤ < 40)				
40 ≤ < 50	1.18	(0.77–1.82)		
50 ≤ < 60	1.24	(0.80–1.92)		
60 ≤ < 70	1.14	(0.71–1.84)		
70 ≤ < 75	0.43	(0.23–0.78)	0.38	(0.20–0.71)
Area (ref. Seoul)				
Incheon/Gyeonggi	1.08	(0.73–1.60)		
Pusan/Daegu/Ulsan/Gyeongsang	1.17	(0.89–1.76)		
Gwangju/Jeolla	1.17	(0.69–1.97)		
Daejeon/Sejong/Chungcheong	1.20	(0.71–2.03)		
Gangwon/Jeju	1.37	(0.65–2.89)		
Korean medicine hospital experience (ref. None)	1.80	(1.27–2.56)	1.73	(1.12–2.68)
History of spine and joint disease (ref. None)	1.34	(1.02–1.76)		
Recognition or experience of collaborative treatment (ref. No knowledge, first heard today)				
Recognizes the collaborative treatment but has no experience	1.84	(1.38–2.44)	1.82	(1.37–2.44)
Recognizes the collaborative treatment and has experience	1.98	(1.06–3.69)		

* Adjusted for age, area, experience at Korean medical hospital, history, recognition, or experience of Western-Korean collaborative treatment methods.
 CI = confidence interval, OR = odds ratio, ref = reference.

necessary to promote collaborative care with KMDs and MDs in one place, as it is a type of collaboration that is not used much in Korea. Therefore, we aimed to investigate Koreans' preference for this type of collaboration.

4.1. Summary of findings

We surveyed Koreans to investigate the preferences of the general public on this concurrent collaboration system and determine the preferred collaborative treatment type by classifying the respondents according to their level of treatment experience, recognition of collaborative treatment, and experience with collaborative treatment. Regardless of their treatment experience, recognition of collaborative treatment, or experience with collaborative treatment, most respondents preferred a one-stop concurrent collaborative treatment center in which the staff of both fields of medicine is present at one location, mutually providing treatment with open communication between the doctors. We found no differences in preferences among the different age groups of respondents. However, respondents older than 70 years of age had low intentions of using a one-stop concurrent collaborative treatment system. No regional differences were identified in the analysis. Korea generally has a high population density in metropolitan areas, resulting in medical and traditional Korean medicine hospitals being concentrated in metropolitan areas. Therefore, the accessibility of medical and traditional Korean medicine hospitals is poor in rural areas.^[9] Another study showed that rural Korean residents have a higher mean age and lower education levels, creating a greater burden due to health conditions related to aging.^[10] A significant difference in the intention to use a collaborative treatment system by region was not identified in the analysis, apparently because it was investigated according to the administrative districts of Korea. Within the administrative region, there seem to be no significant regional differences due to the integration of urban and metropolitan and rural regions. According to Table 3, the elderly's experience in using traditional Korean medicine hospitals was relatively low, which may have been due to their

low accessibility. Elderly people have a low preference for a concurrent type of collaborative treatment system, most likely due to their experience with using a medical hospital and lack of recognition of collaborative treatment affecting their preference for a concurrent type of collaborative treatment system.

More respondents with experience using the services of traditional Korean medicine hospitals preferred a one-stop treatment center compared to those without such experience. More respondents who were able to recognize collaborative treatment intended to use a one-stop collaborative treatment center than those who were not able to recognize this treatment type. These results may be due to patients' dissatisfaction with the existing Western-Korean collaborative treatment method. Respondents may have found it troublesome to undergo treatments twice under separate treatment plans. For example, diagnostic radiography, such as X-rays or magnetic resonance imaging, may be required to diagnose spinal or joint disease; patients receiving treatment from KMDs would require a second examination from a conventional medical doctor to receive a prescription for such imaging. This process is inconvenient and may have resulted in the respondents' preference for the one-stop type of collaborative treatment center. These results reflect the need for one-stop collaborative treatment centers.

4.2. Limitations

This survey was developed specifically for spinal or joint diseases, and the results can only be applied for the collaborative outpatient treatment of such conditions. It is known that several types of referrals for collaborative treatments in South Korea already exist, including collaborative treatments for cerebrovascular disease and facial paralysis.^[4,5,11] Nevertheless, as these diseases have considerably different courses and treatment methods than spinal or joint diseases, proposing a concurrent type of collaborative treatment for these diseases requires further investigation. However, it may vary in cerebrovascular disease where treatments are mainly performed in an inpatient setting, but it is likely that preference results will be similar for patients

with facial palsy, where treatment is mainly performed in an outpatient setting.

A further limitation of this study is that only the public's preference for the type of collaboration was investigated, and differences in medical outcomes depending on the type of collaboration could not be identified. Patients will find many advantages in being able to see 2 specialists at the same place in a short time to decide the best course of treatment. However, it has not yet been confirmed whether this type of collaboration leads to better medical outcomes compared to other types. However, if experts plan treatment in one place simultaneously, they are more likely to present an integrated alternative than with their individual treatment plans, which can have a positive effect on medical outcomes and costs.

There are also limitations in that the questionnaires were not evaluated for reliability or validity. Examining the respondents' preferences for the type of collaborative treatment was the main purpose of the survey and consisted of simple sentences that identified which type of collaboration they preferred, whether they felt positive or negative about being treated concurrently and if they would be willing to use it in the future; therefore, reliability and validity were not verified.

4.3. Future implications

Although this study consisted of a survey conducted in Korea, which uses a dualized medical system, the public preference for concurrent collaborative treatment may be meaningful in other countries with different medical systems. This is because there are many countries in which experts practice CAM. If CAM providers and MDs create a collaborative system and treat patients in parallel, they can avoid conflicting treatment directions and overlapping treatments. Because of these advantages, populations in other countries may have similar preferences as Koreans. Higher patient satisfaction may also be expected if their preferred method is available.

It may be necessary to supplement the Korean health insurance system to reflect public preference so that medical collaboration can proceed simultaneously. Currently, Korean health insurance covers medical expenses only once if the patient is treated for the same disease by 2 different doctors, even if the patient sees a conventional medical doctor and a traditional Korean medical doctor on the same day. In addition, even if patients see MDs and KMDs at the same time in one location, Korea's health insurance covers the medical expenses for only one of the doctor visits. Therefore, the current system makes collaborative treatment difficult to implement. For the convenience of patients, it is recommended to see the conventional doctor and the traditional KMD on the same day to reduce the number of visits, but the current Korean public insurance system does not consider the patient's convenience. In Korea, a pilot project analyzed collaborative treatment in collaboration services and found that the cost of treatment increases per visit, while the total cost of treatment decreases significantly due to the decreased number of total visit days.^[12] The pilot project did not utilize concurrent collaboration. But if patients are treated in one place at the same time, patient satisfaction can be increased, with the added benefits of reducing patient time and unnecessary overlapping treatments and tests. There is a need for a change in the Korean health insurance policy on collaborative treatment and for a change in the cost of one-stop collaborative health treatment. As 2 medical staff treat patients at the same time, the system is improved with

cooperative medical fees, If the cooperative medical fees is improved for concurrent cooperation, it will be able to induce activation of this type of cooperation.

It is also necessary to conduct prospective clinical studies to see if collaborative treatment improves patients' medical outcomes. Clinical studies are also needed to determine whether there are any factors, such as increased side effects and interactions, caused by collaborative treatment approaches. In addition, it is necessary to compare the concurrent collaboration model with each collation of care options in each of the individual clinics to determine if there are improvements in outcomes, patient satisfaction, and costs.

This study did not specifically target respondents with a history of treatment for spinal or joint diseases or outpatients of traditional Korean medicine hospitals. Conversely, this study included an examination of the awareness and perception of the general public. Additionally, the data obtained from the survey in this study can be regarded as highly convincing in terms of the survey process and results, as a professional survey group helped develop and conduct the survey in a structured manner. This survey confirmed that the general public would prefer the implementation of a concurrent type of collaborative treatment system rather than maintaining the current referral form of collaborative treatment. If the concurrent type of collaboration is promoted, patient satisfaction with the collaboration can be expected to be higher. Support and efforts will be needed to promote this type of collaboration. The findings of this study can be used to develop an IM system and to make policy decisions.

A concurrent type of collaborative treatment system integrating Western medicine and traditional Korean medicine was found to be preferred by survey respondents, regardless of their awareness of collaborative treatment systems. This indicates the need for a concurrent type of collaborative treatment system that can lead to increased patient satisfaction. It is necessary to determine the direction of collaboration policies with MDs and KMDs by reflecting patients' preferences and to support the increasing use of the concurrent collaboration system.

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