



ORIGINAL RESEARCH

Investigation of the Knowledge and Attitude of Physicians about Traditional and Complementary Medicine

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Abstract

Objective: Traditional and complementary medicine (TACM), which is increasing all over the world, has become more common in our country. On the date of 27.10.2014, regulation on TACM practices which includes 15 different methods was published in our country. Although TACM methods have become legal in our country, they have not yet been included in the curriculum of the medical faculties and most physicians do not have enough knowledge about them. In this study, we aimed to increase the awareness of physicians about TACM, working at various levels of the medical faculty and to evaluate the knowledge, attitudes and behaviors of physicians about TACM methods.

Material-Method: This cross-sectional and descriptive study was conducted between May and July, 2018, among physicians working at Düzce University Faculty of Medicine. Questionnaires were administered to physicians participating in the survey, which includes descriptive questions and 25 questions evaluating the knowledge attitudes and behaviors of the participants about TACM methods.

Results: 50 physicians participated in our study. Acupuncture (86%), cupping (68%) and leech therapy (68%) were the most well-informed practices, respectively. The number of physicians with certificates participating in our study was quite low. 58% of the participants wanted to know more about TACM methods. The rate of physicians recommending TACM to their patients was found to be 38.3%. Also, 77.6% of the participants thought that TACM methods should be used as complementary. While 44.7% of the participants who participated in our study wanted TACM methods to be included in the curriculum, 21.3% did not. All of the participants think that the studies in the field of TACM are insufficient and as the reason, 56.4% believe that there is no scientific basis and 33.3% believe it is the bias of physicians.

Conclusion: As physicians' awareness and knowledge of TACM methods increase, more scientific studies will be conducted on this subject and their acceptability in modern medicine will increase.

Keywords: Traditional Medicine, Complementary Medicine, Physicians, Knowledge Evaluation

INTRODUCTION

Traditional and complementary medicine, which is increasing all over the world, has become more common in our country. Complementary medicine refers to practices that are used together with modern medical practices in the treatment of diseases but cannot be fully integrated into general health services. On the other hand, traditional medicine is all of the knowledge, skills and practices - which can be explained or not - based on beliefs and experiences fed by different cultures for centuries, which are used to protect from mental

and physical diseases, to diagnose, heal or treat them, as well as to maintain general well-being^{1,2}. Department of Traditional, Complementary and Alternative Medicine was established under the roof of the Ministry of Health in 2012 in our country. In 2014, its name was changed to the Department of Traditional and Complementary Medicine (TACM). In the same year, the Traditional and Complementary Medicine Practices Regulation was published. Fifteen TACM methods are defined in this regulation:



Acupuncture, Apitherapy, Phytotherapy, Hypnosis, Leech therapy (Hirudotherapy), Homeopathy, Caryopractic, Cupping therapy, Prolotherapy, Maggot therapy, Mesotherapy, Osteopathy, Ozone therapy, Reflexology and Music therapy. In addition, indication/contraindication, the personnel and the materials required to be available in the application center are explained in detail in this regulation that is aimed to prevent inappropriate TACM methods and to increase the inspections³. Although TACM methods have become legal in our country, they have not yet been included in the curriculum of the medical faculties.

In recent years, although the research done with TACM methods has increased, it is still limited. With the increasing of elderly population, the increase of chronic diseases such as diabetes, cancer, obesity and hypertension has become an important health problem. In order to stay healthy while aging, many people now prefer complementary therapies in addition to modern medicine because of their low side effects and less invasive procedures. Therefore, the demands and questions of the patients regarding TACM are also increasing.

In this study, we aimed to increase the awareness of physicians about TACM, working at various levels of the medical faculty and to evaluate the knowledge, attitudes and behaviors of physicians about TACM methods. There are a limited number of studies on this subject in our country.

MATERIALS AND METHODS

Materials

The study is a descriptive cross-sectional study and it was conducted between May and July 2018, among physicians working at Düzce University Faculty of Medicine, who wanted to participate in the study voluntarily. Written permission was obtained from the Faculty of Medicine and the Scientific Research and Publication Ethics Committee in order to conduct the study.

Methods

As a data collection tool; the questionnaire form created by the researchers as a result of the literature review and experiences was applied

through face-to-face interviews. The questionnaire includes descriptive questions about the gender and branch of the participant, and 25 questions evaluating the knowledge attitudes and behaviors of the participants about TACM methods.

Statistical analysis

Statistical analysis of the data was performed using the Statistical Package for the Social Sciences (SPSS) version 25.0 statistical package program. Suitable descriptive statistics were calculated according to the types of all data included in the study (mean, standard deviation, minimum, maximum, percentage values).

RESULTS

50 participants were included in the study (29 female, 21 male) and their distribution in terms of gender is homogeneous. The average age of the participants is 34.14 ± 8.12 (24-52) and 62% of them are research assistants (Table 1).

Table 1. Demographic characteristics

	NUMBER	%	
GENDER	Female	21	42.0
	Male	29	58.0
PROFESSION	Forensic Medicine	3	6.8
	Family Medicine	9	20.5
	Pediatric surgery	1	2.3
	Brain and Nerve Surgery	1	2.3
	Internal Medicine	3	6.8
	Infectious diseases and clinical microbiology	3	6.8
	Medical Pharmacology	2	4.5
	Physical medicine and rehabilitation	2	4.5
	General surgery	2	4.5
	Chess Diseases	3	6.8
	Ophthalmology	1	2.3
	Obstetrics and Gynecology	2	4.5
	Otolaryngology	1	2.3
	Medical Microbiology	4	8.0
	Neurology	1	2.3
	Medical Pathology	3	6.8
Pediatry	3	6.8	
DEGREE	Research assistant	31	62.0
	Doctor lecturer	11	22.0
	Associate professor	4	8.0
	Professor	4	8.0

The most common TACM methods among the participants were: acupuncture (86%), cupping (68%) and leech therapy (68%); least known were:



prolotherapy (20%), osteopathy (22%) and homeopathy (24%) (Table 2).

Table 2. ‘Which of the following TACM methods do you know about? (You can mark more than one option)’ Distribution of the answers to the question

TACM METHODS		NUMBER	%
Maggot therapy	No	32	64.0
	Yes	18	36.0
Prolotherapy	No	40	80.0
	Yes	10	20.0
Music therapy	No	34	68.0
	Yes	16	32.0
Mesotherapy,	No	30	60.0
	Yes	20	40.0
Osteopathy	No	39	78.0
	Yes	11	22.0
Caryopractic	No	38	76.0
	Yes	12	24.0
Homeopathy	No	39	78.0
	Yes	11	22.0
Ozone therapy	No	24	48.0
	Yes	26	52.0
Reflexology	No	33	66.0
	Yes	17	34.0
Cupping therapy	No	16	32.0
	Yes	34	68.0
Leech therapy	No	16	32.0
	Yes	34	68.0
Phytotherapy	No	22	44.0
	Yes	28	56.0
Apitherapy,	No	35	70.0
	Yes	15	30.0
Hypnosis	No	24	48.0
	Yes	26	52.0
Acupuncture	No	7	14.0
	Yes	43	86.0

To the question "Do you think to get response-based medicine or evidence-based medicine?", 89.8% of the participants answered that it is evidence-based. When asked to give a score from 1 to 10 on the knowledge level of the participants about TACM, 6.1% thought they had a very good knowledge level (10 points), while 22.4% had very little knowledge (1 point). Also, 58% of the participants wanted to know more about TACM methods. 42 participants (84%) knew that they could get a certificate and practice TACM as a physician, but only 28 participants (56%) wanted to get a certificate. Most of the participants (92%) did not have a certificate and 81.6% were undecided about whether TACM education was sufficient. 33.3% of the participants stated that

TACM methods were placebo, and 78% stated that it should only be done by certified physicians. Also, 77.6% of the participants thought that TACM methods should be used as complementary. 79.6% of them had not applied for any TACM method before. Most of the participants (84%) answered yes to the question "Do you have any questions about TACM methods from your patients or your environment?"

While 73.5% of the physicians participating in our study do not question whether their patients apply for TACM methods, 12 participants (26.1%) think that approximately 10% of their patients apply TACM methods. 39 participants (84.8%) think that there is information pollution about TACM and 27 participants (57.4%) want to make scientific research about TACM, but most of them (91.3%) do not have any scientific studies. To the question "Do you think that the treatment costs of TACM applications should be covered by the state?", 21 participants (46.7%) answered no, 13 participants (28.9%) answered yes, 11 participants (24.4%) were undecided. Most of them (95.7%) believe that more scientific evidence is required before TACM can be used. To the question "Would you refer the patients to TACM centers?" 38.3% answered yes, 34.4% was undecided and 27.7% answered no. 42.6% answered yes, 34% no, and 23.4% no, to the question of "Do TACM applications delay the correct treatment?"

While 21 participants (44.7%) wanted TACM methods to be included in the curriculum, 10 participants (21.3%) did not want it, and 16 participants (34%) were undecided.

All of the participants think that the studies in the field of TACM are insufficient and as the reason, 56.4% believe that there is no scientific basis and 33.3% believe it is the bias of physicians (Table 3).

DISCUSSION

Studies to examine knowledge, attitudes and behaviors about TACM were mostly conducted with patients or students in our country. However, there are a limited number of studies examining the perspectives of physicians, who are in the most important position in this regard^{4,5,6,7}.

50 physicians participated in our study.



Table 3. Distribution of the answers given to the questions about TACM

		NUMBER	%
Do you think to get response-based medicine or evidence-based medicine?	Evidence-based	44	89.8
	Response-based	5	10.2
How many points would you give to your knowledge level about TACM applications from 1 to 10?	1	11	22.4
	2	6	12.2
	3	4	8.2
	4	3	6.1
	5	6	12.2
	6	10	20.4
	7	4	8.2
	8	2	4.1
	10	3	6.1
	Would you like to know more about TACM applications?	Yes	29
No		13	26.0
Neutral		8	16.0
Did you know that you can get a certificate and apply TACM applications as a physician?	Yes	42	84.0
	No	7	14.0
	Neutral	1	2.0
As a physician, would you like to get a certificate for TACM applications?	Yes	28	56.0
	No	16	32.0
	Neutral	6	12.0
Have you ever been certified on TACM applications?	Yes	4	8.0
	No	46	92.0
How sufficient do you think the trainings given by TACM application centers are sufficient?	Enough	2	4.1
	Insufficient	7	14.3
	Neutral	40	81.6
Do you think TACM applications are placebo?	Yes	16	33.3
	No	15	31.3
	Neutral	17	35.4
Who do you think TACM applications should be done for?	1. Certified physicians	39	78.0
	2. All physicians	2	4.0
	3. All healthcare professionals	4	8.0
	4. Physicians and nurses	1	2.0
	5. other	4	8.0
In which situations do you think TACM applications should be used?	In every situation	2	4.1
	Complementary as needed	38	77.6
	In cases of no treatment	2	4.1
	Should never be used	7	14.3
Have you ever applied for TACM applications?	Yes	9	18.4
	No	39	79.6
	Neutral	1	2.0
Do you have any questions about TACM applications from your patients or your environment?	Yes very	13	26.0
	Yes little	29	58.0
	No	8	16.0
Do you ask your patients whether they apply for TACM applications?	Yes	10	20.4
	No	36	73.5
	Neutral	3	6.1
In your opinion, what percentages of your patients apply to TACM applications?	%10	12	26.1
	%20	6	13.0
	%30	8	17.4
	%40	8	17.4
	%50	8	17.4
	%60	2	4.3



	%70	1	2.2
	%90	1	2.2
Is there any information pollution about TACM?	Yes	39	84.8
	No	2	4.3
	Neutral	5	10.9
Do you have a study to clean up information pollution about TACM?	Yes	3	6.5
	No	42	91.3
	Neutral	1	2.2
Do you think the treatment costs of TACM applications should be covered by the state?	Yes	13	28.9
	No	21	46.7
	Neutral	11	24.4
Could you refer the patients you deem appropriate as a physician to TACM centers?	Yes	18	38.3
	No	13	27.7
	Neutral	16	34.0
Do TACM applications delay correct intervention?	Yes	20	42.6
	No	11	23.4
	Neutral	16	34.0
Is more scientific evidence required before TACM applications come into use??	Yes	45	95.7
	No	1	2.1
	Neutral	1	2.1
Would you like to research TACM applications and bring them to modern medicine?	Yes	27	57.4
	No	10	21.3
	Neutral	10	21.3
Do you think TACM methods should be included in the medical school course curriculum?	Yes	21	44.7
	No	10	21.3
	Neutral	16	34.0
Do you think scientific studies in the field of TACM are sufficient?	No	47	100.0
If not enough, what is the reason?	Inadequacy of the Ministry of Health	1	2.6
	Insufficient medical education	2	5.1
	Physicians' bias	13	33.3
	The influence of pharmaceutical companies	1	2.6
	Having no scientific basis	22	56.4

Acupuncture (86%), cupping (68%) and leech therapy (68%) were the most well-informed practices in our study, respectively. In a study among medical faculty students studying at our hospital, the most commonly known TACM methods were; acupuncture (77.5%), cupping (75.3%), phytotherapy (67.3%). In the study of Özçakır et al., in which general practitioners participated, it was determined that acupuncture, vitamin / mineral supplements and herbs, massage were most known TACM methods ⁶. In another study, physicians stated that they mostly heard about acupuncture and leech therapy ⁴. In a study conducted with anesthesiologists, the most known TACM method was acupuncture (71.9%) and ozone therapy was in the second place with a rate

of 45.9%. 75.3% of anesthesiologists did not use any of the TACM methods ⁷. 11 participants (22.4%) in our study thought that they had very little knowledge about general TACM applications and 3 participants (6.1%) thought they had a very good level of knowledge. In addition, the number of physicians with certificates participating in our study was quite low. In another study in Turkey the low level of knowledge of participants on TACM method was reported ⁸. In a study conducted in Sweden in 2012, 95.7% of the physicians stated that they had no or low level of knowledge about TACM ⁹. In a study conducted with general practitioners in Hungary, 82.5% claimed that they did not have sufficient knowledge about complementary medicine ¹⁰.



44 participants (89.8%) thought that they believed in evidence-based medicine, 33.3% of them thought that TACM methods were placebo. Leach et al. emphasize that evidence-based medicine practices should be available in TACM ¹¹.

In our study, the rate of physicians recommending TACM to their patients was found to be 38.3%. Orhan et al. and Yüksel et al. recommended TACM methods with a rate of 47.2% and 16% respectively ^{4,12}. When the publications in different countries were examined, 57.9% of physicians in Italy, 48% in the USA and 41.0% in England recommended TACM methods to their patients ^{13,14,15}. In our study, 12 participants (26.1%) think that only 10% of the patients applied to TACM. In a study conducted with 5,882 individuals in seven geographical regions in Turkey, TACM using rate was found to be 60.5% ¹⁶. The reason for the lower rate in our study may be due to the patients not sharing their experiences about these practices with their physicians or the workload of the physicians participating in our study. TACM applications are still not entering the general health insurance coverage in Turkey and 21 participants (46.7%) in our study also support this notion.

While 44.7% of the participants who participated in our study wanted TACM methods to be included in the curriculum, 21.3% did not. Similar results were found in other studies ^{7,17}. In medical education, it can be included as an elective course in the curriculum in order to inform students about

these practices. Education standards, which are already given in the form of postgraduate education in our country, can be arranged and made more efficient and effective.

One of the limitations of this study is the low participation. In addition, only certified methods that provide by the Ministry of Health were considered in our study. Other limitations are that it is not determined which TACM method doctors refer their patients to and why.

CONCLUSION

As a result, due to the position of TACM, it has become a necessity for any physician to have the correct information even if they are not practitioners. In our country, TACM education standards, which are given as postgraduate education, can be made more efficient and effective.

As the awareness and knowledge of physicians about TACM methods increase, scientific studies on this subject will increase and some TACM methods can be included in modern medicine. In addition, patients' accessibility to TACM in professional healthcare providers will increase and irregular applications will decrease.

We think that evidence-based regulation, more research and education are needed to ensure patient safety, to set standards and to make the right decision on patient basis in terms of TACM.

Multi-center studies with more physician participation are needed on this subject.

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