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How well is acupuncture known?

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Abstract

In our study, we aimed to assess participants' attitudes and knowledge of the use of acupuncture among those who were 18-65 years old. During the period of May 1–June 1, 2023, a descriptive cross-sectional study was carried out. Between the stated dates, anyone between the ages of 18 and 65 who applied to the Health Sciences University Şişli Hamidiye Etfal Training and Research Hospital's Family Medicine Outpatient Clinics for any reason and who accepted to participate in the study were included. The researcher administered the 24 questioned data form face-to-face with the individuals after obtaining their sociodemographic characteristics, chronic illnesses, knowledge of various TCM treatments and acupuncture. Among the participants, 167 people (73.6%) had information about acupuncture. Acupuncture was one of the most used applications in our survey, and most of the patients who experienced it were referred by physicians. Those who previously received acupuncture treatment knew more about the practice with a statistically significant difference (p=0.004). Those who knew about acupuncture and those who had previously had acupuncture said there was no danger or damage in receiving acupuncture, with a statistically significant difference (p=0.015, p=0.0001, respectively). Although acupuncture is one of the most well-known TCM uses, its use remains in the background. The internet being the most widely used information source limits access to reliable data. Acupuncture should be performed, like all TCM applications, by qualified physicians in authorized centers while taking the outcomes into consideration.

Keywords: Acupuncture, traditional medicine, acupuncture therapy, traditional medicine practitioners

Introduction

Today, all practices other than modern and scientific treatments are called as traditional, complementary or alternative medicine. The World Health Organization (WHO) defines traditional medicine as the totality of the knowledge, skills, and practices based on the theories, beliefs, and experiences inherent to various cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement, or treatment of physical and mental illnesses, despite the fact that there are differing opinions on the definition. [1]. Traditional medical practices differ widely from one country and region to another because they are impacted by things like culture, history, individual attitudes, and philosophy. The National Center for Complementary and Integrative Health (NCCIH) defines complementary medicine as the use of traditional medical practices in addition to conventional medical practices, while alternative medicine is the use of traditional medical practices instead of conventional medical practices [2]. The term "alternative medicine" has been in use in our country for a long time, but the definition of "Traditional and Complementary Medicine" (TCM) has begun to be used more frequently with the emphasis that there cannot be an alternative to medicine based on the exchange of ideas in international and national platforms [3].

While the first regulation issued by the Ministry of Health in our country to establish standardization in TCM practices was the "Acupuncture Treatment Regulation" in 1991 [4], the following regulation was published in 2014 under the heading "Regulation on Traditional and Complementary Medicine Practices" [5]. In addition to acupuncture, this regulation recognized 14 different methods. Later, with a new regulation in 2019, the framework within which TCM applications on humans will be carried out, as well as the legal foundation, were specified, and the continuation of scientific investigations was secured [6].

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Acupuncture, which literally refers to "needling," has been practiced for more than 4,000 years throughout Asia [7]. The maintenance of life in balance is the cornerstone of acupuncture philosophy, and this equilibrium is made possible by the harmony of Yin and Yang principles, which interact to create Qi. Acupuncture's main goal is to maintain a balanced flow of Qi and to manage illness symptoms [7,8]. Acupuncture, which is one of the most widely used TCM methods in Türkiye [7], is widely used in the treatment of smoking and other substance addictions, obesity, and symptom reduction in diseases such as functional bowel disease, migraine, musculoskeletal pain, anxiety disorders, sleep disorders, and cancer [5,9,10].

One of the most crucial difficulties with TCM applications is that they should only be used in the right situations by competent professionals. The level of peoples' understanding and awareness of the issue is among the most significant elements of this. In our study, we aimed to assess participants' attitudes and knowledge on the use of acupuncture among those who were 18-65 years old.

Material and Methods

Universe and sample of the research

During the period of May 1–June 1, 2023, a descriptive cross-sectional study was carried out. Between the stated dates, anyone between the ages of 18 and 65 who applied to the Health Sciences University Şişli Hamidiye Etfal Training and Research Hospital's Family Medicine Outpatient Clinics for any reason and who accepted to participate in the study were included. In order to achieve at least 224 patients, the sample size was estimated with 95% reliability over 537, the number of applications for this age group that were submitted to our polyclinic in the previous three months.

Data collection tools

The researcher administered the 24 questioned data form face-to-face with the individuals after obtaining their consent. The first section of the data form included questions about the participants' sociodemographic characteristics and chronic illnesses, and the second section asked about the participants' knowledge of various TCM treatments, whether they had any of them performed in the past, which one(s), how they should be used, and by whom. Acupuncture, one of the TCM treatments, was discussed in the last section of the data form. In this section, questions were asked about acupuncture information and sources of information, whether they had acupuncture before or not, the reasons for having acupuncture, who performs it and who and for what it should be performed.

Ethical approval

The University of Health Sciences Şişli Hamidiye Etfal Teaching and Research Hospital Clinical Research Ethics Committee procedure, dated 18.04.2023, and numbered 2307, was used to get ethical committee approval.

Statistical analysis

Data analysis was performed using the SPSS for Windows 25.0 package program and p values of <0.05 were considered significant. Descriptive statistics are presented as mean±standard deviation for continuous and discrete numeric variables, whereas categorical variables are presented as number and percentage. Kolmogrov-Smirrov method was used in normality analysis. Categorical variables were examined using Pearson's Chi-square test, Fisher Exact test and Independent T test.

Results

The study involved a total of 227 individuals. The mean age of the participants was 34.18 years (min:18, max:63). 180 (79.3%) of the participants were women, making up the majority. 68.7% (n=156) of the participants were white-collar workers, while 66.5% (n=151) had a high school degree or higher. When asked if they had a chronic illness, just 42 participants (18.5%) responded that they did.

When asked which TCM method(s) they were familiar with, 11 participants (4.8%) stated that they knew all of the methods asked, while 17 people (7.5%) stated that they had no information about any of the methods. Acupuncture was the most well-known method, with 85.5% (n=194), and pylorotherapy was the least well-known, with 11.5% (n=26). The distribution of the participants' knowledge of TCM methods is shown in Table 1.

Table 1. The distribution of the participants' knowledge of TCM methods

Having knowledge about TCM method	Yes n (%)	No n (%)
Acupuncture	194 (85.5)	33 (14.5)
Phytotherapy (Herbal therapy)	148 (65.2)	79 (34.8)
Hypnosis	148 (65.2)	79 (34.8)
Leech therapy	173 (76.2)	54 (23.8)
Cupping therapy	174 (76.7)	53 (23.3)
Ozone therapy	140 (61.7)	87 (38.3)
Mesotherapy	105 (46.3)	122 (53.7)
Music therapy	89 (39.2)	138 (60.8)
Osteopathy	46 (20.3)	181 (79.7)
Larval therapy	42 (18.5)	185 (81.5)
Prolotherapy	26 (11.5)	201 (88.5)
Reflexology	72 (31.7)	155 (68.3)
Homeopathy	70 (30.8)	157 (69.2)
Apitherapy	50 (22)	177 (78)
Neural therapy	64 (28.2)	163 (71.8)

202 participants (89%) who were asked how TCM methods should be applied said, "in addition to conventional medical practices" 70 participants (30.8%) said "may have side effects" when asked why these techniques shouldn't be used.

When asked who should apply TCM methods, 11% (n=25) of the participants responded that anyone who knows can do so. Table 2 shows the distribution of responses from participants to the question of who can use TCM methods.

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Table 2. Distribution of responses from participants to the question of who can use TCM methods

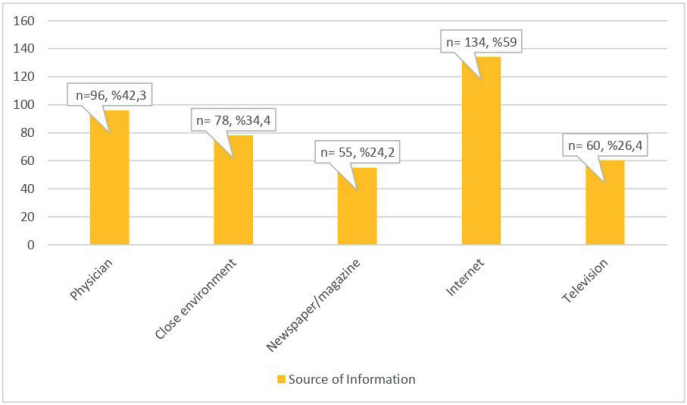
Who can use TCM methods?	Yes n (%)	No n (%)
Physician	214 (94.3)	13 (5.7)
Nurse	55 (24.2)	172 (75.8)
Dentist	33 (14.5)	194 (85.5)
Dietician	28 (12.3)	199 (87.7)
Anyone who knows	25 (11)	202 (89)

71 (31.3%) of the subjects have previously experienced at least one of the TCM methods. There were no subjects who had received prolotherapy and larval therapy. Cupping (n=32, 14.1%), acupuncture (n=27, 11.9%), and phytotherapy (n=19, 8.4%) were the most applied methods.

The mean age difference between participants who had previously used any of the TCM approaches and those who hadn't was statistically significant (p=0.016). When the participants' gender was compared to their previous usage of any of the TCM methods, women used them more frequently than males, and the difference was statistically significant (p=0.018). No statistically significant difference was found between the participants' education level, employment status, chronic disease status, income level and their previous use of TCM methods (p=0.178, p=0.118, p=0.854, p=0.551, respectively).

Among the participants, 167 people (73.6%) had information about acupuncture. Those who previously received acupuncture treatment knew more about the practice with a statistically significant difference (p=0.004). The participants' gender, educational level, income level, presence of a chronic illness, employment status and knowledge of acupuncture did not differ statistically from one another (p=0.830, p=0.610, p=0.350, p=969, p=0.753, respectively).

The distribution of the participants' sources of information about acupuncture is shown in Graphic 1.



Graphic 1. The distribution of the participants' sources of information about acupunture

Table 3 displays the participants' comments on the acupuncture treatment areas. Headache/migraine, weight loss, and musculoskeletal system disorders (such as low back and neck pain) were the three most often used categories.

Table 3. Participants' comments on the acupuncture treatment areas

	Yes n (%)	No n (%)	No opinion n (%)
Weight loss	194 (85.5)	16 (7)	17 (7.5)
Psychiatric diseases (depression etc.)	134 (59)	53 (23.3)	40 (17.6)
Chronic respiratory disease (bronchitis. asthma)	96 (42.3)	73 (32.2)	58 (25.6)
Smoking cessation treatment	176 (77.5)	23 (10.1)	28 (12.3)
Musculoskeletal system disorders	184 (81.1)	19 (8.4)	24 (10.6)
Headache/migraine	196 (86.3)	15 (6.6)	16 (7)
Stroke treatment/rehabilitation	112 (49.3)	52 (22.9)	63 (27.8)
Gastrointestinal system diseases	122 (53.7)	53 (23.3)	52 (22.9)

Acupuncture was viewed as unsafe or detrimental by 18.5% (n=42) of the participants, whereas 25.6% (n=58) thought it was not risky and 55.9% (n=127) were uncertain. The vast majority of those who had previously undergone acupuncture therapy reported that the procedure had been suggested to them by medical professionals (n=17, 63%) and was carried out by medical professionals (n=24, 88.9%). Those who knew about acupuncture and those who had previously had acupuncture said there was no danger or damage in receiving acupuncture, with a statistically significant difference (p=0.015, p=0.000, respectively).

When asked about the reasons for acupuncture treatment, 11 people (40.7%) stated that they had acupuncture for headache/migraine, 6 people (22.2%) for musculoskeletal system diseases (such as low back pain, neck pain), 5 people (18.5%) for weight loss, 4 people (14.8%) for smoking cessation, and 1 person (3.7%) for psychiatric diseases. The average number of sessions was 6.81±7.03 (min: 1, max: 30) Among the participants who had previously undergone acupuncture treatment, 48.1% (n=13) claimed to have benefited from the treatment, 37% (n=10) claimed to have benefited partially, and 4 (14.8%) claimed not to have benefited at all. The mean age of the participants who had previously had acupuncture was statistically significantly higher than that of those who had not (p=0.01). There was no statistically significant difference between the participants'

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gender, education level, income level, employment status and their history of acupuncture therapy (p=0.069, p=0.109, p=0.668, and p=0.810, respectively). The number of sessions and the benefit experienced by the participants in the acupuncture therapy did not significantly correlate (p=0.058).

Discussion

The participants had a thorough understanding of acupuncture, one of the TCM methods whose use is on the rise. Acupuncture was rated as risky by one-fifth of the participants, although those who had knowledge thought it was a less risky technique. Information sources now take on a greater significance. We believe that more information from healthcare experts would be beneficial for these frequently used applications.

The society generally favors TCM methods because of their accessibility, affordability, and social and cultural implications [11]. Globally, there is growing interest in TCM techniques, while usage rates vary by nation. For instance, it is around 66-75% in Belgium, 49% in France, 46% in Australia, 34% in the USA, 33% in the UK, 20-30% in Germany, and 18% in the Netherlands [12]. In our survey, we observed that 31.3% of our participants have previously undergone at least one of the TCM procedures. With the regulation that was issued in 2014 in our nation, TCM centers have begun to be constructed in hospitals, therefore we anticipate that this rate will rise over time. Acupuncture and cupping are the most often used treatments in the 73 hospitals that currently contain TCM clinics in our country [13].

Acupuncture, cupping, and phytotherapy were the most commonly recognized TCM treatments among medical students in Türkiye, whereas prolotherapy, homeopathy, chiropractic, and osteopathy were the least known [14]. In studies where knowledge and attitudes about TCM were assessed in people applying to family health centers, cupping, acupuncture, and leech therapy were most frequently known and preferred practices among the participants, while homeopathy and larval therapy were least preferred [15,16]. Similar to earlier studies, the two most well-known uses in our study were acupuncture and cupping.

The correct application of TCM methods may differ depending on the level and source of knowledge of the individuals requesting them. When asked about their main sources of acupuncture information, participants in our study listed the internet, physicians, and personal relationships in that order. This is why, in our opinion, more people are using and promoting the internet today. Although technology makes it easier to get information, the internet also makes it challenging to find correct information [17]. However, proper and effective application of these techniques depends on healthcare practitioners having the necessary knowledge. There are 2790 licensed doctors who have completed a year-long acupuncture training program in our country [13].

The most popular TCM technique is acupuncture, which is a branch of traditional Chinese medicine and has been used for more than 4,000 years. Nearly one in ten Australians have had acupuncture therapy, either in government-run or privately-run facilities. Acupuncture use is higher in the United States of America, ranging between 15.1% and 34% [18]. In our study, 11.9% of participants used acupuncture. The fact that acupuncture has long been supported by scientific studies and evidence is one of the primary factors in its widespread use [19,20]. Guidelines on acupuncture fundamental education and safety were released by 113 member states in the WHO Traditional and Complementary Medicine 2019 Global Report [21]. According to these guidelines, there should be adequate training programs for acupuncture practitioners, as well as what professional specialists should consider [21].

There are 28 diseases and disorders for which acupuncture is helpful, according to a report World Health Organization published in 2003 [22]. In addition to pain management [23] acupuncture has been used to treat a variety of illnesses, including asthma [24], dermatitis [25], cancer [26], polycystic ovarian syndrome [27] and insomnia [28]. In our study, participants' knowledge of their most common uses included headache, obesity, musculoskeletal pain, and smoking cessation. The majority of the participants in our study had a high level of education, were female, white-collar workers and young. Considering that headache is mostly seen in the young age group and working at a desk brings chronic musculoskeletal system pain, we think that the search for solutions to these chronic complaints of the patients caused acupuncture to be the most preferred application in our study [29,30]. The fact that women are more likely to experience issues with the musculoskeletal system, migraines, and weight loss, which are among the conditions where acupuncture is most commonly utilized, may also play a role in why women use TCM methods more frequently, according to our study [31-33].

About 20% of the participants in our survey believed that acupuncture was a risky or harmful procedure. 73.6% of people have knowledge about acupuncture. Although those who had information believed that acupuncture was less dangerous or risky, the majority of participants got their information through the internet, which we believe made it challenging for a group to find the accurate information. We believe that the participants' perception of acupuncture as risky was influenced by the information they learned about it from the media rather than from reliable scientific sources. Despite these factors, acupuncture was one of the most commonly used applications in our survey, and the majority of the patients who experienced it were referred by physicians. It is encouraging to note that the majority of study participants agreed that complementary medicine techniques should be used in conjunction with contemporary medicine and that it was appropriate for physicians to perform them, as was the case in a related study [14]. As a result, we believe that healthcare providers ought to inform the public more about this issue.

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Among the people who had previously received treatment, 48.1% (n=13) stated that they benefited from the treatment, 37% (n=10) stated that they partially benefited from the treatment, and 4 people (14.8%) stated that they did not benefit from the treatment. Researches continue to show that treatments are effective. For instance, 68% of patients who used acupuncture said they considered the treatment useful, but the impact lasted less than one day in a study assessing the rate of benefit from alternative therapies used to treat migraines [34]. Similar results were observed in patients who received acupuncture treatment for chronic back pain, including a considerable reduction in pain intensity and a significant improvement in overall wellbeing [35]. Acupuncture treatment combined with a change in lifestyle had a larger impact on obesity than lifestyle change alone, according to a study done on patients with a body mass index of 25 or higher [36].

The limitations of our study are that this study was not conducted in a larger population and the number of participants with chronic diseases, which constitute the basis of the patient population using TCM practices, is low.

Conclusion

Although acupuncture is one of the most well-known TCM uses, its use remains in the background. The internet being the most widely used information source limits access to reliable data. Acupuncture should be performed, like all TCM applications, by qualified physicians in authorized centers while taking the outcomes into consideration. In order to achieve more successful effects, TCM treatments should be used efficiently together with modern medicine.

Conflict of Interests
The authors declare that there is no conflict of interest in the study.

Financial Disclosure
The authors declare that they have received no financial support for the study.

Ethical Approval
The University of Health Sciences Şişli Hamidiye Etfal Teaching and Research Hospital Clinical Research Ethics Committee procedure, dated 18.04.2023, and numbered 2307, was used to get ethical committee approval.

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