

# Evaluation of the Perspective of Healthcare Professionals on Complementary Medicine and Supplementary Foods in Turkey

Ezel N<sup>1\*</sup>, Dedeoglu BD<sup>2</sup>, Ozturk SB<sup>3</sup>, Buyukhelvacigil T<sup>4</sup>, Buyukhelvacigil HF<sup>5</sup>, Koparal B<sup>6</sup> and Buyukhelvacigil M<sup>7</sup>

<sup>1</sup>Zade Vital® Nutritional Supplements, Prescription Channel Promotion Manager, Turkey

<sup>2</sup>Zade Vital® Nutritional Supplements, Compliance and Pharmacovigilance Manager, Turkey

<sup>3</sup>Zade Vital® Nutritional Supplements, Chemical and Biological Engineer, Turkey

<sup>4</sup>Zade Vital® Nutritional Supplements, General Manager, Turkey

<sup>5</sup>Zade Vital® Nutritional Supplements, Turkey

<sup>6</sup>Zade® Global, General Manager, USA

<sup>7</sup>Zade® Global, CEO, USA

**\*Corresponding author:** Nihal Ezel Zade, Vital® Nutritional Supplements, Biologists, Prescription Channel Promotion Manager, Istanbul, Turkey, Tel: +90 541 275 71 81; Email: nezel@zade.com.tr

## Research Article

Volume 3 Issue 1

**Received Date:** January 16, 2019

**Published Date:** January 25, 2019

**DOI:** 10.23880/oajpr-16000171

## Abstract

The recognition of complementary medicine and its inclusion in treatment processes has shown a significant increase in the last decade worldwide. Employing methods of complementary medicine in preventive and complementary treatment becomes increasingly widespread in Turkey. Day by day, domestic and international manufacturers keep putting supplementary foods used in these methods on the Turkish market. However, research in Turkey on the consumption of supplementary foods is quite limited. Understanding the perspective of physicians on this issue to consume supplementary foods more consciously, investigating their roles in users' preferences of safe products, and determining the points of improvement in this field are important for health institutions to develop a perspective on this issue. This research was conducted with 282 people who are physicians from various fields of specialization or dieticians from different provinces of Turkey. Data were collected with a questionnaire from November to December 2018 (2 months). The activities of participants in the field of complementary medicine, their purposes of using supplementary foods, and their perspectives on product safety were investigated. It is seen that physicians and dieticians use supplementary foods for preventive or therapeutic purposes, and prefer the products of brands that they experience or trust while prescribing. The majority of participants do not find safe to supply supplementary foods outside the pharmacy. The proper use of

supplementary foods by physicians is important for improving the quality of life of the population. Further studies are needed on this issue to improve the standard of preventive health services provided by healthcare professionals.

**Keywords:** Complementary medicine; Supplementary foods; Physician; Dietitian; Preventive health; Nutritional supplement

## Introduction

Our country hosts a large number of medicinal and aromatic plants with rich flora. The use of plants in treatment began with the history of mankind. Thousands of years ago, the man recognized the therapeutic power of plants and benefited from it to live healthily. Folk medicines in Anatolia where folk medicine practices are common, are the practices that have come to our day after long experiences. Many drugs used in modern medicine are also derived from plants [1]. It is imperative that traditional and complementary medical approaches be indicated in both human and veterinary medicine. Many physicians, patients, and even healthy individuals all over the world are curious and care about these methods and want to try them [2]. The aim of this study was to determine the perspective of physicians on complementary medicine methods and supplementary foods, frequency of prescribing supplementary foods, their purposes, to evaluate its quality, to present the way of supply, to discuss the factors affecting its use and to reveal the improvements that can be made in this field in Turkey.

## Material and Method

It was performed by Zade Vital Nutritional Supplement to investigate the ways of health professionals to obtain information about complementary medicine, the safety of supplementary foods, and the purpose of their therapeutic use and to promote the proper use of supplementary foods in Turkey.

Research questions are as follows;

1. Did you have Phototherapy or a similar course at your university?
2. Do you have a certificate on this issue? If not, would you consider receiving it?
3. Have you attended a seminar, symposium, or congress on complementary medicine?
4. Do you include supplementary foods in the treatment of your patients?
5. What is your reason for not using supplementary foods?
6. For what purpose do you prescribe supplementary foods?
7. Can you give us 3 product names you prescribed?
8. Which of the following reflects your opinion about supplying nutritional supplements from outside the pharmacy?
9. How do you assess the safety of supplementary foods?
10. Is there any supplementary food that you think you would use if it would be available in Turkey?

The study included 7 regions of Turkey. Dietitians and physicians from various specialties who have included Complementary Medicine practices in their treatment from 21 provinces selected from these regions participated in the study. Specialties of the participating specialist doctors are Pediatrics, ENT, Cardiology, Family medicine, FTR, Internal Medicine, Endocrinology, Urology, Gynecology and Obstetrics, Orthopedics, Neurology, Dermatology, Ophthalmology, Dental Diseases, Psychiatry, Medical Genetics, Gastroenterology, General Surgery, Chest Diseases, and Oncology. The provinces participating in the study are Istanbul, Izmir, Ankara, Adana, Konya, Eskisehir, Muğla, Balıkesir, Çanakkale, Yalova, Bursa, Afyonkarahisar, Kayseri, Şanlıurfa, Erzurum, Diyarbakır, Mardin, Malatya, Kahramanmaraş, Gaziantep, and Samsun. Participants responded voluntarily from provincial and district centers. In the questionnaire, the reason for the addition of supplementary foods to treatments, the most commonly used supplementary foods, and their opinions on the safety of supplementary foods were investigated with alternative response options. A total of 31 promotional representatives took the role of interviewer in the study. A questionnaire was applied to 310 participants and available data were obtained from 282 participants. 28 participants refused to take the questionnaire or answered the questions incomplete. Based on the data obtained, it is observed that most of the doctors and dieticians who have a high proportion of supplementary foods in their treatment do not have a training certificate on this issue.

## Results

	Number of people who prescribe supplementary foods	Number of participants attended seminar or congress on complementary medicine	Percent
Physician	143	75	52.40%
Dietician	114	75	65.80%
Total	257	150	58.40%

Table 1: The topic-related seminar or congress attendance rate of physicians and dieticians prescribing supplementary foods.

	Number of people who prescribe supplementary foods	Number of People with Complementary Medicine Certificate	Percent
Physician	143	37	26%
Dietician	114	24	21%
Total	257	61	24%

Table 2: The rate of having a certificate in physicians and dieticians prescribing supplementary foods.

I do not have knowledge	10	41.67%
Drug treatment is sufficient	4	16.67%
Costs are high	4	16.67%
I do not believe	2	8.33%
Other	4	16.67%
Total	24	100.00%

Table 3: The rate of reasons for not prescribing for physicians who do not prescribe supplementary foods.

It is safe	20	7.09%
They are products with low-quality standard	14	4.96%
It is difficult to guarantee the accuracy of the plant	18	6.38%
I do not find it safe to be provided outside the pharmacy	220	78.01%
Other ...	10	3.55%
Total	282	100.00%

Table 4: The percentages of the opinion of participants about the safety of supplying supplementary foods.

I prefer only companies I trust	163	57.80%
It is safe because it is natural.	12	4.26%
It is safe because the toxic dose limit is quite high	1	0.35%
I only recommend the products I've experienced to my patients	93	32.98%
Other ...	13	4.61%
Total	282	100.00%

Table 5: Safety assessment percentages of participants in supplementary foods.

Classification	Number of Preferences	Percent
Fish Oil and Vegetable Oils	327	47.88%
Tea and herbal supplements with extract	101	14.79%
Probiotic	58	8.49%
Vitamin & Minerals	73	10.69%
Bee Products	12	1.76%
Other	112	16.40%
Total	683	100.00%

Table 6. Percentage of product groups by their prescription frequency.

Area of Specialization	Number of Participating Specialists	Number of TEG Prescribers	Percent
Pediatrician	39	38	97%
Urologist	11	10	91%
Family doctor	21	19	90%
Obstetrician and gynecologist	20	17	85%
ENT Specialist	17	11	65%

Table 7: Supplementary foods prescription rate by specialties.

## Discussion

### Traditional and Complementary Medicine in Medicine in the Past

It is very difficult to define the concept of traditional medicine on a global scale. The knowledge of traditional medicine may be transferred from generation to generation or may be considered as a special field of expertise of some families. As, sometimes, the use of these treatment systems remains local, the local treatment systems of a country often come to the mind when it comes to traditional medicine and therefore, it is also called home treatment by some anthropologists [3].

**Chinese medicine:** Today, it is the most common traditional treatment system applied in all parts of the world. Chinese Medicine treats the patient and the patient's symptoms with a holistic approach and defines Yin and Yang's state of being in equilibrium as being healthy. Yin represents the place, cold, and femininity that affect the interaction between the five basic substances, metal, wood, water, fire, and earth. Yang represents the sky, warm, and masculinity. In Chinese Medicine, there are many modalities such as herbal medicines and spices, manual therapies, acupuncture, and exercises such as tai chi, breathing techniques, and diet [3].

**Tibetan medicine:** Tibetan Medicine which is considered to be a bright pearl of Traditional Chinese Medicine is a traditional system that has been applied for about 2500 years. Tibetan medicine uses a wide variety of materials such as herbal products, trees, rocks, resins, earth, and precious metals [3].

**Korean medicine:** In Korean Medicine, herbal medicines, acupuncture, moxibustion therapy (plaster), cupping (wet and dry), aromatherapy, and meditation are used and Sasang typology plays an important role. According to Sasang typology, people are divided into four groups based on differences in their susceptibility to plants and drugs, the balance of internal organs, physical properties, and psychological characteristics. Diagnosis and treatment of diseases are done according to this grouping [3].

**Indian medicine:** It identifies with Ayurveda, meaning life science. Herbal formulas, yoga, meditation, natural, organic, herbal and pure nutrition, diet and aromatic massage have an important place in this treatment method in which the imbalance of chakras and doshas which means energy centers is tried to be eliminated [3].

**Unani (Yunani) medicine:** There are three basic treatments in Unani Medicine where health depends on air, food and drinks, sleep and wakefulness, excretion and accumulation, physical activity and emotional activities. These treatments are regimental therapy, pharmacotherapy, and surgery [3].

**African medicine:** When it comes to traditional African medicine, a system in which drugs derived mainly from region-specific plants are prepared by conventional healers comes to mind. Although folk remedies in the region are aimed at finding solutions to many health problems, it is known that they are specifically prepared for HIV/AIDS treatment [3].

### Today of Traditional and Complementary Medicine in Medicine

Today, disciplines such as medicine, veterinary medicine, dentistry, and pharmacy adopt and suggest the evidence-based medicine approach in both practice and curriculum. Basing the medical education and practice on evidence is, of course, due to needs. A few of them are increasing the reliability and responsibility levels of physicians, providing accountable modern practices based on ethical principles for them, equipping patients, profession, and physicians with scientific power. Data on complementary medicine cause physicians to approach this area with prejudice because they are based on fewer studies, more observational, and quantitative data. One of the reasons that led to this prejudice is having the education of physicians and dieticians on traditional and complementary medicine through organizations including short-term seminars, congresses, etc., rather than undergraduate or graduate curriculum and processes [1]. Data from our study also support this fact. Only 11.18% of the physicians and 32.23% of the dieticians participating in the study stated that there were lessons on traditional

and complementary medicine methods during their university education. Given these ratios, the introduction of traditional and complementary medical education in undergraduate and graduate education is an essential need for the effective and safe use of today's supplementary foods.

Traditional and complementary medicine has been on the agenda of the World Health Organization (WHO) General Assembly for many years. The member states are invited to cooperate for establishing a national policy on traditional medicine, developing national legislation on traditional and herbal medicines, addressing traditional medicine within the scope of basic health services, and conducting researches in these areas with national regulations for traditional medical practice [4].

### **Traditional and Complementary Medicine and Supplementary Foods**

In today's world, the use of traditional and complementary medicine practices and accordingly, use of supplementary food is increasing. Recently, undesired and unexpected conditions caused by toxicities and drug interactions due to the given products have been observed. A large part of herbal products is offered to the public through the online sales sites, herbalist, spice sellers, or herbal products selling points. Only a small part of the herbal products (phytopharmacies and phytotherapeutics) are delivered to the public through pharmacies. When it is approached from a scientific point of view, it can easily be seen that the sale of products outside of the pharmacy may be a great danger for the society. In particular, the accuracy of the plants sold, the quality of the products, and inaccuracies of the information transferred by the person who sales due to lack of knowledge pose a big problem [5]. These observations suggest that serious regulations and practices are needed in the production, licensing, sale, and inspection of herbal products marketed under the name of alternative or supplementary products [6]. As seen in this study, physicians and dietitians support these ideas. According to the results, 78% of the participants do not find safe to supply supplementary foods outside the pharmacy (Table 4). Additionally, 58% of the participants only prescribe the products of the brands they trust; while 33% prefer to prescribe the products, they experience (Table 5). Further research and awareness-raising social responsibility projects are needed to generalize traditional and complementary medicine methods and to use supplementary foods safely.

### **Supplementary Food Market in Turkey and in the World**

Particularly, in Europe and America, herbal nutritional supplement products are used extensively and have a positive effect on the health of people and make people feel energetic, better, and healthier. Hence, healthier societies emerge; people get sick more difficultly or experience the diseases mildly. Thus, workforce loss is prevented in the society and drug expenditures of states decrease. Many international researches show that multivitamin and minerals are the most commonly used nutritional supplement products. Estimates suggest that around half of the US population uses nutritional supplements. Euromonitor International predicts that the nutritional supplement market in Europe will reach 7.9 billion euros from 7.2 billion Euros in 2020 with a growth rate of 9.5% [7].

According to Euromonitor estimates, while the largest markets in Europe are Western Europe, are mainly Italy and Germany, among Eastern European countries, Romania, Turkey, Bosnia and Herzegovina, Macedonia, and Russia are the fastest growing and promising countries ([www.htc.co.uk](http://www.htc.co.uk)). The nutritional supplement market is growing in Turkey. The estimated size of the market is 1.124 Million TL by the first half of 2018 ([ieis.org.tr](http://ieis.org.tr)).

### **Specialist Physicians and Their Supplementary Food Preferences in Turkey**

In this study, when the supplementary food preferences prescribed by the participants are examined, the awareness level is ranked from the highest to lowest as follow: fish oil, vegetable oils, tea and herbal supplements with extract, vitamins and minerals, probiotics, and bee products (Table 6). When the specialty groups participating in the study were discussed separately, and the rates of supplementary food prescribing were compared, the leading specialty prescribing the supplementary food in Turkey is Pediatrics with 97% followed by urology with 91%, family physicians with 90%, gynecologists and obstetricians with 85. With 65%, ENT specialists seem to prescribe less supplementary food than other specialties (Table 7). Given the prescriptions of these specializations, it is revealed that pediatricians (53%), obstetricians and gynecologists (65%), and Family Physicians (53%) appear to prescribe mostly omega 3 fish oils while Urologists pumpkinseed oil (40%) and ENT specialists, Black cumin seed oil (55%).



In the light of these data, the number of products that physicians know and use trustfully remains very low compared to hundreds of them in the Turkey market, giving rise to the thought of the points of development of this area. The reasons for this condition may be due to the fact that the scientific publications on supplementary foods are made in small samples compared to drug publications, they do not take place in the international arena, and it is rather limited to product-specific regions.

## Conclusion

In recent years, traditional and complementary medicine practices have been developed and changed due to the environment driven by a traditional and complementary medicine-oriented approach, led by developed and developing countries. The level of admission to these methods is estimated to be 80% in developing countries and 50% in developed countries [2]. With the increase in these methods, the safety and quality standard of the supplementary foods added as a support to the treatments is an important agenda item. Along with the basic tests, specific tests for these products should also be developed. There are studies of the Republic of Turkey Ministry of Health on this subject [8]. This scope should be developed and adapted for all supplementary food groups. The Turkish Standards Institute also has studies on some medicinal and aromatic plants. However, these are not sufficient and cover certain plants. These standards should be expanded and adapted to the current conditions [1]. It is also important for health professionals to develop themselves as practitioners of this treatment.

When the results of the study are examined, it is seen that 58.4% of the participants (91.13%) who prescribed supplementary foods have information through the congresses and symposiums they participated (Table 1), and 24% through the certification program (Table 2). Improvements in the basic education system should be done to support the traditional and complementary medicine phenomenon with scientific studies and to improve the safety perception of supplementary foods. Thus, an action plan can be created against the rate of lack of knowledge (Table 3), which is the leading reason for not prescribing with 40% of physicians who do not prescribe supplementary foods.

According to the latest researches, the elderly population is expected to increase by 201% between the years of 2008-2040 in Turkey. The rapid aging of the population increases the risk of some chronic diseases and consequently, the emergence of new and serious problems can be foreseen for public health [9]. Measures

should be taken to protect public health by correctly evaluating these data. The relevant companies should work under the control of health authorities in order to improve the quality of preventive health services, to have the public to consult with their physician on this issue, to provide the necessary equipment for the physician to transfer the most accurate information, and to ensure the proper supply and dosing of the recommended products. The expansion of the scale of the studies in this area and increasing the number of them are important steps in the development of this issue.

**Acknowledgment:** This research was supported by Zade® & Zade Vital® Ibn Sina R & D Center, and Nutritional Supplements Zade Vital® Turkey.

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