



The Evaluation of the Use of Traditional and Complementary Medicine in Children and the Level of Knowledge of Families in Bağcılar Region of Istanbul

İstanbul Bağcılar Bölgesinde Çocuklarda Geleneksel ve Tamamlayıcı Tıp Kullanımı ve Ailelerin Bilgi Düzeyinin Değerlendirilmesi

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Abstract

Objective: Nowadays, there are compelling data on the increase in traditional and complementary medicine practices in adults. Although the use of complementary medicine practices in children is frequently observed, studies on children are more limited in this subject. Studies on children mostly include those with chronic diseases. Our study aimed to evaluate the use of traditional and complementary medicine therapies in children without chronic diseases and parents' knowledge.

Method: The study was conducted at Bağcılar Training and Research Hospital Pediatric Clinic between 1 December 2018 and 28 February 2019. In the study, 200 patients in the 0-15 age group without any known chronic diseases were included. A questionnaire form was applied to either mothers or fathers of the patients, and the practices they performed in traditional medicine, their knowledge, and experience, and their socioeconomic-cultural status were questioned.

Results: In our study, which evaluated the use of traditional and complementary medicine methods in children without chronic diseases, 95.5% of the children had a history of the use of at least one complementary medicine method. The use of herbal tea was the most preferred complementary medicine method (68.8%). Other methods were the use of immune boosters, prayers, massage, nutrition-diet, acupuncture, and music. More than half of the patients (56%) had heard or learned about complementary medicine methods from their family elders. The rate of those who had learned about them from the media was determined to be 14%, and the rate of those who had learned from

Öz

Amaç: Günümüzde, yetişkinlerde geleneksel ve tamamlayıcı tıp uygulamalarının artması ile ilgili ilgi çekici veriler mevcuttur. Bu konuda çocuklarda yapılan çalışmalar daha sınırlı olmakla birlikte, tamamlayıcı tıp uygulamalarının çocuklarda kullanımı sıklıkla görülmektedir. Çocuklardaki çalışmalar daha çok kronik hastalığı olanları kapsamaktadır. Çalışmamızda kronik hastalığı olmayan çocuklarda geleneksel ve tamamlayıcı tıp tedavilerinin kullanımı ve ebeveyn bilgilerinin değerlendirilmesi amaçlanmıştır.

Yöntem: Çalışmamız 1 Aralık 2018-28 Şubat 2019 tarihleri arasında Bağcılar Eğitim ve Araştırma Hastanesi Çocuk Kliniğinde yapılmıştır. Çalışmaya, bilinen kronik hastalığı olmayan 0-15 yaş grubunda 200 hasta dahil edilmiştir. Hastaların anne veya babalarına tamamlayıcı ve geleneksel tıp konusunda yaptıkları uygulamaları, bilgi ve deneyimlerini, sosyoekonomik-kültürel durumlarını sorgulayan anket formu uygulanmıştır.

Bulgular: Kronik hastalığı olmayan çocuklarda geleneksel ve tamamlayıcı tıp yöntemleri kullanımının değerlendirildiği çalışmamızda çocukların %95,5'inde en az bir tamamlayıcı tıp yöntemi kullanım öyküsü vardı. Bitki çayı kullanımı en sık (%68,8) tercih edilen tamamlayıcı tıp yöntemi idi. Bağışıklık güçlendirici, dua, masaj, beslenme-diyet, akupunktur ve müzik kullanılan diğer yöntemlerdi. Hastaların yarısından fazlası (%56) tamamlayıcı tıp yöntemini aile büyüklerinden duymuş ya da öğrenmiştir. Yine medyadan öğrenenlerin oranı %14 ve arkadaşından öğrenenlerin oranı %6,5 olarak bulunmuştur. Sadece %3,5 gibi düşük bir oran tamamlayıcı tıp yöntemini sağlık personelinin öğrendiği görülmüştür.



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Abstract

their friends was found to be 6.5%. The low rate of only 3.5% had learned about the complementary medicine method from healthcare personnel.

Conclusion: It is observed that traditional and complementary medicine practices have been started to be widely used also in children. We think that it would be healthier for families to learn these practices from conscious sources.

Keywords: Children, parents, traditional and complementary medicine

Öz

Sonuç: Geleneksel ve tamamlayıcı tıp uygulamalarının çocuklarda da yaygın olarak kullanılmaya başlandığı görülmektedir. Ailelerin bu uygulamaları bilinçli kaynaklardan öğrenmelerinin daha sağlıklı olacağını düşünmekteyiz.

Anahtar kelimeler: Çocuklar, ebevenyler, geleneksel ve tamamlayıcı tıp

Introduction

In recent years, traditional and complementary medicine practices have been widely used as auxiliary treatment methods for modern medicine (1). Nowadays, there are compelling data on the increase in the use of traditional and complementary medicine in adults. On the other hand, although the use of traditional and complementary medicine practices in children is frequently observed, studies conducted on children are more limited. According to the results of the studies conducted abroad, the use of traditional and complementary medicine in hospitalized children as well as in outpatient children ranges from 1.8% to 84% (2-5). In a paper reviewing the studies conducted in European countries, the use of traditional and complementary medicine in children over the past year was detected to be 56% (6). In the studies conducted in our country, the use of traditional and complementary medicine practices in children ranges from 56.5% to 87% (7-11). As can also be understood from the results of all these studies, the use of traditional and complementary medicine in children is also generally high in our country. It is known that the use of traditional and complementary medicine is common at any age, and this frequency increases in chronic diseases (12,13). In our country, studies on the use of traditional and complementary medicine have generally been conducted on children with chronic diseases (14-16). Herbal remedies, homeopathy, reflexology, and acupuncture are among the most popular therapies used in children (17,18). Discomfort and dissatisfaction with conventional medicine and positive feedback from friends and families are among the reasons for the prevalence of the use of traditional and complementary medicine (19,20).

Complementary and alternative medicine methods are also frequently applied to children without chronic diseases. However, there are no studies in an adequate number and of an adequate quality (21). Providing high-quality data on the use of traditional and complementary medicine methods in children will ensure that all healthcare professionals dealing

with child health inform patients and their families about useful traditional and complementary medicine methods. In this study, in order to increase the sensitivity of parents, educators, and healthcare personnel with regard to this issue and to shed light on other studies to be conducted, the evaluation of the use of complementary and alternative therapies in children without chronic diseases and parental knowledge was aimed.

Materials and Methods

The study was carried out at Bağcılar Training and Research Hospital Pediatric Clinic between 1 December 2018 and 28 February 2019. Two hundred patients, who were in the 0-15 age group and did not have any known chronic diseases (chronic kidney disease, diabetes, muscle, heart, asthma, neurological, or genetic disease), were included in the study. A questionnaire form consisting of 25 questions was applied to the mothers or fathers of the patients. In this form, the age of the child, mother, and father, the occupation of the mother and father, their socioeconomic and sociocultural level, whether there was any traditional and complementary medicine method they used, from whom they learned about this, when (before applying to the health institution, after applying, concurrent with treatment) and why they chose a traditional and complementary medicine method (the difficulty in accessing health services, abstaining from drug side effects), and whether they needed more knowledge about traditional and complementary medicine were questioned.

For the study, written and verbal consent was obtained from the families. Ethics committee approval was obtained from the local ethics committee of our hospital (ethics committee approval no: 2019.01.2.02.106.rl.006).

Statistical Analysis

Whether the variables were normally distributed or not was examined with histogram graphs and the Kolmogorov-Smirnov test. While presenting descriptive analyses, mean,

standard deviation, median, and minimum-maximum values were used. It was compared with the Pearson's chi-square and Fisher's exact tests in 2x2 tables. The independent samples t-test was used when the normally distributed (parametric) variables were evaluated between the groups, and the Mann-Whitney U test was used when the non-normally distributed (non-parametric) variables were evaluated between the groups. Results with a p-value below 0.05 were evaluated as statistically significant results.

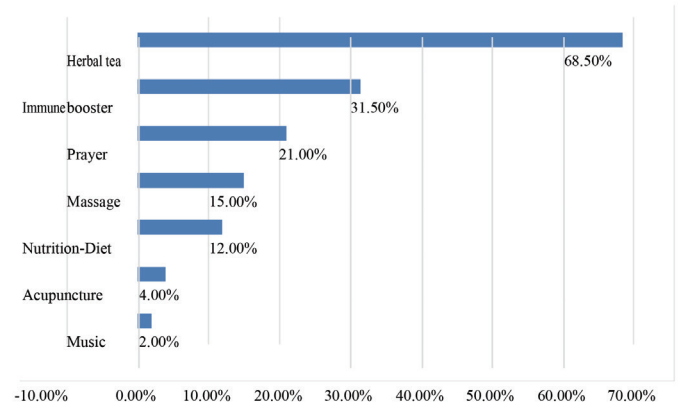
Results

A total of 200 children, including 104 males (52%) and 96 females (48%), were included in the study. The demographic data of the study participants were summarized in Table 1. The mean age of the children participating in the study was 6.97 ± 4.19 years, the mean age of the mothers was 34.23 ± 7.25 years, and the mean age of the fathers was 37.37 ± 7.20 years. As a traditional or complementary medicine method, acupuncture was used in 8 children (4%), herbal tea in 137 children (68.50%),

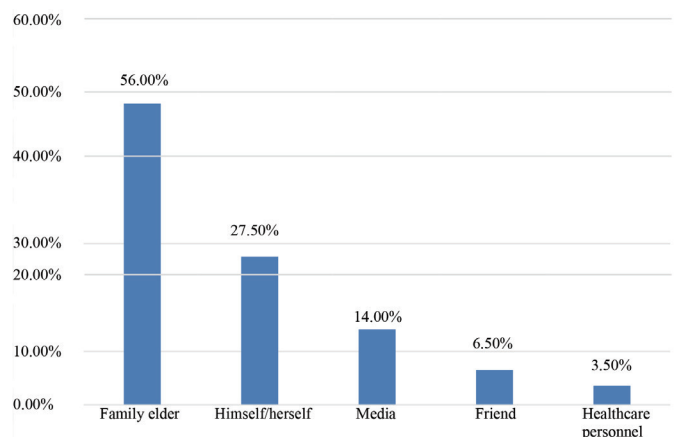
nutrition-diet in 24 children (12%), massage in 30 children (15%), immune boosters in 63 children (31.50%), music in 4 children (2%), and prayers in 42 children (21%) (Graph 1). It was determined that there were 112 people (56%) who had learned traditional or complementary medicine methods from their family elders, 28 people (14%) who had learned them from the media, 13 people (6.50%) who had learned them from their friends, and 7 people (3.50%) who had learned them from healthcare personnel (Graph 2). Demographic data were compared according to the use of traditional or complementary medicine methods. Those who did not use traditional or complementary medicine methods had low monthly income ($p=0.039$). The rate of being married among parents who used traditional or complementary medicine methods was higher compared to those who did not use them ($p=0.015$). The rate of wanting to receive counseling was higher among those who used traditional or complementary medicine methods than those who did not use them ($p=0.012$) (Table 2).

Table 1. The demographic characteristics of the study participants

		n	%
Gender	Male	104	(52.00)
	Female	96	(48.00)
Monthly income	Low	30	(15.00)
	Medium	124	(62.00)
	Good	46	(23.00)
Educational status	Literate	22	(11.00)
	Primary school	46	(23.00)
	High school	70	(35.00)
Marital status	University	62	(31.00)
	Married	197	(98.50)
Family structure	Divorced	3	(1.50)
	Nuclear	127	(63.50)
	Extended	73	(36.50)
Purpose of use	Treatment	22	(11.52)
	Protection	84	(43.98)
	Support	85	(44.50)
When did he/she use it?	Before the medical doctor	164	(82.00)
	After the medical doctor	36	(18.00)
Did he/she benefit from it?	No	28	(14.00)
	Yes	172	(86.00)
Does he/she want to receive counseling?	No	59	(29.50)
	Yes	141	(70.50)



Graph 1. Methods used as traditional or complementary medicine



Graph 2. Sources from which traditional or complementary medicine methods are learned

Demographic data were compared according to the state of benefiting from traditional or complementary medicine methods. Accordingly, the monthly income of those who benefited from them was higher than those who did not benefit ($p=0.021$). The rate of being a university graduate was high among those who benefited from traditional or complementary medicine methods ($p=0.040$), and the rate of the nuclear family structure was also high among those who benefited from them ($p<0.001$) (Table 3).

The rate of benefiting from the methods used is given in Table 4. It was determined that herbal teas were benefited from at most. Demographic data were compared according to the state of wanting to receive counseling. Accordingly, the rate of having a nuclear family structure was significantly higher among those who wanted to receive counseling ($p=0.016$) (Table 5).

Discussion

Traditional and complementary medicine methods have been increasingly used in recent years. The number of publications on this subject increases in parallel with its widespread clinical use. However, the number of studies evaluating the use of traditional and complementary medicine methods in children is very low compared to

the number of studies conducted on adults, and more studies are needed on this subject. According to the results of our study, there was a history of the use of at least one traditional and complementary medicine method in 191 (95.5%) children. At the same time, the use of herbal teas was the most frequently preferred (68.8%) traditional and complementary medicine method. Furthermore, immune boosters, prayers, massage, nutrition-diet, acupuncture, and music were the other methods used. While traditional and complementary medicine methods can be used for therapeutic purposes in chronic diseases, they can also be used to boost the immune system in healthy children

Table 3. Comparison of demographic data according to the state of benefiting from traditional or complementary medicine methods

		Did he/she benefit from them?				p
		No		Yes		
		n	%	n	%	
Gender	Male	12	(60.00)	87	(50.88)	0.440
	Female	8	(40.00)	84	(49.12)	
Monthly income	Low	6	(30.00)	20	(11.70)	0.021
	Medium	13	(65.00)	107	(62.57)	
	Good	1	(5.00)	44	(25.73)	
	Literate	4	(20.00)	17	(9.94)	
	Primary school	7	(35.00)	36	(21.05)	
Educational status	High school	8	(40.00)	59	(34.50)	0.040
	University	1	(5.00)	59	(34.50)	
Marital status	Married	20	(100.00)	169	(98.83)	0.627
	Divorced	0	(0.00)	2	(1.17)	
Family structure	Nuclear	4	(20.00)	117	(68.42)	<0.001
	Extended	16	(80.00)	54	(31.58)	

Table 2. Comparison of demographic data according to the use of traditional or complementary medicine methods

		State of use				p
		Does not use		Uses		
		n	%	n	%	
Gender	Male	5	(55.56)	99	(51.83)	0.827
	Female	4	(44.44)	92	(48.17)	
Monthly income	Low	4	(44.44)	26	(13.61)	0.039
	Medium	4	(44.44)	120	(62.83)	
	Good	1	(11.11)	45	(23.56)	
Educational status	Literate	1	(11.11)	21	(10.99)	0.878
	Primary school	3	(33.33)	43	(22.51)	
	High school	3	(33.33)	67	(35.08)	
	University	2	(22.22)	60	(31.41)	
Marital status	Married	8	(88.89)	189	(98.95)	0.015
	Divorced	1	(11.11)	2	(1.05)	
Family structure	Nuclear	6	(66.67)	121	(63.35)	0.840
	Extended	3	(33.33)	70	(36.65)	
Does he/she want to receive counseling?	No	6	(66.67)	53	(27.75)	0.012
	Yes	3	(33.33)	138	(72.25)	

Table 4. The rate of benefiting according to the methods used

	Did he/she benefit from them?			
	Yes		No	
	n	%	n	%
Acupuncture	7	(87.50)	1	(12.50)
Herbal tea	123	(89.78)	14	(10.22)
Nutrition-diet	20	(83.33)	4	(16.67)
Massage	26	(86.67)	4	(13.33)
Immune booster	57	(90.48)	6	(9.52)
Music	3	(75.00)	1	(25.00)
Prayer	35	(83.33)	7	(16.67)

Table 5. Comparison of demographic data according to the state of wanting to receive counseling

		Does he/she want to receive counseling?				P
		No		Yes		
		n	%	n	%	
Gender	Male	35	(59.32)	69	(48.94)	0.180
	Female	24	(40.68)	72	(51.06)	
Monthly income	Low	12	(20.34)	18	(12.77)	0.146
	Medium	38	(64.41)	86	(60.99)	
	Good	9	(15.25)	37	(26.24)	
Educational status	Literate	7	(11.86)	15	(10.64)	0.308
	Primary school	18	(30.51)	28	(19.86)	
	High school	16	(27.12)	54	(38.30)	
Marital status	University	18	(30.51)	44	(31.21)	0.155
	Married	57	(96.61)	140	(99.29)	
Family structure	Divorced	2	(3.39)	1	(0.71)	0.016
	Nuclear	30	(50.85)	97	(68.79)	
	Extended	29	(49.15)	44	(31.21)	

and to support normal growth and development (1). In the literature, most of the studies were conducted on children with asthma, attention deficit and hyperactivity disorder, cancer, pediatric rheumatological disease, neurological disease such as cerebral palsy or other chronic diseases/deficiencies (2-6). In our study, children without any chronic disease were included.

Studies on the frequency and prevalence of the use of traditional and complementary medicine methods in children have been conducted, and quite different results have been obtained. These differences in the literature have been attributed to different factors, such as the sociocultural structure and economic status of the country and families included, the country's health policy, and the characteristics of children. For example, a study including 300 people reported that 35.6% of families used traditional and complementary medicine methods for their children at least once (7). Again, when the studies conducted on children with chronic diseases were examined, it was determined that at least one traditional and complementary medicine method was used in approximately half of the children with asthma, in 68% of children with attention-deficit and hyperactivity disorder, in 65% of children with cancer, and in 56% of children with cerebral palsy (2-5). In a study conducted in our country, it was detected that approximately half of the children, who were aged between 1 and 16 years and diagnosed with asthma, used at least one

traditional and complementary medicine method (8). In our study, children without chronic diseases were included, and the rate of the use of traditional and complementary medicine, which was found to be 95.5%, was higher than that in the literature. We can attribute this situation to the broader handling of the methods that were evaluated as traditional and complementary medicine in our study. Traditional and complementary medical units, polyclinics, and centers have been recently established in many health institutions, and certified seminars, courses, congresses, symposia, and meetings have been started to be organized by the Ministry of Health. It is also observed that traditional and complementary medicine methods are recommended, encouraged, and supported in television programs and social media.

When the traditional and complementary medicine methods used in the children included in our study are examined, the use of herbal teas comes first with a rate of 68.5%. The other traditional and complementary medicine methods used were determined to be immune boosters (31.5%), prayers (21%), massage (15%), nutrition-diet (12%), acupuncture (4%), and music (2%). Of those who preferred traditional and complementary medicine methods, 43.98% stated that they used them for protective purposes, 44.5% for support and only 11.52% used them for therapeutic purposes. When studies on the use of traditional and complementary medicine methods in children were examined in the literature, it was observed that the used methods differed according to populations. For example, prayers are directly related to the ethnic and cultural structure of the society, and in our study, prayers were used approximately in one of every five children.

In the study conducted by Kaya et al. (10), it was found that quail eggs (44.3%) were used most frequently in children with asthma. Carob (41.9%), chestnut honey (29.9%), honey (29.3%), herbal mixture (18.6%), and mulberry molasses (15.6%) were determined as the other traditional and complementary medicine methods used. In a study conducted on children with hereditary metabolic diseases, mind-body medicine (28%) and biological-based therapy (21.4%) were reported as the two most commonly used traditional and complementary medicine methods (11). Furthermore, there are studies evaluating the effectiveness of acupuncture used due to cerebral palsy, asthma, enuresis nocturna, digestive system pathologies, amblyopia, and pain (12). Traditional and complementary medicine methods were evaluated in children with hepato-

gastrointestinal disease, and approximately 71% of them were determined to use herbal products (13).

As is seen, studies on the use of traditional and complementary medicine methods in the literature were mostly conducted in a specific pediatric patient group with chronic disease. The inclusion of mostly specific patient groups could be attributed to the fact that those with chronic diseases are in a search more, and their tendency to traditional and complementary medicine methods is higher. Despite the fact that very advanced treatment methods have been defined in recent years in modern medicine, reasons such as the failure to observe the treatment response expected or hoped by patients, not finding a method that will eliminate the disease completely, dissatisfaction with the medical health services, the inadequate relationship between the healthcare professional and the patient, the high demand for health services, long-term waiting, not allocating enough time to the patient, side effects of medical treatments, despair, and distrust in health institutions were found to be the parameters affecting the orientation of patients and their families toward traditional and complementary medicine methods (1,15).

Although being fewer in number, other studies that evaluate the use of complementary and alternative medicine in children were also published. The rate of the use of traditional and complementary medicine methods in 206 children evaluated by Tuncel et al. (22) was found to be 83%. Carrying an evil eye bead (45%) and reading prayers (35%) were found to be the most frequently used practices in order to protect from the evil eye. Belief-based practices were used in 73% of patients, and herbal practices were used in 57% of them. Akçay et al. (23) evaluated the use of traditional and complementary medicine in 125 children without chronic diseases. Herbal practices and religious beliefs were reported as the two most frequently used methods. In our study, the rate of the use of herbal products and religious beliefs was found to be high, and generally, our results are consistent with the literature. Although patients without chronic diseases were included, one of the limitations of our study is that the exact purpose of the use of traditional and complementary medicine (e.g. sleep, constipation, diarrhea, indigestion, etc) was not specified.

In modern medicine, “evidence-based medicine” is accepted as an undeniable fact (16). For this reason, the interest in complementary and traditional medicine methods and such widespread use of them have also brought about discussions, and it has been emphasized that more systematic, randomized controlled studies are

required on this subject (17). In this context, the reasons why people prefer traditional and complementary medicine methods and the sources from which these methods are learned are investigated. In our study, more than half of the patients (56%) had heard or learned these methods from family elders. Again, the rates of those who had learned them from the media and friends were found as 14% and 6.5%, respectively. The low rate of only 3.5% had learned traditional and complementary medicine methods from healthcare personnel. Therefore, we can conclude that healthcare personnel do not sufficiently prefer traditional and complementary medicine methods. Furthermore, in the studies in the literature, it was emphasized that most of the traditional and complementary medicine methods were initiated by parents, and even the families using these methods hid this from healthcare personnel. It is mentioned that most of the healthcare personnel are also not interested in traditional and complementary medicine and do not question this aspect of patients (1,18,19). According to a study conducted on children with cancer in Germany, 71% of patients learned and applied traditional and complementary medicine methods from individuals other than medical doctors (20). According to the results of our study, we believe that the rate of recommending traditional and complementary medicine by healthcare personnel will increase in the following years because the number of traditional and complementary medicine centers is increasing every day due to the health policy and incentives carried out at the moment in Turkey and the trend toward this subject is also gradually increasing. Moreover, according to the results of our study, it is noteworthy that the participants benefited significantly from traditional and complementary medicine methods, and this situation should be evaluated by medical doctors. Preferring traditional and complementary medicine methods unconsciously without a medical doctor's control, or using them together with chemotherapy or with other medical therapies is also crucial in terms of possible side effects, interactions, and complications (24). Such possible complications and interactions of these methods can only be checked if administered by a medical doctor. When it is considered that the majority of those using traditional and complementary medicine methods (72.25%) want to receive professional counseling according to the results of our study, we believe that this deficiency should be closed by trained healthcare professionals and that traditional and complementary medicine methods should be applied under control. The use of herbal products, in other words, phytotherapy is the most frequently used traditional and

complementary medicine method in our study, and it is also clear that more studies should be conducted in terms of the more controlled and safe use of this method and that the literature should also be supported in this regard.

Although the rates differ in the studies conducted, it has been shown that people from all segments of society prefer traditional and complementary medicine methods for themselves or their children (21). Similarly, in our study, people at different socioeconomic levels preferred traditional and complementary medicine methods. However, they were preferred mostly by those with medium income. Furthermore, the economic status of those who applied traditional and complementary medicine methods was found to be higher compared to those who did not apply traditional and complementary medicine methods. The economic status may have affected the provision of herbal products due to reasons such as their relatively high prices and not being covered by health insurance. When the educational levels in our sample group are examined, it is observed that people with different educational levels and different family structures prefer traditional and complementary medicine methods, although the rate of university and high school graduates is higher. It is noteworthy that the rate of university graduates is higher among those using traditional and complementary medicine in our study. This situation can be interpreted as that university graduates investigate more, they are more sensitive in terms of side effects that can be observed in modern medicine and methods that are natural and have no side effects, and they tend toward traditional and complementary medicine.

Although our study is not a prevalence study, our sample group is of an acceptable size. Furthermore, due to the location of our center in the largest city of our country, our hospital's being a tertiary healthcare institution with an education clinic and, thus, being a center to which patients from all segments of society are accepted in the region, we believe that our study will reflect the general population and will be a guide in traditional and complementary medicine practices in children. However, our results should be supported by multicenter studies that will be conducted on larger sample groups.

Ethics

Ethics Committee Approval: Ethics committee approval was obtained from the local ethics committee of our hospital (ethics committee approval no: 2019.01.2.02.106.rl.006).

Informed Consent: For the study, written and verbal consent was obtained from the families.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Concept: M.Ö., M.E., F.M., Design: M.E., Ö.B.G., Ö.Y., Data Collection or Processing: M.Ö., A.Ö., Analysis or Interpretation: M.Ö., A.Ö., Literature Search: Ö.B.G., F.M., Ö.Y., Writing: Ö.B.G., F.M., Ö.Y.

Conflict of Interest: No conflict of interest was declared by the authors.

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