



ARAŞTIRMA / RESEARCH

Prevalence and characteristics of traditional and complementary medicine utilization in an outpatient psychiatric population

Psikiyatri polikliniğine başvuran hastalarda geleneksel ve tamamlayıcı tıp uygulamalarının özellikleri ve yaygınlığı

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Abstract

Purpose: The aim of this study was to determine the variables in the use of traditional and complementary medicine for psychiatric complaints in and around the city of Adana, in Turkey's Eastern Mediterranean region.

Material and Methods: The study was performed with 1768 psychiatric outpatients of Çukurova, Kozan and Ceyhan State Hospitals in Adana who gave written approval and fitted the criteria. The structured clinical interview for DSM-5 was performed by a psychiatrist, and a questionnaire was given to gather socio-demographic information and clinical details on the use of traditional and complementary medicine.

Results: The proportion of participants using some kind of traditional and complementary medicine was found to be 39.7%. Those mostly used were, in order of frequency, prayer and consultation (16%), herbal products (10.5%), and nutritional supplements (7.1%). Regarding the perceived effectiveness of the use of traditional and complementary medicine, 68.6% of participants reported that they were partially or greatly effective. The use of traditional and complementary medicine was greater among the elderly, those living in rural areas, those with a low income, and those with a low education level.

Conclusion: The results of our study show that the use of traditional and complementary medicine among the mentally ill is widespread, and it is important that physicians and policy-makers should be aware this fact.

Key words: Traditional medicine, complementary medicine, psychiatric disorders.

Öz

Amaç: Bu çalışmanın amacı, Türkiye'nin Doğu Akdeniz Bölgesindeki Adana ili ve çevresinde, psikiyatrik yakınmalarda geleneksel ve tamamlayıcı tıp kullanımındaki değişkenleri belirlemektir.

Gereç ve Yöntem: Bu çalışma, Adana ilindeki Çukurova, Kozan ve Ceyhan Devlet Hastaneleri psikiyatri polikliniklerine ayaktan başvuran, katılma ölçütlerini karşılayan ve yazılı onam veren 1768 hasta ile yürütülmüştür. DSM-5 için yapılandırılmış klinik görüşme psikiyatrist tarafından yapılmıştır. Sosyodemografik bilgiler ile geleneksel ve tamamlayıcı tıp uygulamalarındaki klinik ayrıntıların toplanılması için bir anket formu verilmiştir.

Bulgular: Herhangi bir geleneksel ve tamamlayıcı tıp uygulamasına başvuran katılımcı oranı %39.7 idi. En çok kullanılanlar, sıklık sırasına göre; dua ve danışma (%16), bitkisel ürünler (%10.5) ve besin ekleriydi (%7.1). Geleneksel ve tamamlayıcı tıp uygulamasının algılanan etkinliği açısından bakıldığında, katılımcıların %68.6'sı kısmen ya da büyük oranda etkili bulduğunu bildirmiştir. Verilerimize göre yaşlılarda, kırsal kesimde yaşayanlarda, düşük gelir grubunda ve düşük eğitim düzeyinde geleneksel ve tamamlayıcı tıp kullanımı daha fazladır.

Sonuç: Çalışmamız, rusal hastalığı olanlarda geleneksel ve tamamlayıcı tıp kullanımının yaygın olduğunu göstermiştir. Hekimlerin ve politika belirleyicilerin bu durumun bilincinde olmaları önem taşımaktadır.

Anahtar kelimeler: Geleneksel tıp, tamamlayıcı tıp, psikiyatrik bozukluklar.

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INTRODUCTION

Complementary treatment methods are defined as practices which are accepted as part of traditional medicine but generally rejected by orthodox medicine. In a study conducted in the East Anatolian region of Turkey investigating the frequency and purpose of complementary treatments, it was found that 70% of patients chose this method with the aim of recovery¹. It has also been found that 70% of Americans choose complementary medicine practices to reduce pain and to feel better². Also in America, practices such as relaxation exercises, meditation and yoga are widespread among the aged population with symptoms of depression³. In a study by Kessler, it was reported that 9.4% of participants had anxiety disorder in the previous year, and 7.22% had depression; 56.7% of those suffering an anxiety disorder and 53.6% of those suffering depression had used complementary medicine methods⁴.

In Western countries, complementary medicine methods are used in chronic illnesses with the expectation of a positive result in alleviating the illness. For example, St. John's Wort is a complementary medicine product with an antidepressant effect which is commonly prescribed in Germany for this purpose⁵. It has been shown that in many cases where drug treatment is not preferred, the drug used is not well-tolerated, or these agents are ineffective, complementary treatments have been found to be effective in different extents⁶. S-Adenosylmethionine (SAME), omega-3 fatty acids and St. John's Wort are the preferred natural products for the treatment of depression. The most-used complementary medicine methods to treat sleep disturbances and memory problems are principally Kava, Melatonin, Ginkgo biloba, valerian (*Valeriana officinalis*), and passion flower. For attention deficit hyperactivity disorder, psychostimulants are the main drug treatment, and various non-drug complementary medicine methods are recommended alongside drug treatment or singly. According to current literature and scientific data, no complementary medicine method can alone replace pharmacotherapy in terms of effectiveness and reliability. However, essential fatty acids and exercise used with psychosocial interventions along with drug treatment have shown hope⁷. It has been observed that omega-3 fatty acids and amino acids used in addition to pharmacological treatment are effective in the treatment of

depressive period of bipolar disorder, but are insufficient in manic periods. Similarly, it has been found that herbal medicines are more effective to relieve symptoms of the depressive period. There are studies which show that magnesium used as a mineral supplement reduces the frequency of manic relapse and the severity of the manic symptoms^{8,9}.

The use of traditional and complementary medicine (TCM) is more widespread than generally thought, and this increases the significance of side-effect appearance and interactions related to drug and TCM concomitant use. However, TCM does not have an adequate place in medical training curriculum. As well as raising awareness about TCM among physicians, research on this topic can guide lawmakers in the task of determining prospective health policies. Studies have been carried out on the frequency of use of TCM and its relevant characteristics in various parts of the country. The southern region of Turkey has its own economic, social and cultural structure. In review of the relevant literature, no study was found to be conducted in and around Adana region on the use of TCM in psychiatric population. This study inquires the frequency of the use of complementary medicine methods by psychiatry patients and their perceived levels of effectiveness, and the ways to obtain these practices.

MATERIAL AND METHOD

Sampling

This cross-sectional study was conducted in the six-month period from June to November 2015 in the Psychiatric departments of Çukurova, Ceyhan and Kozan State Hospitals in Adana, Turkey. Adana is the sixth largest city in Turkey in terms of population. The province of Adana is in the south of the Anatolian peninsula, in the east of the Mediterranean region. In 2014, it had a population of 2 165 595. The provincial capital is situated 30 km inland from the Mediterranean Sea, on the both sides of Seyhan river. In the province, 87% of the population lives in urban areas and 13% lives in rural areas. Ceyhan is an administrative district of Adana province. It is 47 km from the city of Adana, and has the largest population of any district outside the provincial capital, with 159 454 inhabitants in 2014. Kozan has the second highest population among Adana districts, and is 69 km from the city of Adana. Its population was 128 893 in the 2014

census.¹⁰ Ethics committee approval for the study was obtained under No 2015/201 from the Ethics Committee for Non-Interventional Clinical Research of Adana Numune Teaching and Research Hospital.

A total of 1873 psychiatric outpatients who gave written approval, met the criteria for inclusion and were between the ages of 18 and 65 were accepted into the study. Later it was found that 105 patients who had been accepted did not fit the criteria; these were drop outs, and the study was completed with 1768 patients. Patients with a suspected diagnosis of active psychosis, dementia or intellectual disability were not accepted into the study as this would have compromised the reliability of the data. The aim of the study, the voluntary nature of participation and the confidentiality of all information explained to the participants when their approval was being obtained. For the relevant psychiatric diagnosis, a structured clinical interview for DSM-5 lasting 10-30 minutes was conducted with the participants. Information from relatives contributed to the history obtained from patients when necessary.

Data collection

The questionnaire used in the study was created with a review of the relevant literature. We conducted a pilot test on approximately 25 volunteers in order to determine the limitations of the questionnaire, and after making necessary revisions, this version of the questionnaire was used in the study. The questionnaire was applied to the patients who came to the clinic and gave their written approval in face-to-face interview by the psychiatrist treating them, and information was collected on the use of TCM after the first psychiatric diagnosis made and requested details are procured.

The questionnaire consisted of two sections. The first section covered patients' socio-demographic characteristics (age, gender, educational level and place of residence) and clinical characteristics (complaint when attending the psychiatric clinic, previous visits to the clinic, the duration of the psychiatric disorder, hospitalization, psychiatric disorder diagnosis, details of the use of TCM, reason for using TCM, how the decision to use TCM had

been made, and the perceived level of effectiveness after the use of TCM). The perceived level of effectiveness was determined at three levels. (I found it ineffective (1): There was no effect on any symptom which TCM should have affected. I found it partially effective (2): After the use of TCM there was insufficient relief from symptoms. I found it very effective (3): There was a clear relief of symptoms after using TCM.)**

Statistical analysis

Analysis was performed using the program SPSS 22.0. The psychiatric patients' socio-demographic and TCM utilization characteristics were determined by frequency analysis and descriptive analysis. Patients' TCM practice characteristics were compared with their sociodemographic data by chi square test and cross tabulation. Mean ages were calculated by ANOVA one-way variance analysis.

RESULTS

69.9% of the participants were female. 48.6% were in the medium or upper income group, and 51.4% were in the lower income group. 44.1% of the participants had no education or were educated to primary level, and 61.6% lived in rural areas. The proportion of those using some kind of TCM was found to be 39.7%. The most used types of TCM were, in order, prayer and consultation (16%), herbal products (10.5%), and nutritional supplements (7.1%).

The most frequent diagnosis among the participants was depression, with 534 people (30.2%). Others were, in order of frequency, anxiety disorders with 520 people (29.4%), schizophrenia spectrum disorders with 178 people (10.1%), somatic symptoms and related disorders with 121 people (6.8%), bipolar and related disorders with 98 people (5.5%), and obsessive compulsive and related disorders with 80 people (4.5%).

The three most commonly used herbal products were green tea (2.7%), chamomile (2.1%) and St. John's Wort (2.0%), and the three most commonly used nutritional supplements were omega-3 (3.1%), multivitamin (2.0%) and thiamine (1.1%). Numerical and percentage distributions are given in the graphs in the table below (Table 1).

Table-1. Utilized TCM methods and their respective ratios.

TCM Methods	n	%
Biologically based practise:	318	%45.29
Herbal Therapy	185	%26.35
Food Supplements	126	%17.94
Diet	5	%0.71
Ozone Therapy	2	%0.28
Mind-body medicine:	340	%48.43
Spiritual Healing	282	%40.17
Psychotherapy	26	%3.70
Ergotherapy	1	%0.14
Relaxation Exercise	16	%2.27
Yoga Exercise	2	%0.28
Sensory Art Therapy	13	%1.85
Manipulative and body-based practice:	44	%6.26
Massage Therapy	5	%0.71
Balneotherapy	13	%1.85
Leech Therapy	3	%0.42
Dry and Wet Cupping	16	%2.27
Prolotherapy	1	%0.14
Movement Therapy	6	%0.85
Total*	702	%100

* A total of 1768 patients participated in this study.

Table-2. TCM perceived effectiveness

TCM methods	TCM users (n)	Effectiveness level **
Biologically-based practises	318	2.08 ± 0.78
Manipulative and body-based practices	44	2.18 ± 0.72
Mind-body medicine	340	1.86 ± 0.74

Examining the levels of satisfaction with the use of TCM, 68.6% of the participants reported that they were partially or very satisfied. As shown in Figure 1, satisfaction levels fell with schizophrenia and bipolar disorder patients (41% and 39.6% respectively).

As can be seen from the Table 2, the groups were close to each other in perceived effectiveness, but biologically-based practices and manipulative body-based practices were seen as slightly more effective.

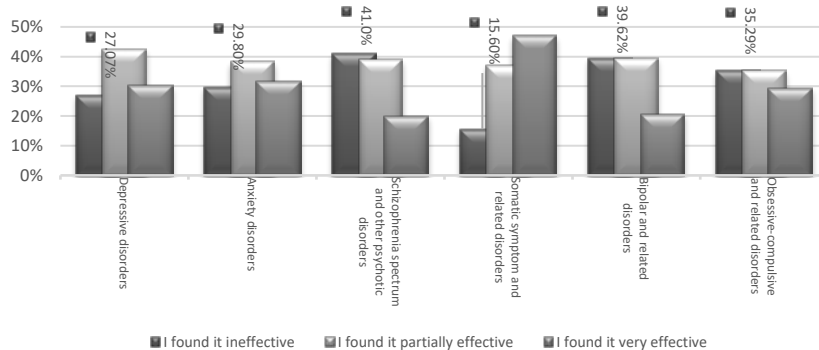


Figure 1. TCM utilization and their perceived effectiveness

In the results of variance analysis, $p < 0.001$ was found. In post hoc testing, the mean age of the group using only TCM was significantly higher than that of other groups. The patients' places of residence were divided into urban and rural areas, and it was found that the use of TCM by these two groups was significantly different ($p = 0.004$). In advanced analysis, it was established that the group using only TCM lived more in rural areas than the other three groups.

In terms of employment, two groups were formed – working and non-working. Comparing these two groups for use of TCM, $p < 0.001$ was found. Not taking any treatment was found to be more frequent in the working group than in the other groups. Because there were few people on a high income, patients on a high income were coupled with those

on a medium income, and two income groups were formed: high / medium and low-income groups. A significant difference was found between them in terms of TCM use ($p = 0.001$). The incomes of those who used only pharmacological treatment were significantly higher than the incomes of the other groups, and the incomes of those who used TCM+pharmacological treatment were found to be significantly lower than the incomes of the other groups. Comparative analysis was performed on educational variables by repeated chi-square testing between sub-groups. The educational level of the group which used both pharmacology and TCM was found to be lower than that of all the other groups. The education level of the group which used none of the treatments was found to be higher than that of all other groups. Statistical significance is thus constituted by means of those foregoing findings.

Table-3. TCM utilization and socio-demographic variables

	None (n= 556)		TCM only (n=509)		Medications +TCM(n=419)		Medications only (n=284)		Test	f/x	p
Age (mean± SD)	41.77±15.2		37.04±14.4		40.29±13.5		39.40±13.9		ANOVA	7.192	<0.001
Gender											
Male	194	33.2	170	29.1	134	22.9	87	14.9	X ^{2a}	1.844	0.605
Female	362	30.6	339	28.7	285	24.1	197	16.7			
Education											
Illiterate/primary	226	29.0	119	15.3	214	27.5	220	28.2	X ²	11.672	0.009
Junior high	81	34.3	36	15.3	58	24.6	61	25.8	X ²	1.734	0.629
High school	160	35.1	74	16.2	96	21.1	126	27.6	X ²	4.701	0.195
University	89	30.0	55	18.5	51	17.2	102	34.3	X ²	11.831	0.008
Residency											
Rural	59	25.0	55	23.3	60	25.4	62	26.3	X ²	31.657	0.004
Urban	497	32.4	229	14.9	359	23.4	447	29.2			
Employment											
Employed	223	39.5	88	15.6	98	17.3	156	27.6	X ²	13.434	<0.001
Unemployed	333	27.7	196	16.3	321	26.7	353	29.3			
Income											
High, Middle	272	31.6	132	15.3	166	19.3	290	33.7	X ²	41.272	<0.001
Low	284	31.3	152	16.7	253	27.9	219	24.1			

DISCUSSION

In a community-based study in Turkey on the use of TCM, it was found that 58% of participants had recourse to TCM, while in another study 22.2% of psychiatric outpatients used them^{11, 12}. Research in other countries on mental disorders and TCM, rates of use were given as 34-88%^{13,14,15}. In the United States, a community-based study was conducted on TCM use at three different time points between 2002 and 2012. In this study, it was found that the

rate of TCM use in the previous 12 months was 32.3% in 2002, and 33.2% in 2012¹⁷. In our study, it was found that 39.7% of participants applied TCM methods. The level of use of TCM in our study conforms to that of previous studies.

The most used type of TCM in our study was prayer and consultation (16%). This result is in line with some previous studies,^{17,18,19} but there are also studies reporting opposite results, and it conflicts with studies in this country conducted on the general population and on psychiatric outpatients

which have found that herbal products are the most used method¹. In our study, the group using prayer and consultation were mostly patients with schizophrenia spectrum disorders and bipolar disorders. Because of the influence of religious and cultural factors, the symptoms such as hallucinations, disorganized behavior and delirium are perceived as being problems related to religion such as elf or the evil eye. As a result, people go to religious “hodja” to get advice and to have charms written¹². Also, in the Çukurova area there are religious organizations called “ocak” that people go to for this purpose. “Ocak” is defined in the dictionary as an organization which is believed to help cure various illnesses. People seek remedies in these kind of places²⁰. The second most frequently used TCM method was herbal products. There may be many reasons for this outcome. The Çukurova area has a rich flora, and the use of plant-based treatments dates back to the first-century doctor Dioscorides and his well-known Herbal, or *Materia Medica*²¹.

People’s knowledge of TCM methods largely derives from acquaintances who have used them or from the mass media. In our study, advice to use TCM methods largely came from the doctor. In various previous studies in this country, advice on using TCM methods came mostly (26.5%) from friends and family¹. In another study also conducted in this country it was found that even more than half of TCM use was suggested by friends and family²². In a study by Ulusoy et al., a large proportion of TCM users were prompted by relatives or the mass media, while 13.6% used them following the recommendation of a doctor²³. The use of TCM on the advice of a doctor was found to be higher in our study than previously conducted studies. This result may be explained by the recent increase in interest in TCM methods by doctors. A rise in publications on the effectiveness of TCM methods and people’s interest in TCM methods brought about by the media may have resulted in a trend towards the use of these methods. In our study the use of TCM by schizophrenia spectrum patients was distinctly higher than that of other disorders (59% vs. 39.9%). This result can be attributed to the poor prognosis and chronic course of schizophrenia in comparison with other disorders. A correlation was found between participants’ socio-demographic characteristics and their TCM use. Age, place of residence, education level and income level all affected the use of TCM. TCM use increased in the

elderly, those living in rural areas, those on a low income, and those with a low level of education. This conflicts with studies in the West, in which TCM use was greater in those with a higher level of income and education^{24,25}. On the other hand, results similar to ours were found in a study in cancer patients by Ceylan et al²⁶. Severe mental illnesses such as schizophrenia are associated with low income and education levels²⁷. The high level of use of TCM by schizophrenia spectrum disorder patients in our study may also be explained by socio-demographic differences. The group which perceived TCM use as partially or very effective amounted to 68.6% of participants. This result is in accordance with previous studies¹ In severe mental disorders like schizophrenia and bipolar disorder, perceived effectiveness was found to be less, and 41% of schizophrenia spectrum disorder patients and 39.6% of bipolar disorder patients found TCM to be ineffective. Given the chronic course and poor prognosis of the illness, it is not surprising that the schizophrenia group should have found the TCM method to be ineffective.

The participants in our study found biologically-based practices and manipulative body-based practices to be more effective. A study by Bahçeci et al. revealed at similar findings¹². Because our study was conducted in only one provincial capital and two districts and it only involved psychiatric outpatients, it would be difficult to generalize the results to the whole psychiatric population. Duration and frequency of TCM use were not investigated, and for this reason the factors affected by regular and intermittent TCM use are unknown. Nevertheless, this is one of only a few studies in this country focusing on the use of TCM by patients having mental disorders. We believe the large size of the sample warrants an added value to this study.

The use of TCM by psychiatric patients is widespread and an even better prospect for TCM is in the horizon. This can result in the simultaneous use of pharmacological drugs and TCM, which brings with it the problem of drug interaction. It is important for physicians and policy makers to increase their awareness of the use of TCM. There is a need for further studies to investigate particularly the factors affecting TCM use and drug interactions.

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