

Epidemiological Factors in Patients with Dermatologic Conditions Referring to Clinic of Traditional Persian Medicine, Shiraz, Southern Iran during 2018: A Cross- Sectional Study

Mohammad Mahdi Parvizi¹, Nazanin Fatehi¹, Amir Mohammad Jaladat¹, Zahra Gholampour¹, Reza Shahriarirad², and Amirhossein Erfani²

¹Shiraz University of Medical Sciences

²Affiliation not available

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Abstract

Introduction: Many patients with chronic diseases often use the traditional medicine approach in addition to conventional medicine. The aim of this study was to evaluate the epidemiological factors of patients with dermatological conditions referring to traditional Persian Medicine (TPM) clinic. **Materials and Methods:** In this cross-sectional study, we reviewed all the patients' medical documents with dermatological conditions referred to the TPM clinic at Shiraz, Southern Iran in 2018. Then, the epidemiological factors of the patients were recorded to a researcher-made data collection form. SPSS software version 22 was conducted to data analysis. **Results:** Overall, 631 patients consist of 151 (23.9%) male individuals and 580 (76.1%) female individuals were enrolled to the study. Most of the patients were aged between 31 and 40 years, and 347 (55%) patients were married, and most of them were housewives. The frequency of patients in spring was higher than other seasons. Furthermore, the most of the patients were university educated. Acne, eczema and hair loss were the three most complaints of the patients referring to the traditional medicine clinic. 301(47.7%) patients reported gastrointestinal problems as another complaint concomitant with their skin problems. **Conclusion:** It seems that women with skin problems, including acne, eczema, and hair loss, were more likely to refer to the TPM clinic. Therefore, development of TPM clinics in dermatology field as a scientific and academic approach can be effective in the treatment of patients with dermatological condition accompanied by traditional medicine.

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Short running title: Dermatologic ptients referring to TPM clinics

Mohammad Mahdi Parvizi¹, Nazanin Fatehi², Amir Mohammad Jaladat³, Zahra Gholampour⁴, Reza Shahriarirad^{2,5}, Amirhossein Erfani^{2,5}

¹ Molecular Dermatology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran

² Student Research Committee, Shiraz University of Medical Sciences, Shiraz, Iran

³ Department of Traditional Persian Medicine, Shiraz University of Medical Sciences, Shiraz, Iran.

⁴ Hakim Emad-al-Din Traditional Persian Medicine Clinic, Shiraz University of Medical Sciences, Shiraz, Iran.

⁵ Thoracic and Vascular Surgery Research Center, Shiraz University of Medical Sciences, Shiraz, Iran

The corresponding authors of this manuscript is:

Mohammad Mahdi Parvizi, MD, PHD. Dermatology Research Center, Shiraz University of Medical Sciences, Shahid Faghihi Hospital, Shiraz, Iran. ORCID ID: *0000-0003-1856-945X* , Telefax: +98-7132319049, Tel: +98-7132315592, Cell phone: 00989173237031, Email: mmparvizi@gmail.com

Amir Mohammad Jaladat: Department of Traditional Persian Medicine, Shiraz University of Medical Sciences, Shiraz, Iran. ORCID ID: *0000-0003-3158-1250*, Tel: +98-7132349983, Cell phone: 00989173015789, email: drjaladat@gmail.com

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Results: Overall, 631 patients consist of 151 (23.9%) male individuals and 580 (76.1%) female individuals were enrolled to the study. Most of the patients were aged between 31 and 40 years, and 347 (55%) patients were married, and most of them were housewives. The frequency of patients in spring was higher than other seasons. Furthermore, the most of the patients were university educated. Acne, eczema and hair loss were the three most complaints of the patients referring to the traditional medicine clinic. 301(47.7%) patients reported gastrointestinal problems as another complaint concomitant with their skin problems.

Conclusion:

It seems that women with skin problems, including acne, eczema, and hair loss, were more likely to refer to the TPM clinic. Therefore, development of TPM clinics in dermatology field as a scientific and academic approach can be effective in the treatment of patients with dermatological condition accompanied by traditional medicine.

Keyword: Skin diseases, Epidemiological factors, Traditional medicine, Iran

What is already known about this topic? According to the literature, the most of patients suffering from chronic diseases, especially patients with chronic dermatologic conditions, use herbal, natural or complementary remedies, even without a doctor's or complementary and traditional medicine practitioner's prescription.

What does this article add? This article reveals that many patients with chronic dermatologic conditions, who were dissatisfied with the results of treatment with conventional medicine, referred to complementary and traditional medicine physicians in an academic tertiary out-patient clinic of this field in Iran to receive prescription for their problems and more than 50% of them have experienced moderate to good therapeutic responses.

Introduction

Dermatology conditions are one of the most common human diseases, which affect 30%- 70% of people regardless with individual cultures and ages The International Classification of Diseases lists over 1,000 dermatologic or skin-related diseases in 10 categories. Internationally, skin diseases are the fourth leading cause of non-fatal diseases. Despite this abundance, skin diseases continue to receive less attention in national and global health debates (1).

Patients with dermatologic problems often experience emotional problems, such a way that the prevalence of psychiatric disorders among dermatologic patients was reported between 30% and 60% (2-4). Chronic skin diseases are considered as long-standing diseases that has had an increasing rate in recent years especially in developed countries. But the mortality rate of dermatology diseases has been decreased because of presenting new medication and better managment the disease by general physicians and dermatologists. In this regard, advances in the treatment of chronic skin diseases have improved the patients' quality of life(5) .

Several skin diseases are associated with pain and discomfort, physical disabilities and psychological disorders (6, 7). In some conditions, complications of skin diseases usually remain permanently or temporarily. Therefore, these complications can affect the patients' professional, psychological and physical well-being (8). On the other hand, there is some evidence that suggests the quality of life in patients with dermatological is equal to or worse than the quality of life in patients with cancer or heart diseases (9).

Tendency to use folklore, complementary and integrative medicine is prominent among the Iranian population, especially in patients (10-12). In this regard, many people with chronic disorders, such as several dermatological conditions, have resorted to the use of integrative and complementary medicine, natural and herbal remedies, acupressure, acupuncture, exercise, psychological and nutritional approaches to control the symptoms of the diseases (13-15).

To the best of our knowledge, despite the high number of patients with dermatologic conditions who referred to TPM clinics, the epidemiological studies were not conducted in these patients in Iranian population. In this survey, we decided to assess the epidemiological charastristics in patients with any dermatological conditions referring to TPM clinic affiliated to Shiraz University of Medical Sciences, Shiraz, Southern Iran, during 2018.

Materials and methods

Study design and population:

This cross-sectional descriptive study, was conducted in all patients with dermatologic conditions referring to the *Hakin Emad-al-Din Shirazi* clinics, the central TPM clinic affiliated to Shiraz University of Medical Sciences, Shiraz, Iran during 2018.

Ethics statements:

Ethics Committee of Shiraz Medical School approved the protocol of this study (Code: IR.SUMS.MED.REC.1398.189). The data collection process was completely confidential and an individual code was assigned to identification of each patient.

Data collection:

For data collection, the researchers recorded the demographical charastristics of the enrolled patients, including age, sex, marital status, educational level, occupation, season of the visit, nationality, and as well as dermatologic conditions in a researcher-made data collection form. For assessment the patients' response to the treatment we used Patient Global Impression Scale of Improvement (PGI-I). Furthermore, the researchers called the patients to obtain any missing information.

Statistical analysis:

SPSS software version 22 (IBM Corporation, Armonk, NY) was used to analyze the data. The results of the study were reported as “mean \pm standard deviation” for quantitative variables and as “number (percent)” for qualitative ones. The Chi-square test was used to determine associations between the variables. The significance level of p-value was considered 0.05 or less.

Results:

Overall, 631 patients with dermatological conditions were enrolled to the study. The patients aged from 6 months to 91 years (mean= 63.45, SD= 32.14) and the patients’ disease duration ranged from 8 months to 40 years (mean= 6.21, SD= 5.25). All of these patients with dermatological complaints were visited and diagnosed by one or more dermatologist before been referred to the TPM clinic. Table 1 demonstrates the epidemiological characteristics of the patients with dermatological conditions referred to TPM clinic were presented in Table 1.

The majority of skin patients referred to the TPM clinic (99.5%) were Iranian. The place of residence of the majority of skin patients referred to the TPM (77.8%) was Shiraz. The majority of patients (19.9%) referred to the traditional medicine clinic in May.

Table 2 demonstrates the primary dermatological complaints of patients referring to TPM clinic. The majority of primary skin complaints of the patients (27.6%) consisted of acne and the least for hirsutism and premature graying of hair (0.3%).

Based on our study, 148 out of 631 patients(23.5%) suffered from only dermatological complaints. However, 163 patients (25.8%) suffered from another comorbid complaint, in addition to their skin conditions and 320 patients (50.7%) suffered from two comorbid problems. In this setting, most patients (47.7%) had gastrointestinal problems in addition to their initial skin complaints. Table 2 describes the comorbidities documented in the patients in our study.

In the follow-up course of the patients under treatment with TPM, we could follow up 271 out of 631 patients. The result of following up these patients demonstrated that 124 (45.8%) of them had reported less than 30% improvement, 29 (10.7%) had announced 30%-60% improvement and 118 (43.5%) had experienced a recovery of more than 60%. In addition, there were no associations between the rate of improvement and the patients’ sex ($p=0.430$), level of education ($p=0.853$), place of residence ($p=0.336$), and the numbers of visiting the TPM physicians.

Discussion

Most of patients referring to TPM clinics were suffering from chronic diseases, which had not received appropriate treatment from modern medicine(16). The literature revealed that the most patients who referred to TPM clinics had selected traditional treatment as the end step of their therapeutic process and they hope that they would have had an acceptable therapeutic response to improve the quality of life (17, 18).

The findings of the present study showed that the majority of patients referred to TPM clinic were married, because it seems that married people tend to seek treatment and follow-up for their skin condition due to their appearance and cosmetic factors. Also, the education level of the most of the patients with dermatologic problems referring to the TPM clinic was a bachelor’s degree. This finding demonstrated that people with a higher degree of education probably had more tendency to try TPM remedies for treatment of their disease which also confirms the result of the study done by Dastgheib *et al.* (19, 20). The study of Hunt *et al.* showed that the people who were university educated were are more inclined to use complementary medicine(21). Moreover, Frass *et al.* showed that the more education was one of the important predictive factors for using complementary and alternative medicine, such a way that the people with higher education used complementay and alternative medicine 1.2 times more than other population (22). These results were in-line with the results of our study.

The results of the present study indicated that the most of the patients were housewives and the least were retired ones. This may be because of that the housewives often have more free time to visit TPM clinics;

however, the reason for lack of follow up for skin lesions among the retirees may be because of the lower life expectancy and a lack of attention to their appearance. Kaushal *et al.* demonstrated that the housewives in India used allopathic medicines more than other drugs (23). This result was similar to the result of our study.

The most frequencies of patients referred to TPM clinics in our study were in spring and autumn. This may be resulted from increasing the incidence rate of many skin disorders or aggravation of skin disorders such as atopic dermatitis, eczematous disorders and other inflammatory skin conditions in spring and autumn. In addition, seasonal allergies and skin lesions are more common in these both seasons because of distribution of the pollens in the air (24, 25). Furthermore, changing in seasonal temperature and humidity of the climate of maybe the other contributing factors to differences distribution of patients to visit the physician because of dermatology conditions.

According to our study, acne was the most dermatologic conditions that the patients had explained in their medical chief complaints. Acne is an inflammatory disease with polymorphic lesions including papules, pustules, nodules and cysts that affect the face, chest, and back of the trunk commonly seen in adolescents. According to the previous studies, it is estimated that 9.4% of the global population are affected by acne, making it the eighth-most prevalent disease worldwide. This condition may affect the psychological and social aspects of patients with acne (26). Several studies revealed that many of dermatologic conditions are multifactorial disorders. For example, seborrheic dermatitis is significantly associated with the disappearance of normal gastrointestinal flora (27). Moreover, some patients suffering from acne rosacea were found to be infected by *Helicobacter pylori* (28). In addition, while the exact pathogenesis of sebaceous gland diseases is unknown, some reports suggest that gastrointestinal disorders increase sebaceous gland secretions (29). Our findings showed that the most patients were also suffering from a gastrointestinal problem. Moreover, sleep disturbance, neurological and psychiatric problems were the other common comorbid complaints in patients in our study. In this regard, previous studies confirmed that the dermatological conditions were related to gastrointestinal problems, sleep disturbance, and psychiatric problems (7, 30-33).

There were a few studies around using complementary and alternative medicine in patients with dermatologic conditions. In a study done by Arye *et al.*, 77 patients who referred to an outpatient dermatology clinic were evaluated in the aspect of using complementary and traditional medicine in treating psoriasis. 62% used complementary medicine of which 58% of them receive such treatments from an expert in traditional medicine. Also, according to the study, the use of complementary medicine (mostly traditional medicine) among Arabs was significantly higher compared to Jews. The reason these patients used complementary medicine was they believed that it can increase their quality of life. Some also believed that the side effects and toxicity of herbal remedies were less, and even the usage of complementary medicine reduced their stress (34). All of the patients in our study were visited by one or more dermatologist but they did not have the acceptable therapeutic responses to conventional medicine, so they decided to choose TPM as their last chance. Therefore, since more than 50% of the patients in our study had moderate and good therapeutic response from TPM, it can be very promising, and it can open wide avenues for further studies.

There were some limitations in our study. First, this was a retrospective study, so for evaluating the exact effects of using TPM in patients with dermatologic conditions, we suggest that the cohort studies should be conducted and the patients are followed up, regularly. Next, some of our patients' document were not complete, so we were faced with few missing data on some issues, such as the therapeutic response of the patients. Therefore, designing powerful electronic systems can improve studies in this area. Finally, our project was a single-center study, so multi-center studies are recommended for future studies.

Conclusion:

The findings of the present study showed that a large number of patients with chronic dermatologic condition referred to TPM clinics and acceptable therapeutic responses were seen among some of them. Therefore, development of TPM clinics in dermatology field as a scientific and academic approach can be effective in the treatment of the patients with dermatologic conditions accompanied by traditional medicine. Furthermore,

more longitudinal observational studies are recommended to determinate the exact efficacy of treatment with traditional remedies in patients who referred to TPM clinics

Conflict of interest:

The authors declare that there are no conflicts of interest.

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Title of the tables:

Table 1- Epidemiological characteristics of patients with dermatological condition referring to traditional Persian medicine clinic affiliated to Shiaz University of Medical Sciences.

Table 2- Primary dermatological complaints and comorbid diseases of patients referring to Iranian traditional medicine clinic

Table 1- Epidemiological characteristics of patients with dermatological condition referring to traditional Persian medicine clinic affiliated to Shiaz University of Medical Sciences.

	Frequency (N=361)	Percentage
Age Group		
Less than 20	126	20 %
21 to 30 years	173	27.4%
31 to 40 years	190	30.1%
41 to 50 years	72	11.4%
51 to 60 years	39	6.1%
Above 60 years	31	5%
Sex		
Male individuals	151	23.9%
Female individuals	480	76.1%
Marital Status		
Single	284	45%
Married	347	55%
Educational Stage		
Undergraduate education	146	23.1%
Diploma	107	16.9%
Post-diploma	65	10.4%
Bachelor's degree	214	34.2%
Master's degree and higher	97	15.4%
Occupation		
Employees	151	23.9%
Freelance	56	8.9%
Students	166	26.3%
Housekeeper	187	29.6%
Retiress	18	2.9%
Unemployed	53	8.4%
Month of Visit		
Spring	182	28.8%
Summer	135	21.4%
Autumn	163	25.8%
Winter	151	23.9%
Nationality		
Iranian	626	99.5%
Foreign	3	0.5%
Residence		
Shiraz, Capital of Fars province	491	77.8%
Other Cities in Fars province	93	14.7%
Other provinces	45	7.1%
Foreign countries	2	0.3%
Type of Referral		
Friends and family	241	88.9%

	Frequency (N=361)	Percentage
Specialist physician	2	0.7%
Social media	12	4.4%
Own decision	4	1.5%
Unknown	12	4.4%

Table 2- Primary dermatological complaints and comorbid diseases of patients referring to Iranian traditional medicine clinic

	Frequency (N=361)	Percent (%)
Primary Skin Complaints		
Acne	174	27.6 %
Eczema and Dry skin	129	20.4%
Pruritis	55	8.7%
Urticaria	31	5.1%
Melasma, Vitiligo, Freckles or other Pigment disorders	85	13.5%
Hair Loss	86	13.6%
Hirsutism	2	0.3%
Oral Aphthous	12	1.9%
Psoriasis	49	7.8%
Premature Graying of hair	2	0.3%
Nail Disorders	5	0.8%
Comorbid problems		
Gastrointestinal	301	47.7%
Gynecological	85	13.5%
Respiratory	85	13.5%
Neurological and psychiatrics	174	27.6%
Sleep disorders	105	16.6%
Other skin problems (which found in history taking)	257	40.7%