

Research Paper: Alternative Medicine' Complaints Lodged to the Tehran Forensic Medicine Organization From 2011 to 2017



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ABSTRACT

Background: Complementary and alternative medicine is a non-conventional therapy and includes a wide range of medical treatments in different countries. This study was done to evaluate alternative medicine complaints lodged to the Tehran Forensic Medicine Organization from 2011-2017.

Methods: In this cross-sectional study, all documented complaints of complementary medicine lodged to the Tehran Forensic Medicine Organization from 2011-2017 were reviewed and assessed with retrospective follow-up. The inclusion criterion was complaints from complementary and alternative medicine, and the exclusion criterion was incomplete data. The study data included patients' demographic data, the therapist, the specialty of the therapist, type of disease, treatment method, adverse effects, the initial and final decision by the commission, and the amount of medical error. This information was extracted from the existing documents and recoded in the checklists.

Results: Medical errors were found in 53.4% of the complaints examined. The most common cause of complaint (63%) was the adverse effects, of which the most common ones were phytotherapy (45.2%) and cupping (Hijama) (20.5%). The error was significantly different between physician and non-physician healers ($P=0.001$).

Conclusion: Based on this study, among the alternative medicine complaints lodged to the Tehran Forensic Medicine Organization from 2011-2017, the adverse effects were the main problem of complementary therapies confirmed in more than half of the complaints.

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1. Introduction

Complementary or alternative medicine is a non-conventional medical therapeutic modality. This medicine includes a variety of treatments, including aromatherapy, phototherapy, acupuncture, and traditional medicine all around the world. According to some Iranian studies, alternative medicine is used by up to 50% of the patients [1, 2]. The World Health Organization has approved traditional and complementary medicine with different principles and has encouraged the use of this method in classic aspects. Unfortunately, there are multiple ethical and legal debates in this regard, especially when non-specialist subjects lack proper instructions for the assessment of traditional and complementary medicine [3, 4].

The medical forensic organization should develop assessment tools for legal agencies to determine the medical errors and faults and their punishment in different medical fields [5]. The assessment in this era should be done in specialized commissions. Then the relevant reports about related complaints in this field would lead to the preparation of some guidelines and protocols [6]. This study was carried out to determine the alternative medicine charges reported to the Tehran Forensic Medicine Organization from 2011-2017.

2. Materials and Methods

In this cross-sectional study, all documented complaints of complementary and alternative medicine lodged to the Tehran Forensic Medicine Organization from 2011-2017 were examined and assessed with retrospective follow-up. The inclusion criterion was complaints from complemen-

tary and alternative medicine, and the exclusion criterion was incomplete data. The study data included patients' demographic data, the therapist, the specialty of the therapist, type of disease, treatment method, adverse effects, the commission's initial and final decisions, and the amount of medical error. This information was extracted from the existing documents and recoded in the checklists.

The costs, according to USA dollars, were estimated, and changes were made according to Iran Central Bank declaims in each year. The obtained data were analyzed in SPSS V. 21.0, and the significance level was considered 0.05.

3. Results

From 2011-2017, about 73 complaints were lodged from complementary medicine. The complainants were 50.7% male and 49.3%, female with a Mean±SD age of 39.3±12.5 years. The complaints were usually (63%) for adverse effects. In more than half of the cases (53.4%), the error was confirmed. The therapists were male and female in 87.7% and 12.3%, respectively, with a Mean±SD age of 44±13 years. Table 1 presents their demographic data. The most common age group was 40-60 years. Type of field was general and specialist physicians (except traditional specialist) (35.61%) and then the ittars (34.2%) and finally the traditional healers (19.17%), including homeotherapist, massager, beekeeper, etc. (Figure 1).

The involved diseases and problems were mostly musculoskeletal, obesity, and internal medicine, with rates of 31.5%, 16.4%, and 13.7%, respectively (Figure 2). The other less common diseases included weakness, addiction, varicose veins, and peripheral nervous system disorders. Herbal medicine and cupping (Hijama) were the most common treatments with rates of 45.2% and 20.5%, respectively (Figure 3).

Table 1. Frequency distribution of age among patients and healer subjects

Age (y)	No. (%)	
	Patients	Therapists
<12	5 (6.8)	0 (0)
12-20	6 (8.2)	0 (0)
20-40	27 (37)	22 (30.1)
40-60	30 (41.1)	46 (63)
>60	5 (6.8)	5 (6.8)
Total	73 (100)	73 (100)

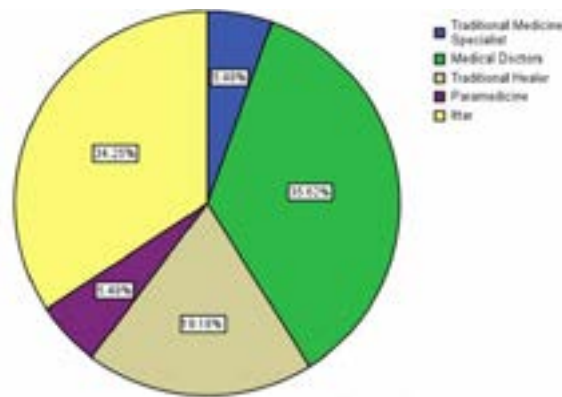


Figure 1. Field of activity among healers

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Working years were averagely 10.4 ± 6.7 years. Cause of complaint differed according to the age of therapists ($P < 0.05$), and in lower ages, higher adverse effects were seen. Also, working years were related to error establishment ($P < 0.05$). The error was approved in 53.4%, and total punishment costs were \$3180000 ranging from \$55.5 to \$444.5 in different documents. When the error of the physicians and legal punishments for non-physicians were considered as the outcome, there was a statistically significant association between the career of the healers and being punished with also substantial effects on the money considered as parallel as the cost ($P < 0.05$).

(20.5%). The error significantly differed between physician and non-physician healers. The error may be a lack of caution or medical error and is due to mistakes in programming and performance, leading to unwanted outcomes [7, 8]. The legal issues in different countries vary, and some normal cases may be considered as a medical error in other countries [9, 10]. This matter would lead to some shortcomings in comparisons between different settings [11]. The factor analysis for errors would help determine a definite cause of errors and faults and to program better and reduce the rate of errors, including human, technical, and organizational ones [12-14].

4. Discussion

The medical error was confirmed in 53.4% of the complaints examined. The most common cause of complaint (63%) was the adverse effects, of which the most common ones were phytotherapy (45.2%) and then cupping

In a local study, 60% of subjects reported in Tehran use at least one complementary and traditional method [1]. Also, 53.3% of general physicians have used these methods during their previous year of practice [2]. The use of complementary medicine for post-trauma medications is reported in 4.1% of patients [15]. Mahmoudian et al. assessed 256 cases attending a center for Iranian traditional medicine in Isfahan City, Iran, with a mean age of 38 years, and nearly one-third of cases were female [5].

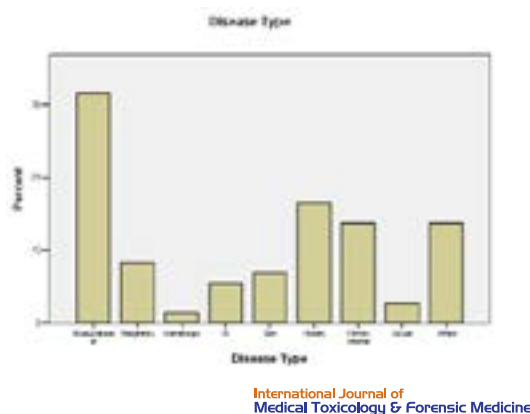


Figure 2. Type of disease among patients

Others: The others included weakness, addiction, varicose veins, and peripheral nervous system disorders.

Type of malignancy: Breast and lung cancer were the most frequent, each 33.3%, followed by uterus and blood cancer.

Chronic internal disease: Diabetes mellitus, Hypertension, etc.

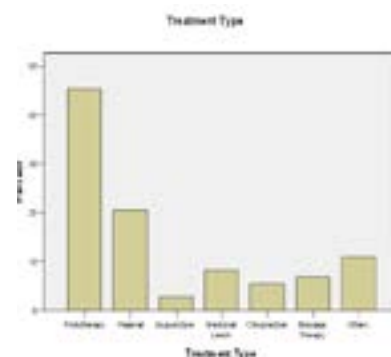


Figure 3. Treatment type

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In Tehran, another study reported the mean age of 32 years and 57% females for users of complementary medicine [5]. Among patients attending as the outpatients to general practitioners, the mean age of clients was 40 years, and 55% were female [2]. The mean age in our study was 39 years with the same male and female percentage. As seen, the mean age in our study was similar to other studies. In a study among Asian Americans, the majority of them were using complementary medicine for low back pain [16]. Also, Korean traditional medicine is frequently used in Korea [17]. In a study in Isfahan, Iran, the most common cause of using traditional medicine was low back pain, and most cure rates (50%) were for weight reduction. In a study in three Iranian cities, the most common cause of seeking traditional medicine was musculoskeletal problems [2]. It was also the most common cause in Tehran, and the next common cause was mental problems [1]. In our study, musculoskeletal complaints were the most common ones.

Incidental contamination of herbal medications should be considered. Contamination with chemical drugs such as corticosteroids, heavy metals, pesticides, or microorganisms has been reported in China and India [18, 19]. In our study, it was established that some herbal drugs were intentionally contaminated with corticosteroids and substances such as opium and stimulants leading to life-threatening adverse effects. Those complications included femoral head avascular necrosis (two cases due to weight reduction drugs mixed with corticosteroids) and death (in one case due to methadone addition for pain reduction). Also, there were two asymptomatic cases with amphetamines contamination of herbal medication for weight reduction. In a study about problems of traditional and complementary medicine, some debates were considered, including lack of scientific evidence about the efficacy of existing agents, no instructions and guideline for use, lack of care centers and also legal associations for complaints, and unrecognized status of the therapists [3].

For this reason, the complainers in our study ranged from the traditional healers to specialist physicians. This matter shows the need to define rules for presenting centers of traditional medicine with sufficient training to be accepted in societies. This matter would result in a lower rate of complaints from patients about traditional medicine. Also, our study demonstrated that being a physician would result significantly differed fault, or on the other word, punishment either legal or non-legal one for the healers and for this matter, further acknowledgments among non-physicians should be considered as a preventive approach to reduce the burden of problems. Besides,

additional focus in public media to use traditional medicine would result in a significant reduction in the problem.

This study showed some differences with Ghaed et al. results that reported the most common reason for the use of complementary alternative medicine was the common cold in one-third of cases [20]. Similarly, Sheikhrabari et al. showed that the most common therapeutic options were medicinal plants used by 85% of the participants [21]. Dasgheib et al. reported that patients with alopecia and acne significantly utilized more alternative and complementary medicine [22]. But our study showed different patterns, and it may be due to cultural differences. Among the participants in the study by Abolhassani et al., 98% had previous conventional medicine history due to some chronic diseases [23]. But this rate was lower in our study. Some differences between studies are due to various methods used and different studied disorders as well as the knowledge level in this era among Iranian patients [24-36].

5. Conclusion

Based on this study, the adverse effects were the main problem of complementary and alternative therapies that were confirmed in more than half of the complaints. The proof of malpractice had a significant relationship with the age and work experience of the therapists and the work field, including physicians or non-physicians. However, further studies with multi-center sampling and larger sample sizes are required to gain more evidence-based information and systematic programming to reduce complaints and problems in traditional medicine therapy.

Ethical Considerations

Compliance with ethical guidelines

Patients' personal information will be confidential in this research. The ethical code for this was IR.SBMU.MSP.REC.1396.117 from Shahid Beheshti University of Medical Sciences.

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Author's contributions

Study design and writing article: Mohamad ali Emam Hadi, Baharak Sabet Divshaly; Supervision: Mohamad

ali Emam Hadi, Farahnaz Azimy; Implementation, data analysis: Baharak Sabet Divshaly, Babak Sabet Divshaly.

Conflict of interest

The authors declared no conflict of interest.

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