

ORIGINAL ARTICLE

Complementary alternative medicine in rheumatologic diseases; data from outpatient clinics in Yazd, Iran

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ABSTRACT

Introduction: Complementary and alternative medicine (CAM) is a treatment modality that is not part of conventional and standard medical treatment and are used along with the conventional therapies. Nowadays, complementary alternative medicine is used by many patients around the world. This study discussed the prevalence of different types of complementary and alternative medicine used among patients attending the rheumatology clinics in Yazd.

Materials and Methods: 350 patients who referred to rheumatology clinics in Yazd, Iran, were included in a cross sectional study over 17 weeks. The patients were at least 20 years old with known rheumatology disorder lasting at least for three months.

Results: Of the total 350 patients, 71 (20.3%) were male and 279 (79.7%) were female. 235 (67.1%) patients used CAM. The mean age of patients who used CAM was 46.8 years. Use of CAM was higher in females compared to males. (82.2% vs. 17.8%). Patients with rheumatoid arthritis, low back pain, osteoarthritis had more predilections for using CAM. Herbal medicine, restricted diet and hydrotherapy were the most used modalities. The most reasons for using different types of CAM were positive history for their effectiveness and usefulness as complementary to other methods of treatment.

Conclusion: Using CAM among rheumatologic patients in Iran (Yazd province) is really prevalent among educated, high income, married and upper age people. The most used CAM methods were herbals, restricted diet and hydrotherapy.

Key words: complementary alternative medicine, rheumatologic, herbal medicine.

INTRODUCTION

The term “alternative medicine” refers to a treatment modality that is not part of conventional and standard medical programs and is used along with the conventional therapies. So it is termed as complementary alternative medicine (CAM).

The use of CAM around the world has been increased dramatically in recent years, however, there are controversies about its effectiveness and advantages. According to the World Health Organization, great movement has being seen towards CAM.

CAM is divided into four major categories: natural products (vitamins, herbal medicines, dietary supplements), mind–body medicine (yoga, meditation, deep-breathing exercises, acupuncture), manipulative and body-based practices (massage therapy, spinal manipulation), and others (whole medical systems, energy fields, movement therapies, traditional healers).¹

Generally, patients with severe and incurable diseases benefit from CAM. In the United States it seems that CAM is being used more widespread among patients with allergy, asthma, and immunology disorders

compared to those with other common chronic medical problems. Prevalence of using CAM ranges from 9 to 65% in different countries.² In 1998 Eisenberg et al. reported that 34% of adults in the United States used at least one unconventional form of health care during the preceding year³, and in 2007 it was reported that approximately 40% of adults and 12% of children in the U.S used CAM.⁴ Recently a survey in the US suggested that approximately 90% of the patients with arthritis use CAM such as herbal medicines.⁵ In Israel, 15% of CAM users in general population used it for joint disorders and up to 90% for back pain.⁶ The latest survey by the National Health Interview Survey (NHIS), showed that the most commonly cited reasons to use CAM were back pain (17.1% of adults surveyed), neck pain (5.9%), joint pain (5.2%), arthritis (3.5%), and other musculoskeletal complaints (1.8%).⁷ Rao et al. reported that CAM has been used frequently by rheumatologic patients.⁸

Using CAM may have some potential risks: toxicity, postponing conventional or classic treatments and drug interactions.^{9,10}

The patients have no desire to speak about use of CAM and perhaps give up this treatment without consulting with their physicians^{8, 11, 12, 13} because they feel that their physicians would reject it. Usually most of the patients are not aware of the use of CAM, hence

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the risks of interactions are not anticipated.¹⁴

The aim of this study was to determine the rate of CAM use among patients with known rheumatic disease who referred to rheumatology clinics in Yazd, Iran.

MATERIALS AND METHODS

A cross-sectional study was distributed over 17 weeks between July and September 2011. 350 patients who referred to rheumatology clinics in Yazd, Iran were recruited for this study. The inclusion criteria for the patients were to be aged at least 20 years and having a known rheumatology disorder lasting at least for three months. The patients with any other systemic and psychologic disorders and those who did not have any personal experience toward CAM were excluded from the study. The sampling was performed randomly. Patients were asked whether they used any form of CAM (previously or recently) or not. Those who had used CAM and volunteered to participate were enrolled in the study. The questionnaire included demographic data (age, gender, education, employment status) and a series of questions including the types of CAM used, reasons for using CAM and its benefits, expenditure on CAM therapies, awareness of their physicians of using CAM, and sources of information about CAM.

The data were analyzed by SPSS 16 and the Ethics

Committee of Shahid Sadoughi University of Medical Sciences approved this study.

RESULTS

Of 350 patients 71 (20.3%) were male and 279 (79.7%) were female. 235 (67.1%) patients used CAM. The mean age of the patients who used CAM was 46.8 years and mean age in patients without using CAM was 46.8 years. Use of CAM in female gender was higher than the male (82.2% vs. 17.8%). 65.3% of CAM users were educated and 68.8% were married. 64.6% of the patients were housewives.

Use of CAM among patients with rather high income was higher than low income ones (82.1% vs. 50%). Patients with rheumatoid arthritis, low back pain, osteoarthritis had more predilections for using CAM. In contrast, only 45% of systemic lupus erythematosus patients used CAM. Demographic characteristics of the patients are shown in Table 1.

There was no significant relationship between disease type and use of CAM. The rate of using CAM among chronic conditions was higher (mean duration of disease in the group that did not use CAM was 50 months). Herbal medicine, restricted diet and hydrotherapy were the most used modalities. In contrast, energy therapy, acupuncture, homeopathies were the least modalities used among rheumatologic patients (Fig.1).

Demographic factor	Number (%) of patients who used CAM	Number (%) of patients who did not use CAM
Gender		
Female	193(82.2)	86(74.8)
male	42(17.8)	29(25.2)
Marital status		
Married	220(93.6)	100(86.9)
single	15(6.3)	15(13.1)
Educational level		
Educated	50(21.2)	98(85.2)
Non-educated	185(78.7)	17(14.7)
Occupation		
Employee	46(19.5)	10(8.69)
Retired	15(6.3)	5(4.34)
Housewife	152(64.6)	76(66)
Student	2(0.08)	4(3.47)
Farmer	1(0.04)	2(1.73)
Worker	1(0.04)	5(4.34)
Others	18(7.6)	13(11.3)
Annual income (in Rial)		
< 2500000	10(4.2)	10(8.69)
2500000-5000000	82(34.8)	44(38.2)
5000000-7500000	84(35.7)	44(38.2)
> 7500000	32(13.6)	7(6.08)
Type of disease		
Rheumatoid arthritis	117(49.7)	53(46)
Osteoarthritis	57(24.2)	19(16.5)
Low back pain	40(17.02)	22(19.1)
Systemic lupus erythematosus	5(2.1)	6(5.2)
Carpal tunnel syndrome	2(0.8)	2(1.7)
Behcet disease	2(0.8)	1(0.86)
Undifferentiated arthritis	12(5.1)	12(10)

Table 1: Demographic characteristics of the patients

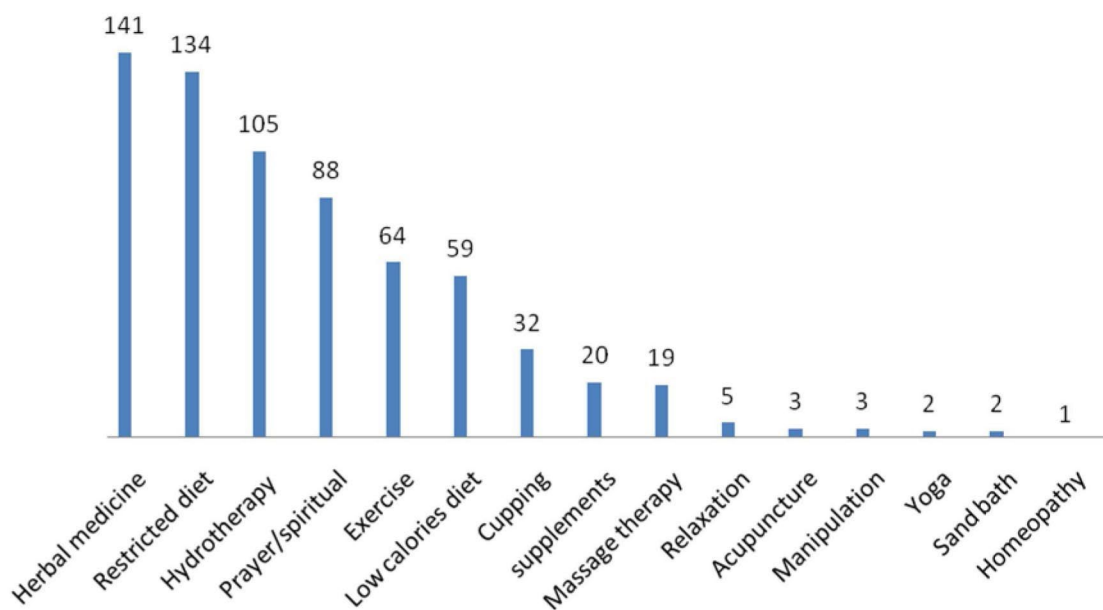


Figure 1

The main reason for using different types of CAM was their effectiveness and usefulness as complementary to other methods of treatment. Only 7% of patients had side-effects because of using CAM such as gastrointestinal upsets and accentuation of pain. The main reason the patients mentioned for not counseling with their physicians about use of CAM was: “they were not asked”.

DISCUSSIONS

Due to great advances in newly developed CAMs in 21st century, it seems that the general physicians should be familiar with principles of CAM. To best of our knowledge, this is the first study in Iran investigating CAM in rheumatologic patients.

Our observations showed that use of CAM was common among the patients (67%). In a Swedish study in 2009 among rheumatologic outpatients, 65% of them had some experience with CAM.¹⁵ In similar study in Israel in 2006 the use of CAM has been reported 42%.¹⁶ In other studies, the results were widely variable and have been reported ranging 18-94%.⁸

This difference in our study could be due to cultural and ethnic differences, availability of different CAM methods, propaganda on publications and media, frequency of chronic diseases and previous experience with conventional medicine. On the other hand, this study has been designed for all rheumatologic patients that referred to clinics, while other studies have assessed specific rheumatologic disorders like systemic lupus erythematosus, rheumatoid arthritis, chronic back pain, etc.¹⁷⁻¹⁹

Our survey has been accomplished by face to face interview, while similar studies collected the data via telephone, E-mail or questionnaires filled by the patients. In this study learning toward use of CAM among females was more than the male, that is in

agreement with the similar surveys in Sweden, Israel and Japan.^{15-17.}

In our subjects, use of CAM had a direct relation with patient’s education as reported by several similar studies.^{8, 16, 18} In a study from Korea, use of CAM had inverse relation with income in arthritis.²⁰ Nahin reported that CAM utilization were higher in well-educated, and economically comfortable patients²¹, however, relation between income and education in use of CAM could be resulted from more knowledge and better access to different types of CAM and more awareness of its advantages.

In the present study, married patients have used CAM more than the singles, that was in agreement with a study by Foltz et al.¹⁸

Patients who had chronic rheumatologic disease were more eager to use CAM, which is similar to a study by Breuer.¹⁶

RA, LBP, OA patients used more CAM than SLE patients (68.8%, 64.6%, 75% and 45%, respectively). This fact could be due to younger age of SLE patients and more complexity of treatment among them along with lesser frequency of pain.

In Foltz study, RA patients had used CAM less frequently than the other rheumatologic conditions and this result was in contrast with our findings. On the other hand, in this study, OA and LBP patients had used CAM more frequently, as confirmed in our study.¹⁶

Among different types of CAM, herbals, restricted diet, and hydrotherapy were more frequent than other types (60%, 57.9%, and 44.4%, respectively). Most of patients have declared that avoidance of some in-frigidants (in contrary to calefacients) foods led to decrease pain that is similar to Owlia et al. study.²²

Today, the importance of using CAM in musculo-skeletal pain especially in rheumatologic patients has

been proved to physicians and nutritionists and needs more comprehensive studies. Some investigators believe that small modification in diet regimen can lead to significant impact on individual health with much less need to chemical drugs for pain control. This issue could be of significant importance addressing the treatment cost.²²

Moreover, patients claimed that hydrotherapy, sauna, jacuzzi were effective in pain relief. Energy therapy, bee therapy, acupuncture and homeopathy were the least modalities used in our study. While in Breuer's study energy therapy and bee therapy were more frequent types of CAM.¹⁶ This difference is probably due to cultural difference, different application of individual CAM in different societies, available CAM experts and awareness of its types.

Among different types of CAM, the efficacy of yoga, herbals, hydrotherapy, restricted diet and sport were satisfactory from the viewpoint of our patients.

Acupuncture and cupping (Hijamat in Arabic language) had less effectiveness that was in contrast to Breuer's study that is probably due to the little experience of CAM specialists and different viewpoints of the patients toward the effectiveness of CAM.

Most of the patients who used CAM had seen some benefit from it (87.7%) mostly on pain relief. Only 7% of the patients had side-effects of using CAM (gastrointestinal upset, limb burning sensation and increasing pain).

Six percent of patients gave up their conventional therapies. Their reasons were time consuming nature of more CAMs and poor efficacy of treatments. Lack of desire for using chemical drugs and sufficient clinical response after CAM was the other reasons for withholding CAMs. In our study, the main reasons for using CAM were their effectiveness and lesser side-effects.

While in Breuer's study, the most reasons for using CAM were advices from their families and friends who previously used them.¹⁶

Among the reasons for using CAM, the recommendation by physicians was the lowest one (28.5%) that could be probably due to lack of knowledge of physicians about CAM.

Our study had some limitations in gathering data from a single province in Iran with a population of about one million with rather traditional culture. Underestimation of using CAM was also probable because the patients may feel that announcing use of CAM might be against their physicians' opinion. Another limitation was that we only investigated the patients who referred to rheumatologic clinics, while it is possible that rheumatologic patients only refer to CAM specialists, missing standard therapies at all.

It could be postulated that if this study was carried out among patients who referred to CAM offices, our results could be more informative. Our study was cross-sectional and longitudinal information was not available to us.

CONCLUSION

We concluded that using CAM is really prevalent among educated, high income, married and elder patients in Iran (Yazd province).

The most used CAM methods were herbals, restricted diet and hydrotherapy. Most of the patients (88.5%) had good clinical response using all types of CAM.

Efficacy of yoga, herbals, hydrotherapy, restricted diet and sport therapy were high from the viewpoints of patients, while acupuncture and cupping (hijamat) were not.

REFERENCES

1. Berman BM, Hartnoll S, Bausell B. CAM evaluation comes into the mainstream: NIH specialized Centers of research and the University of Maryland Center for Alternative Medicine Research in Arthritis. *Complement Ther Med.* 2000 Jun; 8(2):119-22.
2. Ernst E. Rise in popularity of complementary and alternative medicine: reasons and consequences for vaccination. *Vaccine.* 2001, 15; 20 Suppl 1:S90-3; discussion S89.
3. Eisenberg DM, Davis RB, Ettner SL, et al. Trends in alternative medicine use in the United States, 1990-1997: results of a follow-up national survey. *JAMA.* 1998 Nov 11; 280(18):1569-75.
4. Barnes PM, Bloom B, Nahin RL. Complementary and alternative medicine use among adults and children: United States, 2007. *Natl Health Stat Report* 2008, 12:1-23.
5. Ernst E. Herbal medicine in the treatment of rheumatic diseases. *Rheum Dis Clin North Am.* 2011; 37(1):95-102.
6. Ernst E. Complementary and alternative medicine in rheumatology. *Bailliere's Clin Rheum* 2000; 14:731-49.
7. Kolasinski SL. Herbal medicine for rheumatic diseases: promises kept? *Curr Rheumatol Rep.* 2012; 14(6):617-23.
8. Rao JK, Mihaliak K, Kroenke K, et al. The use of complementary therapies for arthritis among patients of rheumatologists. *Ann Intern Med* 1999; 131:409-16.
9. Azaz-Livshits T, Muszkat M, Levy M. Use of complementary alternative medicine in patients admitted to internal medicine wards. *Int J Clin Pharmacol Ther* 2002; 40:939-47.
10. Panush RS. American College of Rheumatology position statement: complementary and alternative therapies for rheumatic diseases. *Rheum Dis Clin North Am* 2000; 26:189-92.
11. Shmueli A, Shuval J. Use of complementary and alternative medicine in Israel: 2000 vs. 1993. *Isr Med Assoc J.* 2004; 6(1):3-8.
12. Wallerstedt SM, Skrtic S. [Use of natural remedies is seldom documented in medical records. There is a risk of overlooked interactions and adverse effects, as a point prevalence study shows]. *Lakartid-*

- ningen. 2005; 102(44):3220-2.
13. Barnes PM, Powell-Griner E, McFann K et al. Complementary and alternative medicine use among adults: United States, 2002. *Adv Data*. 2004 ;(343):1-19.
 14. Shuval JT, Averbuch E. Complementary and alternative health care in Israel. *Isr J Health Policy Res*. 2012. 20; 1(1):7.
 15. Klingberg E, Wallerstedt SM, Torstenson T, et al. The use of complementary and alternative medicine in outpatients with inflammatory rheumatic diseases in Sweden. *Scand J Rheumatol*. 2009 Nov-Dec; 38(6):472-80.
 16. Breuer GS, Orbach H, Elkayam O, et al. Use of complementary and alternative medicine among patients attending rheumatology clinics in Israel. *Isr Med Assoc J*. 2006;8(3):184-7.
 17. Kajiyama H, Akama H, Yamanaka H, et al. One third of Japanese patients with rheumatoid arthritis use complementary and alternative medicine. *Mod Rheumatol*. 2006; 16(6):355-9.
 18. Foltz V, St Pierre Y, Rozenberg S, et al. Use of complementary and alternative therapies by patients with self-reported chronic back pain: a nationwide survey in Canada. *Joint Bone Spine*. 2005; 72(6):571-7.
 19. Chatfield SM, Dharmage SC, Boers A, et al. Complementary and alternative medicines in ankylosing spondylitis: a cross-sectional study. *Clin Rheumatol*. 2009; 28(2):213-7.
 20. Lee MS, Lee MS, Yang CY, et al. Use of complementary and alternative medicine by rheumatoid arthritis patients in Korea. *Clin Rheumatol*. 2008; 27(1):29-33.
 21. Nahin RL, Dahlhamer JM, Taylor BL, et al. Health behaviors and risk factors in those who use complementary and alternative medicine. *BMC Public Health* 2007; 7(147):217.
 22. Owlia MB, Rahavi R, Abrishamkar M. et al. Patient's believes on effects of food on musculoskeletal pains. *Hormozgan University of Medical Sciences* 2008; 3 (12), 161-7.