

Perception, Attitude and Usage of Complementary and Alternative Medicine among Patients in a Tertiary Care Teaching Hospital

Anveshu Reddy Biradavolu¹, Mellamputi Jashika², Yamini Vadlamannati³, Madhav P^{4*}
Digumurthy Chandana Priya⁵

¹Postgraduate, Department of Pharmacology, Government Medical College, Nalgonda, Telangana

²Final Year MBBS, Apollo Institute of Medical Sciences and Research Chittoor

³Associate Professor, Department of Pharmacology, Government Medical College, Nalgonda, Telangana

⁴Associate Professor, Department of Pharmacology, Apollo Institute of Medical Sciences and Research Chittoor

⁵Final Year MBBS, Apollo Institute of Medical Sciences and Research Chittoor

Received: 18-01-2024 / Revised: 21-02-2024 / Accepted: 26-03-2024

Corresponding author: Dr. Madhav P

Conflict of interest: Nil

Abstract:

Background: Complementary and alternative medicine (CAM) is defined as a group of diverse medical and health-care systems, practices, and products that are not generally considered part of conventional modern medicine or Western medicine.

Aim and Objectives: To assess the extent of use of CAM among patients. To determine their perception and attitude towards CAM among patients

Methods: The study was conducted among 240 patients attending the Outpatient Department of the government general hospital, Nalgonda, Telangana.

Results & Conclusion: Out of 240 patients 96(40%) patients were using homeopathy, 68(28%) patients were using the ayurveda, 40(16%) patients were utilized local healers and 20(8%) were using yoga therapy.

Keywords: Complementary and Alternative Medicine, Patients, Perception.

This is an Open Access article that uses a funding model which does not charge readers or their institutions for access and distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>) and the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/read>), which permit unrestricted use, distribution, and reproduction in any medium, provided original work is properly credited.

Introduction

Complementary and alternative medicine (CAM) is defined as a group of diverse medical and health-care systems, practices, and products that are not generally considered part of conventional modern medicine or Western medicine.[1] Usage of dietary supplements, yoga, homeopathy, Ayurveda, Unani, Siddha, chiropractic, acupuncture, aromatherapy, herbal medicine, naturopathy, and similar examples of other CAM practices, alone or concomitantly with the modern medicine, is a common practice all over the world. Studies in the Western countries suggest that 35-60% of adults use some form of CAM, and the usage is on the rise.[2]

The Institute of Medicine, USA has defined CAM as “complementary and alternative medicine is a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period. [3] The National Institute of Health has defined CAM as “a

group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine.” [4] In India there is a vast diversity of CAM practices, which can be traced back to many centuries. However the Indian system of traditional medicine is not being integrated into the conventional medical system. In India with a rural population of 68.8%, affordable and effective health care is still beyond the reach of vast sections of the population.

In November 2009, the Government of India has taken a step to promote “Indian Systems of Medicine” by the promotion of Ayurveda, yoga and naturopathy, unani, siddha and homeopathy. It illustrated the motivation of the government in approving CAM as part of an effort to implement the ideology of a holistic approach in patient care. India is characterized by cultural diversity hence; there is a need to identify the most preferred CAM treatments, how often they are being used by patients and what factors influence the use.

Although CAM is a common practice in India, there is a paucity of data regarding the use and acceptance of CAM by patients. [5] The use of CAM by people may vary, some patients do not trust conventional medicine and believe that it has more side-effects, while some are dissatisfied with conventional medicine that they had used previously, and they shift to CAM. Yet, others consider CAM well-suited with their values or beliefs of healthiness.[6] The increased utilization of CAM has created a growing interest toward CAMs that have been researched in many countries[7,8] There is documented evidence that the use of CAM in western society is high [6-8] and that its use is increasing worldwide [9,11-13] Researchers have accredited the use of CAM in patients with cancer, arthritis, diabetes.[14-18]

Aim and Objectives

1. To assess the extent of use of CAM among patients
2. To determine their perception and attitude towards CAM among patients

Methodology:

Study design: A cross sectional observational nonrandomized hospital-based study.

Population, study mode of selection of subjects:

The study was conducted among 240 patients attending the Outpatient Department of the government general hospital, Nalgonda, Telangana. The study was approved by the Institutional Ethical Committee and informed consent was obtained from the subjects. The same data collector was interviewed all the patients to maintain uniformity of data collection. The instrument for data collection was a pretested, semi-structured, validated questionnaire developed by the researchers and made separately patients. The proformas were divided into two parts. The first part included questions regarding the demographic status. The second part had questions pertaining to the perception and attitude towards CAM and its utilization by the study subjects that is patients.

Results

Table 1:

The influence of demographic factors on the use of CAM in doctors and patients	
Single digit	13
10 – 19 yrs	14
20 – 29 yrs	38
30 – 39 yrs	42
40 – 49 yrs	59
50 – 59 yrs	44
60 – 69 yrs	15
70 – 79 yrs	9
80 – 89yrs	6

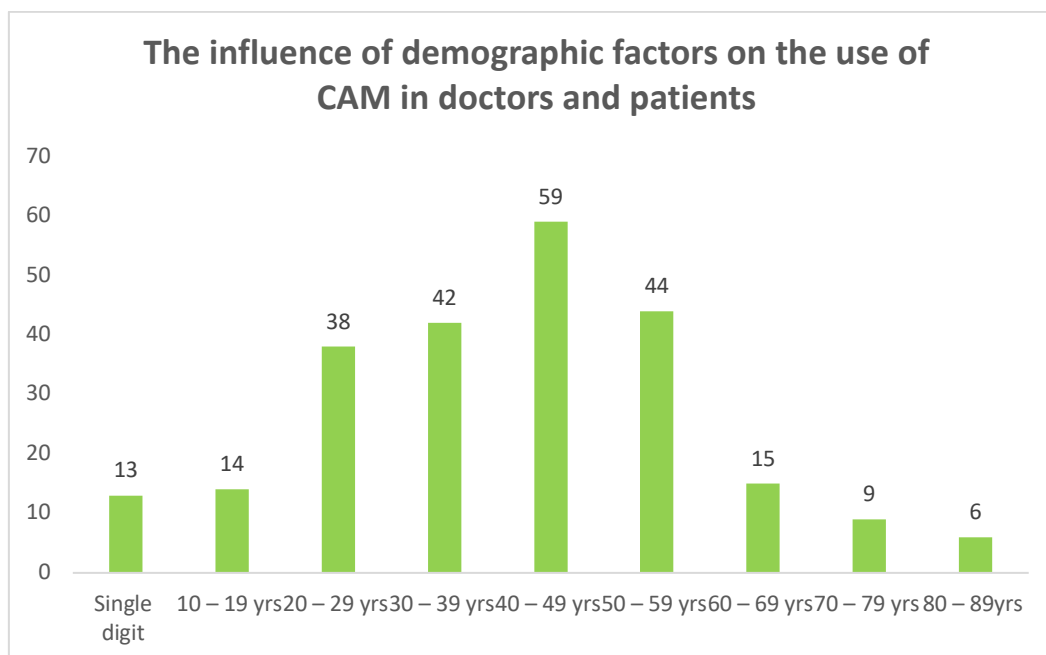


Figure 1: The influence of demographic factors on the use of CAM in doctors and patients

The demographic characteristics of the study population are expressed in Table 1.

The number of CAM users is more in the age group between 40-49 and 50-59 years of age and less in the age group between 70-79 years of age. There was remarkable difference in generality and residence of CAM usage in different sexes. The

utilization of CAM was higher in males and in rural people than female and urban people. The possibility of CAM users was disseminated more among graduate people than primary and secondary education.

The impact of distance was not correlated with the usage of CAM.

Table 2:

Patients used CAM on advice of	
Friends	138
Family	90
Own will	12
Referred by doctor	0

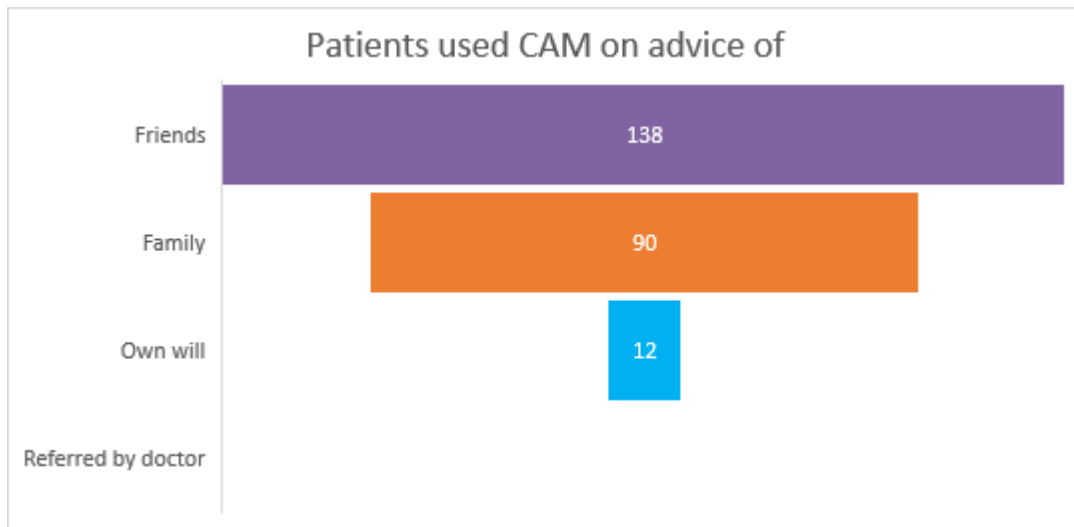


Figure 2: Patients used CAM on advice of

Table 2 represents data to evaluate the attitude and perception of CAM users. More than 50% of CAM users had belief in beneficial role of CAM. 138(56%) of patients used CAM on advice of friends followed by family 90 (38%) and less percentage 12 (5%) by their own will. 139(58%) CAM users advanced immediately on getting unwell. 193 (80%) patients were not using the CAM concomitantly with allopathic medicines.

Table 3: (a)

Advantages and disadvantages of CAM	
Advantages	
More efficacious	18%
Complete cure	15%
Rapid symptomatic relief	11%

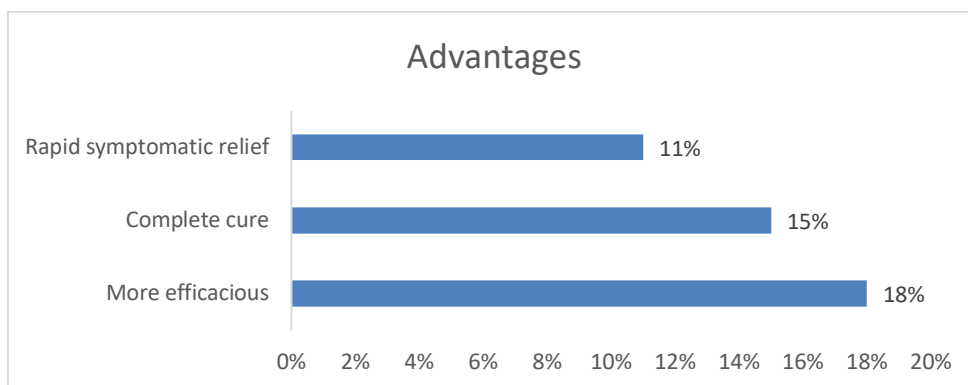


Figure 3: Advantages

Table 3: (b)

Disadvantages	
Disadvantages	
Useful for few diseases	10%
Costlier & Symptomatic relief only	7%

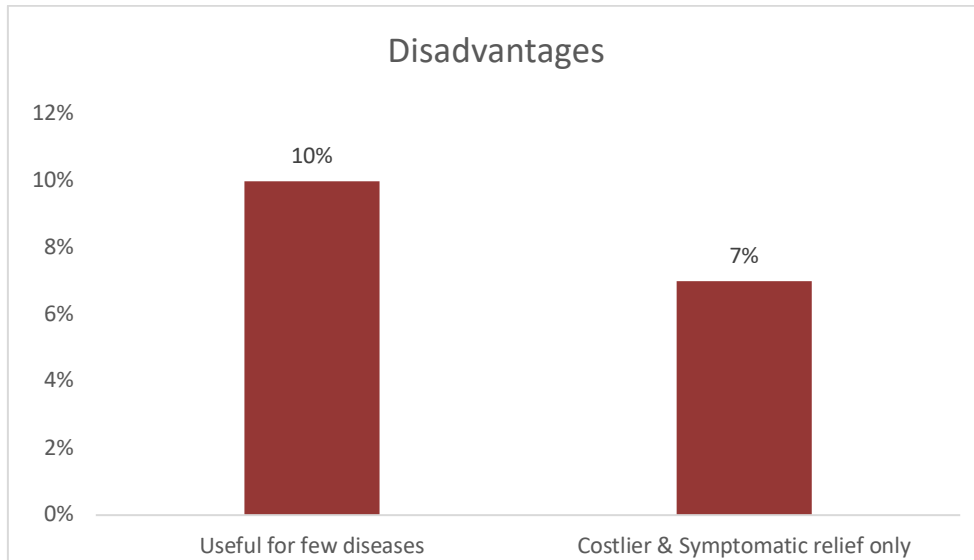


Figure 4: Disadvantages

Table -3 constitute details regarding advantages and disadvantages of CAM stated by informant. In this table between advantages and disadvantages of CAM 18% of CAM users mentioned are more efficacious accompanied by 15% CAM users informed complete cure and 11% patients identified rapid symptomatic relief. Among the disadvantages of CAM 23(10%) patients mentioned useful for few diseases followed by 7% patients told CAM therapy was costlier and only cause symptomatic relief only

Table 4:

Types of CAM	
Ayurveda	68
Homeopathy	96
Local healers	40
Yoga	20
Unani	10
Others	6

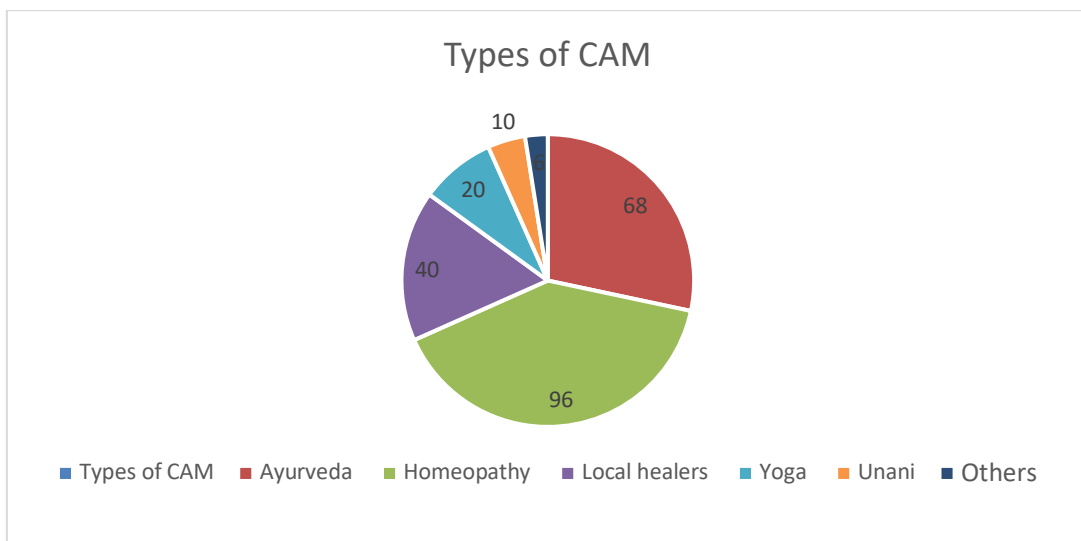


Figure 5: Types of CAM

Table 4 shows the prediction for the type of CAM usage by patients. Out of 240 patients 96(40%) patients were using homeopathy, 68(28%) patients were using the ayurveda, 40(16%) patients were utilized local healers and 20(8%) were using yoga therapy.

Table 5:

Distribution of various disorders in CAM utilizing patients	
Dermatological disorders	32
GIT disorders	20
Analgesia	36
Gynaecological disorders	19
Metabolic disorders	24
Infectious diseases	27
Respiratory diseases	15
Neurological diseases	32
Renal diseases	18
Miscellaneous	17

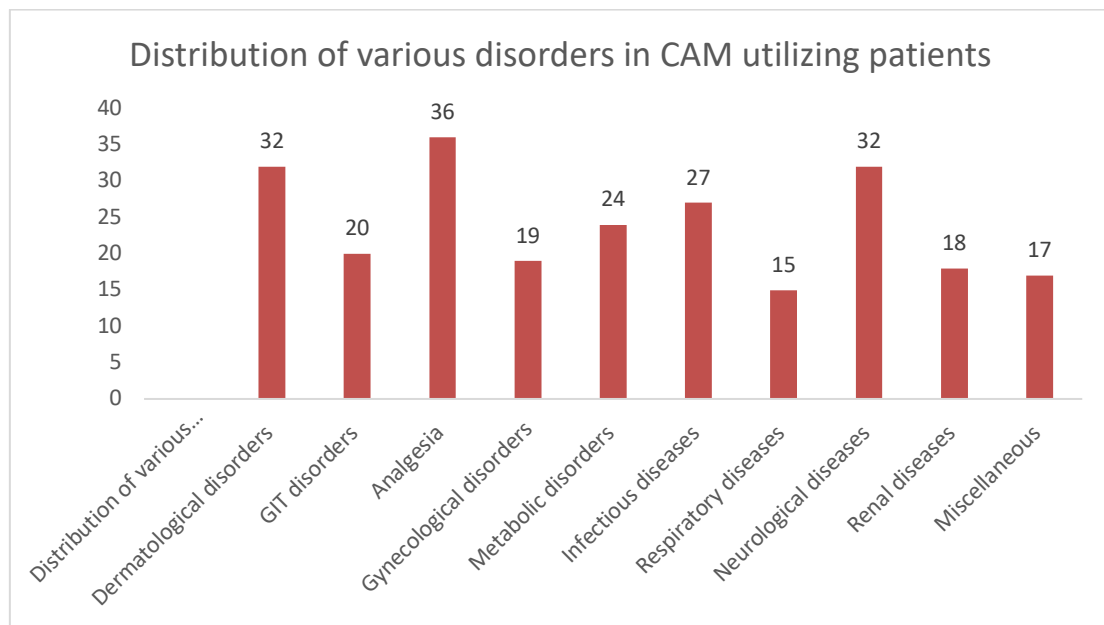


Figure 6: Distribution of various disorders in CAM utilizing patients

Table -5 showed the medical conditions for which CAM therapy was used. CAM therapy is most frequently used in conditions for which analgesia (15%) is required followed by Dermatological (13%) and neurological (13%) diseases, infectious diseases (11%), metabolic disorders, and GIT disorders and renal diseases.

Discussion

In the present study 25% of the CAM users were in the age group of between 40-49 yrs. of age which is contrast to the study done by Ekansh Sharma et al. [19] And similar to the study done by Jayanti ray et al.[20]A survey by government of India in 2014 found that around 7% of the population (both urban and rural) received CAM treatment from recognised institutions within the last 15 days prior to the survey. [21]

In our study use of CAM is better in females than males in similar to the studies done by Ekansh

Sharma et al [19] and bakhotmah et al. [22] The cultural circumstances and differing health beliefs between the genders may be likely reason for this observation.[23] The graduated patients were using CAM more than primary and secondary school completed patients. This is similar to the study done by shmueli. A et al. In a wide range of studies. It has been found that educated patients tends to have higher incomes and can better meet the expense to use CAM. [24]

In the present study homeopathy was commonly used CAM followed by ayurveda, local healers, yoga etc. This is like the studies done by el gendy AR .et al [25] and contrast to studies done by viplav et al [26] and ekaansh Sharma.[19] The system of the CAM selected depends on the accessibility and affordability, the profile of the disease states, awareness, experience and beliefs about CAM and their social acceptance.[27] In our study 67% of CAM users declared belief in

beneficial role of CAM. The familiar causes informed by CAM users for the beneficial role of CAM was good previous experience and less treatment associated complications.[28]

In our study 56% of the CAM users utilised the services on advice of friends followed by family. The main difficulty with this was the CAM users may not reveal the parallel use of allopathic medicines which can open to toxicity or complications. Hence CAM users should be motivated to share the simultaneous use of alternative medicine with the health care professionals.[29]

Most of CAM users (58%) approached immediately on getting unwell. Only 20% of CAM users proceed after not getting relieved by allopathic medicines. Feeling regret to conventional medicine and raise of good feeling were the usual reasons expressed by CAM users for their utilisation of CAM like previous studies.[28]

In our study the main advantages of CAM stated by respondents were more efficacious and complete cure due to utilisation of CAM in like the study done by apurva Agarwal et al [20] where 33% CAM users stated that CAM is more effective and contrast to study done by avitha3jaiswal [30] where respondents expressed that CAM is natural and have no side effects. The disadvantage Of CAM in our study was useful for few diseases and symptomatic relief after using CAM. This data was like the previous studies. [12] As India has a long and rich history of ayurveda and other traditional medicines, people have strong faith in them.[31]

CAM is more commonly practiced for conditions for which analgesia is required followed by dermatological disorders and neurological disorders in the present study. This study contrasts with study done by viplav et al. [32]

Conclusion:

Doctors should be aware of the various methods of treatment in their patients. In several cases, such alternative therapies are part of the culture. Thus, an open discussion with patients in a culturally sensitive manner is essential to formulate an effective treatment plan. In India, the loco-regional patterns of CAM use must be identified to understand the behaviour of individuals toward illness.

References

1. Mishra SK, Trikamji B, Togneri E. Complementary and alternative medicine in chronic neurological pain. *Indian J Pain*. 2015; 29:73-81.
2. Kim HJ, Jeon B, Chung SJ. Professional ethics in complementary and alternative medicines in

- management of Parkinson's disease. *J Parkinsons Dis*. 2016; 6(4):675-83.
3. Sherman KJ. Complementary and Alternative Medicine in the United States. In: Institute of Medicine of the National Academies, the National Academies Press. N.W. Washington DC; 2005:1- 337.
4. National Institutes of Health, National Center for Complementary and Alternative Medicine. The use of Complementary and Alternative Medicine in the United States: Cost Data, 2008. Available at https://files.nccih.nih.gov/s3fs-public/NHIS_costdata.pdf. Accessed on 19 October 2020.
5. Ceylan S, Azal O, Taslipinar A, Türker T, Açıkel CH, Gulec M. Complementary and alternative medicine use among Turkish diabetes patients. *Complement Ther Med* 2009; 17:78-83.
6. El-Gendy AR. Regional overview: Eastern mediterranean region. In: Bodeker G, Ong CK, Grundy C, Burford G, Shein K, editors. WHO Global Atlas of Traditional, Complementary and Alternative Medicine. Geneva, Switzerland: WHO Press, World Health Organization, Centre for Health Development, Kobe, Japan; 2005; 151-81.
7. Mathew E, Muttappallymyalil J, Sreedharan J, John Lj, John J, Mehboob M, et al. Self-reported use of complementary and alternative medicine among the health care consumers at a tertiary care center in Ajman, United Arab Emirates. *Ann Med Health Sci Res* 2013; 3:215-9.
8. Naja F, Alameddine M, Abboud M, Bustami D, Al Halaby R. Complementary and alternative medicine use among pediatric patients with leukemia: The case of Lebanon. *Integr Cancer Ther* 2011; 10:38-46
9. Khalaf AJ, Whitford DL. The use of complementary and alternative medicine by patients with diabetes mellitus in Bahrain: A cross-sectional study. *BMC Complement Altern Med* 2010; 10:35.
10. Eisenberg DM, Kessler RC, Foster C, Norlock FE, Calkins DR, Delbanco TL. Unconventional medicine in the United States. Prevalence, costs, and patterns of use. *N Engl J Med* 1993; 328:246-52.
11. Fisher P, Ward A. Complementary medicine in Europe. *BMJ* 1994; 309:107-11.
12. MacLennan AH, Wilson DH, Taylor AW. Prevalence and cost of alternative medicine in Australia. *Lancet* 1996; 347:569-73.
13. Eisenberg DM, Davis RB, Ettner SL, Appel S, Wilkey S, Van Rompay M, et al. Trends in alternative medicine use in the United States, 1990-1997: Results of a follow-up national survey. *JAMA* 1998; 280:1569-75.

14. Ki tai E, Vinker S, Sandiuk A, Hornik O, Zeltcer C, Gaver A. Use of complementary and alternative medicine among primary care patients. *Fam Pract* 1998; 15:411-4.
15. Barnes J, Abbot NC, Harkness EF, Ernst E. Articles on complementary medicine in the mainstream medical literature: An investigation of MEDLINE, 1966 through 1996. *Arch Intern Med* 1999; 159:1721-5.
13. Martel D, Bussi eres JF, Th eor et Y, Lebel D, Kish S, Moghrabi A, et al. Use of alternative and complementary therapies in children with cancer. *Pediatr Blood Cancer* 2005; 44:660-8.
16. Herman CJ, Allen P, Hunt WC, Prasad A, Brady TJ. Use of complementary therapies among primary care clinic patients with arthritis. *Prev Chronic Dis* 2004; 1: A12.
17. Bakhotmah BA, Alzahrani HA. Self-reported use of complementary and alternative medicine (CAM) products in topical treatment of diabetic foot disorders by diabetic patients in Jeddah, Western Saudi Arabia. *BMC Res Notes* 2010; 3:254.
18. Barnes PM, Powell-Griner E, McFann K, Nahin RL. Complementary and alternative medicine use among adults: United States, 2002. *Adv Data* 2004:1-19.
19. Ekaansh Sharma, Ashok Kumar Dubey, Shivam Malhotra, Sachin Manocha, Shailendra Handu. Use of complementary and alternative medicines in Indian elderly patients. *Natl J Physiol Pharm Pharmacol.* 2017; 7(9): 929-934.
20. Roy V, Gupta M, Ghosh RK. Perception, attitude and usage of complementary and alternative medicine among doctors and patients in a tertiary care hospital in India. *Indian J Pharmacol.* 2015 Mar-Apr; 47(2):137-42.
21. Rudra S., Kalra A., Kumar A., Joe W. Utilization of alternative systems of medicine as health care services in India: evidence on AYUSH care from NSS. *PLoS One.* 2014;12
22. Bakhotmah BA, Alzahrani HA. Self-reported use of complementary and alternative medicine (CAM) products in topical treatment of diabetic foot disorders by diabetic patients in Jeddah, Western Saudi Arabia. *BMC Res Notes* 2010; 3:254.
23. Shmueli A, Shuval J. Complementary and alternative medicine: Beyond users and nonusers. *Complement Ther Med* 2006; 14:261-7.
24. Shmueli A, Shuval J. Complementary and alternative medicine: Beyond users and nonusers. *Complement Ther Med* 2006; 14: 261-7.
25. El-Gendy AR. Regional overview: Eastern mediterranean region. In: Bodeker G, Ong CK, Grundy C, Burford G, Shein K, editors. *WHO Global Atlas of Traditional, Complementary and Alternative Medicine.* Geneva, Switzerland: WHO Press, World Health Organization, Centre for Health Development, Kobe, Japan; 2005; 151-81.
26. Kshirsagar, V., Tiwari, S., Thingore, C., & Limaye, D. The practice, attitude, and knowledge of complementary and alternative medicine in Mumbai, India. *International Journal of Community Medicine and Public Health*, 2020; 7(12): 4792–4798.
27. Rodrigues-Neto JF, Figueiredo MF, Faria AA. Prevalence of the use of homeopathy by the population of Montes Claros, Minas Gerais, Brazil. *Sao Paulo Med J* 2009; 127:329-34.
28. Naja F, Alameddine M, Abboud M, Bustami D, Al Halaby R. Complementary and alternative medicine use among pediatric patients with leukemia: The case of Lebanon. *Integr Cancer Ther* 2011; 10:38-46.
29. Vidal M, Carvalho C, Bispo R. Use of complementary and alternative medicine in a sample of women with breast cancer. *Sage Open* 2013:1. Available from: <http://www.sgo.sagepub.com>.
30. Avita Jaiswal, Chaitali Bajait, Sonali Pimpalkhute. Knowledge, attitude and practice of complementary and alternative medicine: A patient's perspective. *International Journal of Medicine and Public Health*, Jan-Mar 2015;5 (1): 19-23.
31. Kristoffersen AE, Stub T, Broderstad AR, Hansen AH. Use of traditional and complementary medicine among Norwegian cancer patients in the seventh survey of the Troms o study. *BMC Complement Altern Med* 2019; 19:341. 14.
32. Kshirsagar, V., Tiwari, S., Thingore, C., & Limaye, D. The practice, attitude, and knowledge of complementary and alternative medicine in Mumbai, India. *International Journal of Community Medicine and Public Health*, 2020;7(12), 4792–4798.