

The prevalence and patterns of usage of Ayurveda, Unani and home remedies in younger adults of rural North India

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Abstract

Introduction: The study was conducted to evaluate the drug utilization pattern of Ayurveda, Unani medicines and folk medicine in comparison to the drug from the modern system (allopathy system) in rural areas of Mewat, Haryana. **Materials and Methods:** The study was cross-sectional questionnaire-based community survey. The 300 healthy adult male volunteers more than 18 years of age participated in the survey in city Nuh of the district Mewat after obtaining the oral consent. All the participants were literate. **Main Outcome Measures:** The participants were asked about the experiences with complementary and alternative medicine (CAM) medications in four different categories. Firstly; their preferences for using Ayurvedic, Unani, herbal, dietary supplements, home remedies or any other external preparation for disease. Second, whether they took the medicine by their own initiative, AYUSH doctor, Pharmacist and on recommendation of any other friend and family members. Third, perceived experiences of the medication taken as effects, side effects and do not know. Fourth, the conditions for which the medication was taken. **Results:** There was widespread utilization of Ayurveda (62%), Unani (74%) and other traditional therapies (76%) alternatively or complementarily for the different afflictions. The CAM was preferred by 60% of the respondents and 71% consider it to be more effective over allopathy. The majority (83%) sought the CAM treatment on family and friend's recommendations. **Conclusions:** The CAM therapies have more acceptability in the general public because of their perceived high safety, lesser cost and accessible to the general public. However, the health-care infrastructure for providing acceptable CAM therapy is still lacking.

Key words: Ayurveda, complementary and alternative medicine, healthcare policy, rural India, Unani, utilization pattern

INTRODUCTION

There is growing interest in complementary and alternative medicine (CAM), particularly the Indian systems of medicine worldwide.^[1-4] The World Health Organization (WHO) encourages country members to support the regional traditional medicines by formulating policies and appropriate regulations inculcating it in preventive, promotive and curative aspect of health.^[5] Resultantly, the government of India has institutionalized the Indian systems of traditional medicine as the Department of AYUSH elaborated as Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy.

Major impetus to the traditional system of medicine in India came after Independence in 1971 when a Central Research Council

for Research in Indian Medicine, Homeopathy, and Yoga (CCRIM) was created followed by creation of Central Council of Indian Medicine in 1972 for education and registration of degrees. Again there was division of the CCRIM into Central Council for Research in Ayurveda and Siddha, Central Council for Research in Unani Medicine, Central Council for Research in Homoeopathy, and Central Council for Research in Naturopathy and Yoga. Worldwide there is a realization of the importance and need of such therapies, and recently the

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United Nations has declared 21st June as the International day of Yoga.^[6]

Objective of the Study

Our survey particularly elicited the information regarding Ayurveda, Unani and folk medicines used in young adults above 18 years of age in rural part of North India. We asked them about their use of various intended and unintended use of home remedies, natural products, herbal teas, and other use of CAM products for their ailments till date as compared to the allopathic system of medicine.

MATERIALS AND METHODS

Selection and Description of Participants

The study was conducted in District Mewat of Haryana, India. It was a cross-sectional survey from November 2016 to January 2017. Participation was anonymous and verbal consent was obtained before completing the questionnaire. Total 300 subjects were chosen from rural areas of Nuh. The total electoral strength of assembly Nuh (i.e., population >18 years of age) as per Haryana Government Census updated on January 11, 2016, is 158,630.^[7] There is only 54.0% literacy rate thus as per the 2011 Government census report making it a literate population of 85,787.10 in the assembly Nuh.^[8] The city has a 500 bedded teaching health-care institution and allopathic medicines are readily available. The participants were approached by visiting educational institutes of rural Mewat and by personally meeting at their residents.

All the subjects were literate and more than 18 years of age. Particularly, male young adults (mean age = 20 ± 2.33) were enrolled as females are seldom talk to the strangers in this community. All the participants were provided with questionnaire. They were mentally sound and well oriented and true representative of the study population. One-to-one face interview was taken by the trained staff. The survey instrument had 20 categories of responses. All the participants were asked five demographic questions (age, birth, current hometown, education, and ethnic background) to ascertain the ethnicity and representativeness of the sample population.

Technical Information

All the subjects were provided with a questionnaire prepared by extensive search of the related literature. The reliability of the questionnaire was determined by prior introduction in the pilot population and 15 min time response was concluded to assess the appropriate responses. The questionnaire asked for demographic profile of subjects and carries many questions about CAM. Some of the questions included whether the subjects previously used different categories (including

Ayurvedic, Unani, and herbal) of alternative medicines, if used on whose recommendation (doctor, family member or self) and which therapy he prefers (allopathic or alternative), etc. The responses were asked in qualitative yes and no format.

Statistical Analysis

The Excel 2010 software was used for statistical analysis and values were represented as mean \pm standard deviation.

Theory

Need for integration and recognition

Indian traditional medicine is playing a strong role in providing health care to large part of the population because of its readily accessible and cost-effective nature. However, because of the lack of structured infrastructure and assessment of utilization pattern of the AYUSH system of medicine, the Ministry of Health and Family Welfare, Government of India has produced a detailed status report on Indian medicine and folk healing. The part I and part II of the report were submitted in September 2011 and February 2013, respectively.^[9] The part II of the report focused on health seeking behavior of the consumers, widespread use of AYUSH drugs as complementary medicine and status of government policy for its integration with the modern system of medicine. One of the final recommendations stressed the need for more independent surveys for the utilization patterns of the AYUSH drugs in India.

Although the Department of AYUSH in India has helped the recognition of these therapies and their use is growing exponentially, especially that of Ayurveda and Unani medicines. But their knowledge, use and relative popularity of different therapies differ among communities, societies, and countries. The two systems of medicines - i.e., Ayurveda and Unani - are most widely used in rural areas of the world including India.^[10] These are medicinal plant-based therapies and utilized by large section of the population especially in developing countries. The full potential of these therapies can only be realized by understanding the way these systems function. The brief working knowledge is necessary to the general public for optimum utilization.

Brief overview of two most common CAM used in India

Ayurveda originated from the folk medicines in India through their persistent use and uses natural plant derived medicines and various minerals. It provided the integrated approach in health and disease and literally means the science of life. It encompasses Charaka School of thoughts for medicine and Sushruta Samhita for surgery. It takes into consideration not only the medicinal plants but also physical, psychological and spiritual well-being of humankind. The treatment of

the disease is based on balancing the disturbed humors called “doshas.” The management is based on regulating diet, lifestyle modification, non-drug therapies known as “Panchkarma,” intake of drugs and rejuvenation therapy.

Conversely, the Unani system of medicine was developed in Greece by the great physician and philosopher Hippocrates in the year 377-460 BC. The concept of Unani medicine is based on the consideration of body made up of four basic elements “earth,” “air,” “water” and “fire” which corresponds to four temperaments cold, hot, wet, and dry. All the organs of the body gets the nourishment from four “humors” blood, phlegm, yellow bile, and black bile. The disease occurs when there is disequilibrium between the humors, and functions of the body with respect to the temperament and environment. The treatment in this therapy includes prevention habits and management with the help of the drugs derived from medicinal plants, herbs, minerals, metallic, and animal origin. The present form of this therapy is the result of extensive work by Ali Ibn Sina (980-1037 AD) who wrote book on medicine and Abul Qasim Al-Zahravi’s work on surgery.

RESULTS AND DISCUSSION

Total 300 subjects were enrolled in the study. The mean age of study population is 20 ± 2.33 years. Out of total respondents, 53% of subjects were below 20 years. All the participants were literate ($>12^{\text{th}}$ standard) and were from rural background. The participants responded to more than one entry in different categories wherever they had to pick one out of many responses. Figure 1 shows that 62% subjects had used Ayurvedic preparation for illness during their lifetime.

In addition to that 74%, respondents admitted that they had used Unani drugs for some illnesses. Similarly, 61% and 76% volunteers admitted that they employed herbal medicine and home remedies for treatment. The subjects who showed faith in dietary supplements such as multivitamins and proteins and external preparations were 50% and 35%, respectively.

Table 1 shows that whether the subjects used CAM by their own initiative or on recommendation of AYUSH physician, pharmacist or family members.

Most of the respondent (83%) admitted that they had used the drugs on recommendation of their family members, 48% on recommendation of AYUSH physician. In 30% cases pharmacist recommended them the medicines and 25% subject said that it was their own initiative.

Figure 2 represents the efficacy and safety responses from the participants. The majority (71%) were of the opinion that they had experienced positive or beneficial effect, while 15% experienced side effect. The rest 23% did not feel any effect from the CAM medicines.

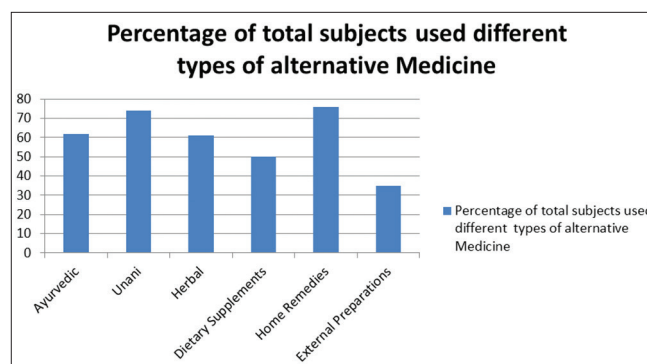


Figure 1: Preferences of rural population toward different health-care therapies

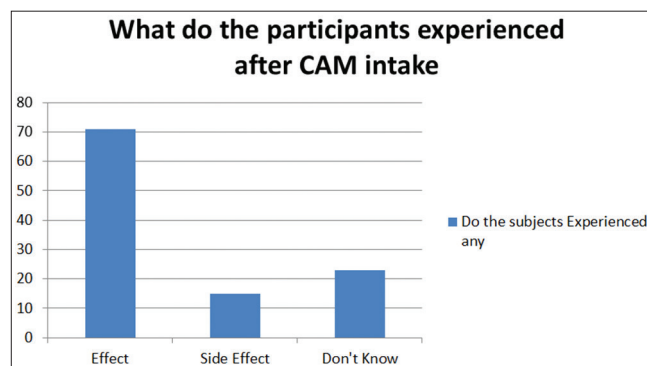


Figure 2: Perceived effects of complementary and alternative medicine therapy

Table 1: Recommendation on which CAM therapy was initiated

Recommended by	%
AYUSH doctors	48
Pharmacist	30
Friends and family	83
Own initiative	25

CAM: Complementary and alternative medicine

On asking about whether they had used CAM therapy in combination with allopathy, 53% said that they had complemented the conventional therapy with one of the CAM products. Certainly in the same way 60% subjects are of opinion that CAM therapy is better than allopathy. These therapies are mostly used for immunomodulation (20%), gastrointestinal disorder (18%) and in 15% as blood purifier [Table 2].

The growing realization of concerning adverse effects of conventional allopathic medicines on human beings as well as on the ecosystem led to the development of speciality such as pharmacovigilance and eco-pharmacovigilance, respectively. In addition to that, the inequitable distribution of health-care resources has resulted in the re-emergence and use of traditional medicine/CAM. The CAM therapies are readily available, cheaper, accessible, affordable, and

Table 2: Exposure to CAM and reasons for its use

Participant experience	Outcome
Have you used alternative medicine with allopathy any time in your life	
Yes	53
No	47
Which mode of treatment do you prefer	
Allopathy	40
Alternative	60
CAM used for	
Immunomodulator	20
Gastrointestinal disorders	18
Blood purifier	15
Nootropic	12
Aphrodisiac	12
Hepatoprotective	10
Upper respiratory disorder	10
Antiobesity	02

CAM: Complementary and alternative medicine

safer to the general public in rural as well as in urban areas of the world for maintenance of health.^[11] The WHO and United Nations Human Rights Commissions have included the access to appropriate healthcare as basic human rights.

Growth of CAM

Therefore, interest in traditional medicine/CAM has risen due to dissatisfaction with conventional therapies, empowerment to control the therapy by the patients themselves and connected with their belief system. The health practices presently which are not the integral part of the conventional system are defined as the CAM by the National Centre for CAM.^[12] The CAM therapies are utilized globally by the developed as well as developing countries.^[13] The Ayurveda is the most ancient healing science in India utilized by almost 70% of the population.^[14] The second most commonly utilized CAM system is the Unani system of medicine.

Although it is not recognized as rationale and reliable by the modern system of medicine, more validation and clinical standardization will surely lead to extensive acceptable treatment options for the public at large. At present not only in India where its use is 65%, the estimated use of traditional medicine is around 80% in Asia, Latin America and Africa and nearly 50% in developed countries such as Australia, United States, France and Canada.^[15,16] One such study conducted in Texas in breast and other gynecological cancer patients showed the use of CAM to be 48% irrespective of the stage of malignancy while another study on geriatric patients conducted in Germany puts it to be 61.3%.^[17,18] Further, the use of CAM therapy in specific groups has been

studied such as Hypertensive in South African countries where the utilization was around 51.9-63%.^[19] Moreover, Indian population living in South Africa was using CAM in the range of 42.8-48.1%.^[20]

Present Status as Therapy

While WHO secretariat report of India observed that traditional medicines are the only available health care for 65%^[16] and used by the 80% of the Asian population.^[3] It is the first health-care choice in some disadvantaged and economically backward areas and used as alternative to the conventional system of medicine.^[21] In the growing economies such as China and India, there is gap in rural and urban health-care infrastructure and CAM needs proactive support and encouragement. The WHO has issued directives regarding the framing policies, regulation, financing, research, practice, and use of CAM.^[22] Moreover, all the regions in the world are lacking the traditional medicine utilization data, and only rough estimates are projected at most of the places.^[23]

The utilization of CAM therapy around the globe has been reported between 9% and 65%.^[24] In our study, the use of Ayurveda (62%) corresponds to the previous study data, but surprisingly Unani medicine acceptability and utilization was more (74%). The general perception of the public regarding the safety of these therapies is positive in our study where 71% participants had reported positive effects, and 60% of them had used the CAM therapy along with conventional treatment as a complement. However, Kinsel et al. 2003 study determined that only 40% patients discuss their use with the physicians. The prescription notes in urban government health institutions showed drugs from CAM along with the allopathy. Even the conventional practitioners are using CAM therapies in their prescriptions. One of such studies showed that allopathy hospital prescriptions contained 12% Ayurvedic drugs.^[25]

Quality, Safety, and Efficacy of CAM Products

Apart from the Indian system of medicine institutionalized as AYUSH by the government of India many orally transmitted traditional home remedies and indigenous systems such as food recipes, rituals and customs are in vogue in the rural primary health-care services. These traditional experiences have been accumulated over centuries by the regional communities using the local ecosystem and considered to be culturally compatible. However, still some adverse events are reported due to unsupervised intake. In addition to that national regulations fall short of addressing the common concerns associated with the CAM such as quality, safety, efficacy, and rational use.^[21]

Recently, the CAM therapy has experienced major shift from the household use to the industrial production and in India alone there are more than 10,000 pharmaceutical units

producing the CAM products. The quality and validity of the product has become a challenge and world over the quality and safety is far from being sufficient.^[26,27] The reasons are the lack of proper clinical study, validation of therapy and documentation.

However, there is a general perception of the public that Ayurvedic and Unani medicines are safe but strict adverse drug reactions monitoring and drug-drug interaction has revealed some of the toxic cases such as interaction associated with St. John's Wort, Ginkgo and Kava Kava beans. Further needs of evaluating heavy metal toxicity in these preparations have become mandatory after the detection of lead, mercury, and arsenic in products in American market. It is very difficult to maintain quality control without affecting the access to the general public as it raises the cost of the drugs but it is imperative for better public healthcare.^[28] This has led to the development of scientific evidence based therapy and acceptability in the countries with the mature regulatory bodies where these medicines face strict regulatory testing.

Way Forward

Nearly 83% of the respondent had taken the CAM medicine through family and friend recommendation in our study. Thus, home remedies through the development of home herbal garden can provide solutions to many primary health-care problems such as viral fevers, gastrointestinal problems, anemia, diabetes, hypertension and infants' gastrointestinal problems. These medicines can be self-administered and reduce the health-care burden on the communities. Although in recent past international and national policies have taken various steps to promote the accessibility of these medicines, it has been sluggish due to lack of development of the infrastructure and recruitment of the trained staffs.

The role of such survey studies and government policies are to provide information, education, and communication regarding the appropriate use of these therapies to the general public as well as the allopathic and CAM practitioners for potential side effects and interactions. The rationale use of these therapies will decrease the health-care burden on the society and the governments. Our study implied on three different aspects of the therapies first is to impart knowledge, qualifications, and expertise to CAM practitioners; second is to inform, educate and communicate the consumers and third is to enhance knowledge sharing among the allopathic and CAM practitioner to share the drug interactions and adverse events.

CONCLUSION

Our study has determined that CAM therapies including the home remedies are taken by the large section of young generation with more compatibility than the Allopathic

system of medicine. In addition to that, the CAM therapies are started in childhood by the parents and by the individuals themselves in the adult life. The use of home remedies and other traditional therapies have been incorporated by various communities in their daily life worldwide. Although there are large acceptability and compatibility for these therapies in the community, there is gap in creating related health-care infrastructure and development of manpower by the governments.

In the present world where there is growing scientific temperament of the consumers, it will be prudent to integrate the systems to meet the healthcare demands of the society and to achieve the better results. The data regarding the utilization of these therapies are very scanty, and many more independent utilization studies are needed to frame the policies.

The old notion that all the CAM therapies are safe is fading and needs re-evaluation as many cases of side effects and drug-drug interactions are being reported that may be due to contaminations and adjuvants. Therefore, international quality, safety, and efficacy need priority in CAM-drug regulation. However, the major concerns of the developed nation are to get the safer medicine while the cost and access are main concerns in the developing countries. Hence, we need customized local regulatory policies so that more acceptable, affordable and safe medicine can be delivered to the public especially in rural areas where health-care infrastructures are limited and distant.

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