

Utility of ethnopharmacology and ethnomedicine in ayurveda

Shital Ghorband^{*}, Dhulappa Mehatre^{**}, Narayan Jadhav^{***}

^{*}PGS, ^{**}Reader and HOD Department of Dravyaguna N. K. Jabshetty Ayurvedic Medical College and P. G. Center, Bidar, Karnataka, INDIA.

^{***}Professor and HOD, Department of Rognidan and Vikrutivigyan, Dhanvantri Ayurved Medical College, Udgir Dist. Latur, Maharashtra, INDIA.

Email: vdshitaldg@gmail.com

Abstract

with the isolation of quinine an ancient herbal drug was transformed into chemical drug. This was the inspiration for new scientific discipline—Ethnopharmacology. Which may be defined as a multidisciplinary study of biologically used in traditional medicine. It may be plants, Animals, fungi, microorganisms, minerals and these components are called as Ethnomedicine. As per WHO report about three quarters of the world's population currently use herbs and other EMs to treat diseases. Now a days people have more faith towards EMs than modern medicine prime most reason for acceptance of it are Accessibility, Associability, Affordability in developing countries. Ayurveda is the Indian Traditional Medicinal System in which EMs are tools for treatment. Here we made an attempt to compile the literature pertaining to ethnopharmacology and EMs. Which may be helpful for 'Globalisation of local knowledge and localisation of Global technologies.' It may promote use of traditional medicine globally and people can consciously choose Ayurvedic medicine as an alternative to mainstream medicine.

Key Words: Ethnopharmacology, Ethnomedicine, Ayurveda.

*Address for Correspondence:

Dr. Shital Ghorband, PGS, Department of Dravyaguna N. K. Jabshetty Ayurvedic Medical College and P. G. Center, Bidar, Karnataka, INDIA.

Email: vdshitaldg@gmail.com

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INTRODUCTION

Ethnopharmacology is the multidisciplinary study of biologically active agents used in different ethnic groups or in traditional medicine to treat the diseases. The concept of ethnopharmacology starts with the isolation of Quinine from Cinchona in 1820. By this isolation process herbal crude drug was transformed into a chemical drug. This was the Beginning point of new scientific discipline in pharmacology. The biologically active agents which are used in ethnopharmacology are known as ethnomedicine. Now a days people have more faith towards ethnomedicine than modern medicines. The

prime most reason for acceptance of ethnomedicine are accessibility, associability, and affordability in developing countries. As per WHO report nearly three quarters of world's population rely on the herbal and other ethnomedicine. This report suggest importance and scope for ethnopharmacology. Worldwide so many traditional medicinal systems are exist among them India and China has deep rooted and proven traditional medicinal systems. *Ayurveda*, *Sidhha*, *Unani* these three are practiced in India since long time. Among them *Ayurveda* is the oldest and scientifically elaborated science. It explains about how one can lead healthy and long life. Ayurveda explains to fallow daily regimen and ritual regimen to achieve long and healthy life. Treatment of diseases is the secondary aim of this system. The elements which comes under ethnomedicine i.e. plants, Animals, fungi, microorganisms, minerals either in form of diet or medicine are very nicely explained in Ayurveda. Here in this article we made an effort to compile the literature pertaining to ethnopharmacology, ethnomedicine and *Ayurveda*. Which may be helpful for 'Globalisation of local knowledge and localization of Global technologies'.

MATERIALS AND METHODS

Review of literature pertaining to ethnopharmacology and ethnomedicine. Review of Classical texts of *Ayurveda*. What is Ethnopharmacology and Ethnomedicine? Ethnopharmacology is the multidisciplinary field comprising several aspects of drug development starts with choosing ethnic medicine, find out leads from nature mostly herbs and other natural products, establishment of target compound etc. It is the holistic science which draws our attention towards, the health and healing are culturally constructed but socially negotiated. Now people getting awareness to words culturally constructed health. And trying to get health through ethnopharmacology. As ethnopharmacology has multidisciplinary approach it has several components as

- Anthropology
- Ethnobotany
- Ethnochemistry
- System biology
- Pharmacognosy
- Pharmacology
- Ethnomedicine
- Plantmetabolimics
- Phytoinformatics
- Synergism
- Scientific validation
- Herbal pharmacovigilance, etc.

Ethnomedicine: Ethnomedicine are an integral components which are used in alternative healthcare systems to treat the diseases and to maintain the health. They may be Plants, animals, minerals, fungi or microorganisms. Generally ethnomedicine are understand as herbal products. Food articles also considered as Ethnomedicine.

Field of ethnopharmacology and ethnomedicine: Ethnopharmacology is the multidisciplinary sector which has holistic approach. It is new field to search a lead molecule from nature. The journey of this field starts from common people to expertise technicians. The field of ethnopharmacological research roughly listed as follows

1. Documentation of indigenous medical knowledge.
2. Scientific study of these drugs and regions where they are using.
3. Chemo profiling, development of new analytical techniques for QC and standardization.
4. Search for pharmacologically unique principle from indigenous remedies
5. Lead findings for better health
6. Provide common platforms to researcher, health care practitioners and local people who uses ethnic remedies.

7. Drug discovery and development from ethnomedicine
8. Globalization of ethnomedicine for health care practice world wide
9. Investigations for safety, efficacy and quality of them.
10. Plant metabolic approach for the target compound analysis and secondary metabolite fingerprinting
11. Establishment of molecular mechanisms and drug interactions.

This list may be not complete but it gives gross idea about field of ethnopharmacology.

Need of ethnopharmacology and ethnomedicine: The life style is changing day by day hence disease pattern too. Ethnomedicine are ray of hope for maintenance of better quality of life. Ethnopharmacological knowledge can be utilized to enhance the status of human health in society. To ensure this wellness evaluation, validation and documentation of the ethnopharmacological knowledge about natural products is necessary. Ethnopharmacology focuses on local communities which are using ethnomedicine mostly these communities are resides in tribal areas. It also focuses on commercial applications of ethnomedicine. This approach directly or indirectly supports nation's cultural and economical development. Scientific validation of indigenous drugs is need for modern societies at large scale for increase sustainability of local healthcare practices. Ethnomedicine offer promising alternatives for chronic and infectious diseases, aging problems and immunomodulatory diseases. As these diseases are challenges for modern era to sustain healthy life. Ethnopharmacopias are non statistical cultural data which is constructed by belief and community knowledge system. It needs to re - evaluate and revalidate in modern sciences by modern technologies. Globalization of this field accelerate the interchange between local and global Pharmacopoeias via international trade, T.V, social media, web and print media. Ethically it should not matter whether the medicine is approved or it is dietary supplement, or photo pharmaceutical or ethnomedicine when human health is at stake. When health is the prime issues then mankind need holistic approach towards it and ethnopharmacology provides this approach. Demands of ethnomedicine are rising day by day due to several benefits in health sector. As per WHO three quarters of the world's population uses herbal and other ethnomedicine to treat the diseases. As ethnomedicines are most accessible, effective and affordable in developing countries. *Ayurveda* the Indian traditional medicinal systems has most noticeable expressions of substitute medication,

This practiced throughout the world. will prove new ray for development of ethnomedicines.

Ayurveda the most perfect Life science

हिताहितं सुखं दुःखमायुस्तस्य हिताहितं।

मानं च तच्च यत्रोक्तमायुर्वेदः स उच्यते।। चसु 1/41

Literary meaning of this shloka is the good or bad adaptation for human beings and Ayurveda is the only health science which explain the logic of living healthy and achieve the Divine knowledge.

Main aim of this system is

स्वस्थस्य स्वास्थ्यरक्षणं। आतुरस्य विकारप्रश्मनं।। चरकसंहिता

Restoration of the health of healthy i.e. preventive aspect and then treatment of the diseases of diseased person, i.e. Curative aspect.

According to the WHO health means,

‘Health is a state of complete physical, mental and social well being and not merely absence of diseases or infirmity.’

समदोषः समग्निश्च समधातुमलक्रियाः।

प्रसन्न आत्मा इन्द्रियमनः स्वस्थ इति अभिधीयते।। सुश्रुतसंहिता
Before 1000BC Acharya sushruta quoted this definition of health which is more relevant in this era too. Along with physical, mental, social, health or equilibrium sushruta added Spirituality too.

Now WHO also considering to add spiritual equilibrium in definition of health. It supports the scientific and holiastic approach of Ayurveda.

There are so many evidences found in Ayurveda by which we can easily understand use of ethnopharmacology in this life science.

Acaraya Charka quoted that

अनेनोपदेशेन नानौषधिभूतं जगति किंचितदृव्यमुपलभ्यते

तां तां युक्तिमार्थं च तं तं अभीप्रत्ये।। चरकसंहिता

The whatever substance found in universe have medicinal property, only thing is it should be used with rationality. How this rationality will applied is described in following shloka.

योगदपि विषं तीक्ष्णं उत्तमं भेषजं भवेत्।

भेषजं चापि दुर्युक्तं तीक्ष्णं सम्पद्यते विषं।। चरकसंहिता

When poisonous substance used with rational manner it acts as medicine, and medicine used in irrational way it will act as poison and will prove harmful to health.

The sarvdarvyampanchboutikam may considered as ethnomedicine and the way how to use them can be correlated with ethnopharmacology.

CONCLUSION

Ayurveda and ethnopharmacology together will contribute to ‘Globalization of local knowledge and localization of Global technologies’.

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