

International Journal of Research in AYUSH and Pharmaceutical Sciences

Review Article

ROLE OF AYURVEDA IN PUBLIC HEALTH: A CRITICAL REVIEW

Manglakant Jha^{1*}, Mithilesh Kumar Sah², Prashant Kumar Singh³, Atul Kumar⁴

¹Assistant Professor, Campus Chief and Head, Department of Kayachikitsa, Central Ayurveda Campus, Institute of Ayurveda, Nepal Sanskrit University, Dang, Nepal.

²Assistant Professor and Head, Department of Sanskrit Samhita Siddhanta, Ayurveda Campus, Institute of Medicine, Tribhuvan University, Kathmandu, Nepal.

³Teaching Assistant, Department of Rasa Shastra and Bhaisajya Kalpana, Ayurveda Campus, Institute of Medicine, Tribhuvan University, Kathmandu, Nepal.

⁴PG Scholar, Department of Public Health and Community Medicine, Central University of Kerala, Kasargod, India.

ARTICLE INFO

Article history:

Received: 02-02-2022

Revised: 20-02-2022

Accepted: 05-03-2022

Published: 12-03-2022

Keywords: Ayurveda, Public Health, Longevity, Health Promotion.

ABSTRACT

The healthcare system in India and Nepal has various indigenous systems like Ayurveda, Yoga, naturopathy, Siddha, Unani, and Homeopathy, which are widely accepted and practiced parallel to allopathy. In both countries, a large section of the population belonging to different strata of society practices these traditional medicine systems to improve their health. Being an ancient holistic system of medicine, Ayurveda deals with each individual and at the community level in its entirety. The social impact of ill health is increasing, with some diseases affecting the health of individuals and that of a nation's economy with their increasing healthcare costs. The Ayurvedic system of medicine has its advantages: it also fulfills the social health demands. One of the most vital and unique aspects of Ayurvedic medicine is Swastavritta, or health promotion. Ayurveda emphasizes two points, i.e., how to keep a healthy person healthy & how to prevent the patient's illness, and public health also has similar objectives to prevent diseases, cure diseases, and longevity by improving the quality of life of the individuals. Many theories related to public health, such as infectious diseases, immunity, nutrition, etc., have been described in the classical texts of Ayurveda. Various texts associated with Ayurveda, relevant modern medical science books, research/review articles, and websites have been used as source materials for this study. The aim of Ayurveda and Public Health is mainly the same. In this growing world, most diseases are related to daily lifestyle, and these diseases can be prevented by following the principles of Ayurveda, and if anyone suffers from an illness, then Ayurveda will also help get rid of these diseases. Ayurveda has the potential to improve the worsening global health status, and it also would be one of the best options to promote public health.

INTRODUCTION

The healthcare system in India and Nepal has various indigenous systems like Ayurveda, Yoga, naturopathy, Siddha, Unani, and Homeopathy, which are widely accepted and practiced parallel to allopathy.

The social impact of ill health is increasing, with some diseases affecting not only the health of individuals due to out-of-pocket expenditure but also that of a nation's economy with their increasing healthcare costs. The health of a country greatly depends upon the health of its population. This is why the constitution has also given health a vital right. Ayurveda is believed to be the oldest practice of medical science in human civilization. It is more clearly the science of life as it transcends the treatment of disease and embraces a wide array of principles and practices that deal with each

Access this article online	
Quick Response Code	https://doi.org/10.47070/ijraps.v5i12.123
	Published by Mahadev Publications (Regd.) publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)

individual. Postulations proposed by Ayurveda elites are of everlasting relevance, and it holds good value even today. Some of the modern concepts can be understood by the same age-old principles and practices of Ayurveda. It primarily emphasizes these two points, i.e., how to keep a healthy person healthy and how to prevent, eliminate, or eradicate the illness of the individuals, with public health also having the same objective to prevent diseases, cure diseases, and longevity by improving the quality of life of individuals^{1,2}.

In Ayurveda, the body constitutes *Dosha* (Humour), *Dhatu* (Tissues), and *Mala* (Faeces). If *Dosha* (Humour), *Dhatu* (Tissues), and *Mala* (Faeces) is imbalanced, then the individual gets sick. Many ideologies have been defined in Ayurveda, such as *Tridosha*, *Sapta Dhatu*, *Mal*, *Panchamahabhuta* (Five elements), *Guna* (Quality), *Rasa* (Taste), *Prakriti* (Constitution), *Agni* (Gastric fire), *Srotas* (Channels), and its personalized approach to *Nidan* (Etiology), *Chikitsa*, *Rasayan* (Macrobiotics/Life lengthening drugs)³, and *Yoga*. If an individual follows these ideologies in routine life, that individual can attain a healthy life. With modern science, we can only achieve some relief from diseases, but with Ayurveda, we can also evade illness; if we get any disease, then we can get rid of it, Ayurveda has an essential role in Public Health⁴, and it is necessary to bring public health as an equal or a stream of mainly community medicine. General principles will be fundamental. In classical texts of Ayurveda, many regulations related to public health, such as infectious diseases, immunity, nutrition, etc., are described, but the article is limited to the concept of Public Health and Health in brief.

MATERIALS AND METHODS

Various texts related to Ayurveda, relevant modern medical science books, research/review articles, and websites have been used as source materials for this study.

AYURVEDA AND PUBLIC HEALTH

World Health Organization defines health as complete physical, mental, and social well-being and not merely an absence of disease or infirmity⁵. This definition describes the three dimensions of health, physical, mental, and social. It stands with a comprehensive description of health and rules out the mere absence of disease. According to Ayurveda, a state of balanced *Dhatu* (tissue system), *Dosha*, *Agni* (enzymes and metabolites), *Malakriya* (a form of excretory functions), and *Prasanna* (ecstasy), *Indriya* (senses), *Aatma* (Soul), and *Mana* (Mind) are called *Swastha*⁶. While comparing these definitions, It is found that both the illustrations have a similar

meaning. Ayurveda describes three different types of *Doshas*, namely *Vata*, *Pitta*, and *Kapha*. Each of these *Doshas* is further divided into five classes. Sometimes *Vata*, due to some of its properties, is compared with the nervous system, *Pitta* with the Gastrointestinal system, and specifically with gastric enzymes & the metabolites. *Kapha* is compared with other fluids such as phlegm and synovial fluid. Ayurveda also describes seven different types of *dhatu*, namely *Rasa*, *Rakta*, *Mamsa*, *Meda*, *Asthi*, *Majja*, and *Shukra*. Each *Dhatu* originates from a previous *Dhatu*. For example, *Meda* is fabricated of *Mamsa*, *Mamsa* is fabricated of *Rakta*, *Rakta* is fabricated of *Rasa*, etc. The territories of *Rasa*, *Rakta*, *Mamsa*, *Meda*, *Asthi*, *Majja*, and *Shukra* are ruled by *Vata*, *Pitta*, and *Kapha*. Hereafter, the body continues to function and help perform daily life activities. *Malas* are Waste products (by-products of our daily activities). Ayurveda is based on the *Dosh-Dhatu-Mala* concept. *Doshas* are body elements that perform body functions. The body comprises seven *Dhatu*s, and *Malas* are the body's waste products. If all of these work well, it results in good health. If anything gets imbalanced in this chain of activity, then it results in sickness.

Public Health is defined as "the science and art of preventing diseases, prolonging life, and promoting health and efficiency through organized community effort⁷." The definition underlines three significant features, (i) prevention of disease, (ii) prolongation of life, and (iii) promotion of health. Proponents of Ayurveda have also highlighted these features. The objective of public health is similarly described in Ayurveda's aim^{8,17}. Two aims are mainly focused on in Ayurveda; one is the fortification of the health of a healthy individual, and the second is the elimination of the disease⁹. Therefore, Ayurveda underlines the protection of the health of a healthy individual, which means that if a person is healthy, their health is ensured.

For this purpose, ancient texts of Ayurveda advocate numerous lifestyle interventions. *Dinacharya* (Daily health promotional activities) and *Ritucharya* (Health promotional activities during the specific season), *Ahara* (Specific dietary regimen), *Pathya* (wholesome diet), *Apathya* (Unwholesome diet), etc. are Some of the modalities of this concept. Many of these modalities stated above are the health promotion strategies of the present day. The second part of the aim of Ayurveda describes curative health, which means a mitigation of disease. But if we look at various therapeutic regimens described in the classical texts of Ayurveda, all of those justify three levels of prevention such as primary, secondary, and tertiary prevention. The primary prevention

emphasizes health promotion and specific protection, which can be achieved by above said modalities; secondary prevention emphasizes early diagnosis, and various methods of diagnosis can achieve treatment. Such as *Darshana* (inspection), *Sparshana* (palpation), *Prashna* (interrogation), *Dashvidh Pareeksha*, etc., and treatment tools such *Shaman* (alleviation) and *Sodhana* (purification); tertiary prevention emphasizes disease modification and disability limitation, which can also be achieved by the help of various treatment modalities such as *Shaman Chikitsa*, *Shodhan Chikitsa*, *Panchakarma chikitsa*, etc. The concept of "ayu" or age is not just the No of an individual's life span, the word 'Ayu' has a tremendous and beautiful classification in Sukhayu, Dukhayu, Hitayu, Ahitayu^{10,19}. The principles and practices of Ayurveda justify and show the similarities with the principles and practices of public health.

DISCUSSION

The present article emphasizes two crucial concepts²⁰, Achieving the concept of public health through Ayurveda. In Ayurveda, when we try to understand the concept of public health, we should also understand health. This article does not describe in detail all the principles designated in Ayurveda under the giant sunshade of public health. This study intentionally limits its scope to briefly a straightforward concept of general Health and health. On the other hand, it tries to make as much information as needed to understand these concepts. We can know from the above study that the aim of Public Health and Ayurveda is mainly the same. Image of Public Health in Ayurveda by CEA Winslow in 1920 defined Public Health as "the science and art of preventing diseases, prolonging life, and promoting health and efficiency through organized community efforts..."²¹ In today's era, the disease is primarily related to lifestyle disorders, and we can avoid these diseases by following the principles of Ayurveda, and if we suffer from an illness, then we can get rid of these diseases through Ayurveda treatment. The sources of income of today's person have also been reduced, and there is a significant expenditure on health services, but using Ayurveda, we can save it.

Strength of Ayurveda to offer to the public in developed countries: Total Health care, Lifestyle consultation, Psychological consultation, Spiritual way of life, Rejuvenation (*Rasayana*) therapy, Panchakarma therapy which rejuvenates biological systems of the body, Management of lifestyle/NCD disorders, Management of chronic and incurable diseases, management of adverse and toxic effects of drugs¹¹.

Requirements of developed countries: Reducing the cost of Health care in developed countries, Management of lifestyle disorders, Management of chronic and incurable diseases, Non-availability of management of iatrogenic conditions, adverse and toxic effects of drugs, Requirement of the safe, cost-effective, and holistic medical system.

Ayurveda is widely used in India and Nepal as a primary health care system and flourishing worldwide in health promotion. Ayurveda is intent on making a happy, healthy, and peaceful society. Especially the simple regimens described in ancient classical texts are of immense use in handling public health problems faced by the present world today. Swastavritta is personal hygiene; it consists of dinacharya (daily routine) and includes tooth brushing, mouth wash, tongue scraping, bathing, exercising, eating, sleeping, etc. Ritucharya is the regimen and diet to be followed in the different seasons of the year. *Sadvritta* is an orbit of social behavior and conduct of the individual based on religious rituals and practices. Rasayana and vajeekarana use rejuvenating agents to prevent aging; they impart longevity, immunity against disease, and improve mental faculties. Secondary prevention emphasizes early diagnosis and treatment, which can be achieved by various modalities of diagnosis such as *Nadi pariksha* (examination of pulse), *Darshana* (inspection), *Sparshana* (palpation), and *Prashna* (interrogation), etc., and treatment modalities such *Shaman* (alleviation) & *Shodhana* (purification)¹². *Yoga* is an atomistic science that embraces physical, moral, social, mental, and spiritual well-being. According to Ayurveda, diseases manifest due to imbalances (attributed to stress) in this healthy state of body and mind. Ayurvedic treatment modalities are directed toward correcting this imbalance and enhancing digestion, and eliminating toxins from the body. It follows an integrated approach to the prevention and treatment of illness and tries to maintain or re-establish harmony between the mind, body, and forces of nature¹³. In Ayurvedic literature, Vagabhata and Sharangadhar emphasized this. Progressive deterioration of bodily features decade-wise, thereby setting milestones of aging. Nowadays, we see no discipline maintained by the people due to their job patterns or busy schedules. People are gaining better but unfitted to preserve health and self-satisfaction.

The only way to become gratified is that healthy Dincharya should be followed. Our stressful and busy daily routine is necessary to bring radical change in body, mind, and consciousness. *Dincharya* helps balance one's constitution (*Vata*, *Pitta*, and *Kapha*). It also determines and regularizes a person's biological

clock, aids digestion, absorption, and assimilation, and generates self-esteem, discipline, peace, happiness, and longevity. *Dincharya* is the collective information of all the practices promoting health and preventing disease that the ancient sages followed. Ayurveda concerns chiefly with longevity, whose notion is limited solely to long-lasting life, but it circumscribes all the conditions to live in health and vitality to carry out a healthy death, meaning the final natural experience of the cycle of life. Thus, in Ayurveda, the concept of public health, even encompassing all ages, focuses fundamentally on the individual capability of healthy aging intended to complete fulfilling one's life¹⁴.

Ayurveda recommends many therapies also for maintaining our mental, physical and spiritual health. Ancient techniques, therapeutics (*Rasayana*), *Panchakarma*, and *Yoga* are being accepted to accomplish the following goals of treatment.

1. Strengthen the immune system.
2. Efficient detoxification system.
3. Responsive inflammatory system.
4. Optimal metabolic system.
5. Balanced regulatory system.
6. Enhanced regenerative system.
7. Harmonize the life force.
8. Free radical scavenging or anti-oxidant

➤ Noble contribution of Ayurveda to modern-day health scenario¹⁵:

In this era of lifestyle disorders, Panchakarma and Rasayana therapy is the only hope for health care; WHO has accepted the same from traditional medicines.

- **In preventing the diseases** - Metabolic, genetic disorders, allergic, autoimmune diseases, Seasonal variations, Aging / Geriatric.
- **Alternative therapy**- Allergic disorders, autoimmune disorders, Rheumatoid arthritis & other collagen disorders, Parkinson's disease, Alzheimer's disease, Skin disorders, Gastrointestinal disorders.
- **Complementary area of cooperation** - Cancer, DM, IHD, CVA, Iatrogenic disorders, Br Asthma, Neuromuscular disorders, Psychosomatic diseases - Ulcerative colitis, IBS, Psychological disorders - Stress syndromes, Anxiety neurosis, Sleep disturbances, MSD, Joint Disorders and many more.

CHALLENGES¹⁶

The major challenge ahead of health promotion by Ayurveda is to produce competent Ayurvedic medical practitioners; perhaps the existing system has not been entirely successful in building confidence among Ayurveda graduates for practicing pure Ayurveda. There may be several motives attributing

to this, including students' inability to understand basic principles and concepts of Ayurveda practice, improper infra-structure in Ayurveda institutions, unskilled teachers, etc. Another significant provocation is the lack of adequate practical exposure in clinical practice. Several other factors might contribute to such issues & discrepancies, for example,

- Lack of standardization and quality control of the herbal drugs used in clinical trials and different dosages of herbal medicines.
- Inadequate randomization in most studies, and patient's batch not adequately selected. The number of patients in most trials is inadequate for attaining statistical significance
- Difficulty in establishing suitable placebos because of the taste and aroma etc.
- Wide disparity in the duration of treatments using herbal medicines.
- Inappropriate, en-effective, unresponsive educational system
- Halfhearted Government support
- Substandard condition of Ayurvedic teaching Institutions
- Poor status of Government-run Ayurvedic Institutions
- Loss of faith of Ayurvedic physicians in their system
- Misconception among the public regarding the delayed effect of Ayurvedic drugs.

CONCLUSION

Public health is gaining momentum all over, and it is a good sign for traditional medical systems like Ayurveda to get their place to fulfill the need of the day. Public health is mainly seen as a part of or similar to community medicine. The ancient Ayurveda texts also describe certain principles of public health in their ways. Many theories related to public health, such as infectious diseases, immunity, nutrition, etc., have been described in the classical texts of Ayurveda which are widespread public health issues, but the present document focuses on public health and health in brief. Ayurveda is the most critical choice for personal health, well-being, and public health.

REFERENCES

1. Neha Sharma et al. (2021) 'Role Of Ayurveda In Public Health,' International Journal of Current Advanced Research, 10(12), pp. 25627-25629. DOI:<http://dx.doi.org/10.24327/ijcar.2021.25629.5117>
2. Winslow, Charles-Edward Amory (1920). "The Untilled Field of Public Health" Modern Medicine. 2

- (1306):183191.Bibcode:1920Sci....51...23Whttps://en.wikipedia.org/wiki/Doi_(identifier) DOI:10.1126/science.51.1306.23. PMID 17838891.
3. Bhusan Patwardhan- Ayurveda for all: 11 action points for 2011. J Ayurveda Integr Med. 2010 Oct-Dec; 1(4): 237- 239. 2. Bhusan Patwardhan- Ayurveda for all: 11 action points for 2011. J Ayurveda Integr Med. 2010 Oct-Dec; 1(4): 237-239.
 4. Suresh Kumar, et al., An Ayurvedic Approach To Public Health, IRJAY, June: 2020 Vol- 3, Issue-8;1-7, <https://doi.org/10.47223/IRJAY.2020.3803>.
 5. World Health Organization (1958). The first ten years of the World Health Organization. Geneva: WHO.
 6. Acharya Yadavji Trikam Ji, Sushrut, Sushruta Samhita, Dalhana Tika, Varanasi, edited Reprint 1992, Chaukhambha Orientalia, Sutras 15/48.
 7. Winslow CEA. The untitled field of public health. Mod Med; 1920; 2:183-191.
 8. Acharya Yadavji Trikam Ji, Agnivesh, Charak Samhita, Varanasi, edited Reprint 2000, Chaukhambha Surbharti, Sutras 30/26.
 9. Acharya Yadavji Trikam ji Acharya YT, editor. Charaka Samhita. Varanasi: Chowkhamba Surbharati; 2000. (Charak, Sutras 30/26) Agnivesh, Charak Samhita, edited, Reprint 2000, Chaukhambha Surbharti, Varanasi, Sutras 30/26.
 10. Shri Satya Narayan Shastri (Part 1) Charak Samhita with elaborated Vidhyotini Hindi commentary Sutra Sthana Arthedash Mahamooliya Adhyaya; chapter 30, verse 23; Varanasi Chukhambha Bharty academy 2014. P 586.
 11. Dr. Dhanraj Nagar, et al., Role of Ayurveda In Public Health: A Review Article, WJPR, August: 2019 Vol 8, Issue 9, 649-653, DOI: 10.20959/wjpr20199-15569.
 12. Janmejaya et al.: The Concept Of Public Health In Ayurveda, IAMJ: Volume 1; Issue 2; March - April 2013 1.00 pm.
 13. https://apha.confex.com/apha/134am/techprogram/paper_133135.htm, accessed date: 1st March 2019. 2.40pm
 14. Eriksson M, Lindstrom B. Antonovsky's sense of coherence scale and its relation with quality of life: a systematic review. J Epidemiol Community Health. 2007; 61(11):938-44. DOI: 10.1136/jech.2006.056028
 15. Prof.M.S.Baghel- Ayurveda India-global scenario. ppt visited on December 13, 2018.
 16. Alisha, Singh NR, Jitendra V. Role of Ayurveda in Public Health: Compass and Challenges. J Ayu Herb Med 2019;5(1):28-30
 17. Shri Satya Narayan Shastri (Part 1) Charak Samhita with elaborated Vidhyotini Hindi commentary Sutra Sthana Arthedash Mahamooliya Adhyaya; chapter 30, verse 26; Varanasi Chukhambha Bharty academy, 2014; 587.
 18. Kaviraj Ambika Dutta Shastri Susrut Samhita (Part I) edited with Ayurved Tattva Sandeepika Hindi commentary Scientific analysis, Sutra Sthan Dosh Dhatu Mal Kshay Vridhi Vigyaniy Adhyaya; chapter 15 verse 48; Varanasi Chukhambha Sanskrit Sansthan, Reprint ed., 2014; 84.
 19. Shri Satya Narayan Shastri (Part 1) Charak Samhita with elaborated Vidhyotini Hindi commentary Sutra Sthana Arthedash Mahamooliya Adhyaya; chapter 30, verse 23; Varanasi Chukhambha Bharty academy 2014. P 586.
 20. Shri Satya Narayan Shastri (Part 1) Charak Samhita with elaborated Vidhyotini Hindi commentary Sutra Sthana Arthedash Mahamooliya Adhyaya; chapter 30, verse 24; Varanasi Chukhambha Bharty academy, 2014; 586.
 21. Winslow CEA. The untitled field of public health. Mod Med; 1920; 2: 183-191. Allport GW. The historical background of modern social psychology. Handbook of Social Psychology, 1968; 1-80.

Cite this article as:

Manglakant Jha, Mithilesh Kumar Sah, Prashant Kumar Singh, Atul Kumar. Role of Ayurveda in Public Health: A Critical Review. International Journal of Research in AYUSH and Pharmaceutical Sciences, 2021;5(12):595-599.

<https://doi.org/10.47070/ijraps.v5i12.123>

Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**

Dr. Manglakant Jha

Assistant Professor,
Campus Chief and Head,
Department of Kayachikitsa,
Central Ayurveda Campus,
Institute of Ayurveda, Nepal
Sanskrit University, Dang, Nepal.

Email: drmkjhaayu@gmail.com

Disclaimer: IJRAPS is solely owned by Mahadev Publications - A non-profit publications, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJRAPS cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJRAPS editor or editorial board members.