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Comparative Survey for The Choice of Treatment Like Ayurvedic, Homeopathic, and Allopathic by The People



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ABSTRACT

World over, the general opinion is tilting towards the use of herbal drugs. The gradual rise in the trade of these drugs stands testimony to this. Common reasons for this tilt are frustrating side effects and lack of curative value in modern medicines. Traditional systems rely heavily on herbal materials compared to the modern system of medicine (allopathic). The present study judges awareness/knowledge of the common man regarding traditional systems (Ayurvedic & Homeopathic) and the overall preference of system as well as the preference of system in case of common ailments and medical emergency. The study also evaluates their views regarding the role of pharmacists and the government in promoting the use of these drugs. The responses (303) obtained on the questionnaire sheet have been presented as Bar charts, Pie charts, and Tabular form depending upon the type of response along with general conclusions and suggestions.

INTRODUCTION

Different major systems for disease or disorder in use:

- A. Allopathy (Modern system of medicine)
- B. Ayurveda
- C. Homeopathy

ALLOPATHY (Modern system of medicine)

Allopathic medicines or allopathy refers to science-based, modern medicines. The term allopathy is large of historic interest and was used in the 19th century to differentiate itself from homeopathy which was widely practiced at that time. The word "allopathic" came from the Greek words "allos" meaning "opposite" and "pathos" meaning "to suffer". This word was coined by German physician Samuel Hahnemann in the 1800s. It's a health system in which medical doctors, nurses, pharmacists, and other healthcare professionals are licensed to practice and treat symptoms and diseases⁽¹⁾. Allopathy therapy is 100 years old and the most suitable medicine therapy. Starting from Greek medicinal therapy, it consists of the relationship between cells, tissues, and organs. Allopathic therapy focuses on diagnosis and treatment, a cure for severe illnesses via drugs, radiation, and surgery⁽²⁾. Allopathic medicines (sometimes referred to as orthodox medicine or conventional medicine) are considered medicines that work. This field of medicine is active in coping with as well challenging core concepts ingrained in minds of major populations in general and physicians in particular. The allopathy, which is more recent in its origin than its counterpart, deeply believes that advances in understanding disease could only come from a detailed correlation of symptoms and signs of the sick patient on the ward and the findings at autopsy. In allopathy, the studies and outcomes of studies are purely empirical⁽³⁾.

A. AYURVEDA

Ayurveda is the natural system of medicines, originated in India more than 3,000 years ago. Ayurvedic medicine ("Ayurveda" for short) is one of the world's oldest holistic ("wholebody") healing systems. The term Ayurveda is derived from the Sanskrit words Ayur (life) and Veda (science or knowledge). Ayurveda has an old history since the 2nd Century BC. Ayurveda has its foundations laid by the ancient schools of Hindu Philosophical teachings named Vaisheshika and the school of logically named Nyaya. The school of Vaisheshika

classifies the attributes of any object into six types: substance, particularity, activity, generality, inherence, and quality called Dravya, Vishesha, Karma, Samanya, Samavaya, and Guna respectively in the Sanskrit language. Ayurveda believes that the entire universe is composed of five elements: Vayu (Air), Jala (Water), Aakash (Space or ether), Prithvi (Earth), and Teja (Fire)⁽⁴⁾. Ayurveda is the most dominant system amongst the other Indian systems of medicine and finds its prevalence globally for centuries. Ayurveda developed significantly during the Vedic period and later some of the non-Vedic systems such as Buddhism and Jainism also developed medical concepts and practices that appear in the classical Ayurveda texts⁽⁵⁾.

B. HOMEOPATHY

Homeopathy is a highly systematized method of medical therapeutics and clinical evaluation. The term homeopathy is derived from the Greek words homes, meaning "similar," and pathos, meaning "suffering." The medicines used in this system of therapeutics are chosen according to the Law of Similars (the concept of "like curing like"), a fundamental homeopathic principle based on the observed relationship between a medicine's ability to produce a specific constellation of signs and symptoms in a healthy individual and the same medicine's ability to cure a sick patient with similar signs and symptoms (6). Homeopathy is based upon the laws of "immunology" and "memory of water" and the similarities in the pharmacological aspects of the drug and the disease. It utilizes medicines that produce symptoms similar to that of the disease for treatment of the pathological condition initially by producing or aggravating the pathological conditions and then treating them. For more than a century this system is been practiced in India and has formed an integral part of the Indian traditional system of medicine. It is recognized by the government of India and there are various institutions, research centers, and regulatory bodies that help the propagation of this system ⁽⁷⁾. Homeopathy always involves long consultation/ discussion regarding all aspects of a patient's illness and life. Homeopaths consider it important to treat a subject as a whole rather than curing the signs/symptoms that cause disease. The most important being that if homeopathy is a non-effective pseudoscience then why is it that even in this modern era of science and technology a great many people are favoring homeopathy⁽⁷⁾. Homeopathic remedies are prepared ('potentized' or 'dynamized') in steps of alternately diluting and succussing a homeopathic stock (8).

TYPE OF MATERIALS USED IN SYSTEM

Allopathy

1. Majority of material of synthetic drug

Synthetic drugs are chemical compounds produced in a laboratory. They can be produced commercially by drug manufacturers for valid medical purposes and are diverted from legal channels or produced illegally in clandestine laboratories for illicit markets worldwide. Synthetic drugs could be addictive and pose a serious threat to the health of everyday individuals ⁽¹⁰⁾. Synthetic drugs address symptoms caused by specific diseases as understood by scientific pathology, however herbal medicine usually directs towards aiding the body's healing process. Synthetic drugs, drug interactions, and contraindications must be considered on an individual basis and same as synthetic drugs, the herb consumption usually need to be discontinued if adverse reactions took place⁽¹¹⁾.

• Problems With Synthetic drugs

> Increasing Number of Synthetic Drug Abusers

The use of synthetic cannabinoids is increasing nowadays. According to the American Association of Poison Control Centers (AAPCC), poison control centers around the country received 7,779 calls about synthetic cannabinoids in 2015, more than doubling the number received in 2014. AAPCC received 304 calls about bath salts in 2010. This number climbed to 6,137 calls in 2011 but has declined each year since then ⁽¹²⁾. As of December 31, 2020, poison control centers have managed 1,187 calls for synthetic cannabinoid-related exposure cases. In 2015, there were 520 reported calls to poison control centers about exposure to bath salts ⁽¹³⁾.

> Easy Access for Youth

The Drug Enforcement Administration (DEA) has indicated that the primary users of these synthetic drugs are youth. This is because products are cheap and easily accessible to teenagers online or in gas stations and at convenience stores, smoke shops, and head shops. According to the 2012 and 2015 Monitoring the Future (MTF) survey of youth drug-use trends, the prevalence rates of synthetic cannabinoids use for 12th, 10th, and 8th graders were 11.4 percent, 8.8 percent, and 4.4 percent respectively in 2012⁽¹⁴⁾. As of December 2020

survey, these numbers increased to- 12th, 10th, and 8th graders are 43.7 percent, 33.3 percent, and 14.8 percent respectively which seems very dangerous ⁽¹⁵⁾. alavankunthapuramao

Biotechnology products

Biotech drugs differ from pharmaceutical drugs. In this, they use biotechnology as a means for manufacturing, which involves the manipulation of microorganisms such as bacteria or biological substances like enzymes, to perform a specific process. There are critical differences between biotechnological and the more common chemical drugs. A chemical drug is a small molecule produced by chemical synthesis with a very well-defined and stable structure, not or rarely sensitive to process changes, which is relatively stable. A biotechnological drug or a biopharmaceutical product is a large complex biomolecule with a heterogeneous structure, extremely sensitive to process changes and prepared by the use of living systems, such as organisms, tissue cultures, or cells, with the large majority manufactured using recombinant DNA technology. This means that a human gene capable of triggering the production of a specific protein is inserted into a living organism and cultured in the laboratory. The organism incorporates the gene into its cell structure and produces large quantities of the desired protein (16).

2. Natural products mainly of plant origin

Natural products will continue to be extremely important sources of medicinal agents. In addition to the natural products which have found direct medicinal application as drug entities, many others can serve as chemical models or templates for the design, synthesis, and semi-synthesis of novel substances for treating humankind's diseases⁽¹⁷⁾. The use of natural products as medicines must, of course, have presented a tremendous challenge to early humans. It is highly probable that when seeking food, early humans often consumed poisonous plants which led to vomiting, diarrhea, coma, or other toxic reactions perhaps even death. However, in this way, early humans were able to develop knowledge about edible materials and natural medicines ⁽¹⁶⁾. Natural products have a wide range of diversity of multi-dimensional chemical structures; in the meantime, the utility of natural products as biological function modifiers has also won considerable attention. Subsequently, they have been successfully employed in the discovery of new drugs and have exerted a far-reaching impact on chemicobiology ⁽¹⁸⁾.

3. Biological products such as vaccines

A biopharmaceutical, also known as a biologic(al) medical product or biologics, is any pharmaceutical drug product manufactured in. extracted from. synthesized from biological sources. Different from totally synthesized pharmaceuticals, they include vaccines, whole blood components, allergenic, somatic blood, therapies, tissues, recombinant therapeutic protein, and living medicines used in cell therapy. They are isolated from living sources like humans, animals, plants, fungi, or microbes. They can be used in both human and animal medicine (19). Biological products can be defined according to their source material and method of manufacture. The source materials and methods employed in the manufacture of biological products for human use, therefore, represent critical factors in shaping their appropriate regulatory control. Biological products are derived from cells, tissues, or microorganisms and reflect the inherent variability characteristic of living added space after materials (20).

❖ Ayurveda

1. Plant material and their extract

Approximately 90% of ayurvedic preparations are plant-based. Ayurvedic plants have a stronger action on the body than either food or spices. Such actions enable the plant to reverse pathophysiological processes and stabilize the *doshas*. For this reason, one should use such plants with caution. Classical ayurvedic preparations, made from such plants, are known as "yoga" in Sanskrit. Yogas have developed following years of practical experience combining plants to get the optimal effect ⁽²¹⁾. One or two of the plants in these combinations will be active and the others will play a supporting role. The supporting herbs will each have different actions, acting as catalysts to help proper absorption, transportation, and to reduce toxicity. If an ideal combination is delivered, then the result can be excellent, but such outcomes are based on thorough plant knowledge ⁽²²⁾.

2. Minerals substance generally in the form of Bhasma.

Ayurveda is thousands of years old holistic system of Indian medicine. Various herbs, metals, and non-metals preparations are used as medicine in Ayurveda. In the Ayurvedic description, several metallic preparations called Bhasma · In the 8th century AD the Indian alchemist Nagarjuna first introduced the use of metals and minerals like - Swarna [gold], Rajat [silver], Tamra [copper], Abhrak [mica], and Makshika [pyrites], Rasa [mercury] as a medicinal

agent. The branch of Ayurveda dealing with herbs-metallic preparation is known as Rasa Shastra(23) · Rasa Shastra is a very important branch of Ayurveda since the 8th century; however, the report of large scale randomized clinical trials involving the Bahamas are fewer. One of the reasons for this may be the fact that Rasa Shastra is well-tested science; hence, there is no need for fresh proof. However, few properly conducted clinical studies indicated that nutritional anaemia in nonpregnant adolescent girls can be improved by a daily dose of Soot Shekhar Rasa (250 mg) plus Sitopaladi Churna (400 mg). Another clinical study of Kukkutanda tweak bhasma reveals statistically significant improvement in Swetapradara, an important gynaecological disorder (24). The use of some Bhasmas is given in Table 1.

Table No. 1: Marketed Bhasmas products and their uses (Adopted from [25]).

NAME	INGREDIENTS	USED
avrattankalp amritras	Calcined ash of expensive gems,	
	minerals like ruby, sapphire,	Cancers of all types, anaemia, a
	emerald, cat's eye stone, pearl,	complication of diabetes
	coral, silver, gold, iron, zinc	
Heerak Bhasma	K //	Useful in cancers, immunity
	Diamond	disorders, crippling rheumatoid
		arthritis, bone marrow
		depression
Tsrailokya chintamaniras	Diamond, gold, silver, iron	Severe respiratory tract
		infection, marrow depression,
		ovarian cysts, uterine fibroids
Swarna basant maltiras	Gold, piper-nigrum, white pear powder	Tonsillitis, fevers, cough,
		bronchitis, decreased immunity,
		cancers, autoimmune disorders
Kamdudha ras	Ochre, Tinospora cordifolia,	Hyperacidity, headache, fever,
	mica (calcined)	blood pressure
Vasant kusumakar ras	Gold, silver, coral	Complications of diabetes,
		neuropathy, general weakness
Kumar kalian ras	Gold, iron, mica, copper pyrite,	General debility in children,
	red sulfide of mercury Gene	fever, respiratory tract infections
Tamra Bhasma	Copper, mercury, sulfur	Anemia, jaundice, digestive

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		disturbance, abdominal disorders
Loha Bhasma	Iron, cinnabar	Enlargement of liver, anemia, jaundice
Vaikrant Bhasma	Manganese, sulphur (Tourmaline)	Diabetes can be used in place of diamond ash in case of poor patients
Lok Nath ras	Mercury, sulphur, conch shell	Diarrhoea, respiratory disorders, immunity disorders, cancers, ovarian cysts
Swarna Bhasma	Ash of gold (Calcined gold)	Improves body immunity, general weakness, anaemia, energetic
Swarnmakshik Bhasma	Copper pyrite (calcined), mercury, sulphur	Anaemia, jaundice, stomatitis, chronic fever

3. Some material of animal origin (not much used nowadays)

The World Health Organization (WHO) defined that more than 80% of the world's population depends on the traditional system of medicine, which is an ancient and culture-bound medical practice that existed in human societies before the modern science of health. The animal products like hooves, skin, bones, feathers, and tusks, etc. of domestic as well as wild animals are used for curative, protective, and preventive medicine. The classical text of Ayurveda like Charaka Samhita4, Sushruta Samhita5, Ashtanga Hridaya6, and Ashtanga Sangraha has mentioned many animal products along with properties and therapeutic applications in diseases in scattered manner throughout the various chapters and parts of Samhitas^(26,27).

Homeopathy

1. Mother tincture of plant material

The first step in the preparation of homeopathic medicine from a plant or animal is the preparation of the 'mother tincture'. Mother tinctures for the production of homeopathic medicines should comply with pharmacopeia specifications and quality requirements in official use or those of other officially recognized documents. A tincture is an herbal preparation made with alcohol or distilled water and dried or fresh herbs. It is taken into the

body by mixing with tea, water, or juice. One teaspoon taken up to three times daily should be the proper dosage for any herbal tincture. A tincture is the most effective method of using herbal medicines. Raw materials for the production of homeopathic products can be either natural or synthetic. Raw materials of vegetable, animal, or human origin can be used either fresh or in dried form. Fresh plant material is macerated in ethanol to produce a mother tincture. For raw materials that are of vegetable, animal, or human origin, the mother tincture is the homeopathic stock ⁽²⁸⁾.

2. Mineral material

If minerals or chemicals are used as source materials for the manufacture of homeopathic medicines, analytical tests should be carried out to determine, to identify the source or origin; to detect possible contamination with heavy metals and any other possible toxic constituents. The purification procedure must be described. For minerals and chemicals, data must be presented on source material; appearance and description of raw materials; identity tests; purity tests; and determination of content. If these data are absent, justification must be provided. For the first dilution/trituration, details of the following are required or their absence needs to be justified (29).

- Method of preparation
- Description and characteristics
- Identity tests
- Purity tests
- Determination of the content
- Determination of toxic constituents

QUESTIONNAIRES

- 1) What type of system of medicine did you use/use for general health? If 'Other', please mention the name.
- 2) Have you ever used an ayurvedic or homeopathic system of medicine?
- 3) Which of the following system of medicine do you believe the most?

- 4) Which is the last system of medicine that you have taken? If 'Other', please mention the name.
- 5) Concerning you, which type of medicine is having low adverse drug reactions? If 'Other', please mention the name.
- 6) In recent years the allopathic medicines are used most irrespective of their adverse drug reactions, so are you also following the same kind of rule while choosing the medicines?
- 7) If you have to choose one type of medicine that includes low cost & low ADR and higher efficacy, what will you choose nowadays? If 'Other', please mention the name.
- 8) According to you, which of the following might be the reason for less use of Ayurvedic medicines?
- 9) According to you, which of the following might be the reason for less use of Homeopathic medicines? If 'Other', please mention your reason.
- 10) According to you, which of the following might be the reason for less use of Allopathic medicines? If 'Other', please mention your reason.
- 11) According to you think the change in the lifestyle is an important factor while choosing any kind of treatment you want to perceive?
- 12) Do you feel there is more awareness required to spread in case of which of the following system of medicine?
- 13) Which type of medicine you prefer/will prefer in emergency conditions? If 'Other', please mention the name.
- 14) Which type of system of medicine you preferred/will prefer for chronic health diseases like heart diseases, diabetes, cancer, etc.? If 'Other', please mention a name.
- 15) Do you prefer Ayurveda or Homeopathy as an adjunct therapy with Allopath for some specific diseases?

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OBSERVATIONS

1) Which type of system of medicine did you use/use for general health? If 'Other', please mention name. (fig no.1)

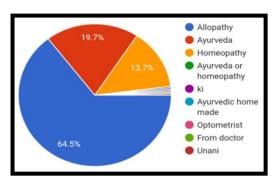


Figure No. 1:

2) Have you ever used an ayurvedic or homeopathic system of medicine? (fig no. 2)

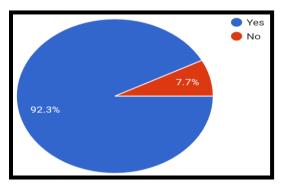


Figure No. 2:

3) Which of the following system of medicine do you believe the most? (Fig no. 3)

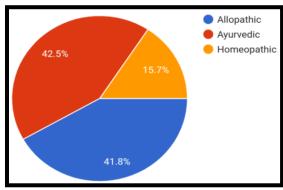


Figure No. 3:

4) What is the last system of medicine that you have taken? If 'Other', please mention the name. (Fig no. 4)

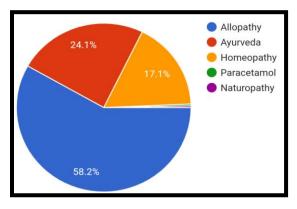


Figure No. 4:

5) For you which type of medicine is having low adverse drug reactions? If other', please mention a name. (Fig no. 5)

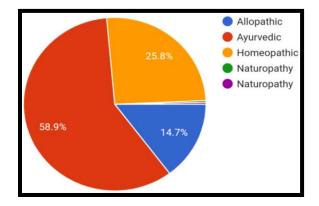


Figure No. 5:

6) In recent years the allopathic medicines are used most irrespective of their adverse drug reactions, so are you also following the same kind of rule while choosing the medicines? (fig.6)

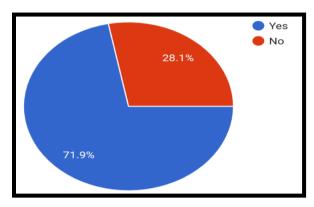


Figure No. 6:

7) If you have to choose one type of medicine that includes low cost & low ADR and higher efficacy, what will you choose nowadays? If 'Other', please mention the name. (Fig no. 7)

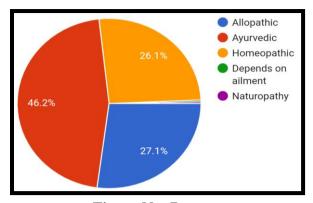


Figure No. 7:

8) According to you, which of the following might be the reason for less use of Ayurvedic medicines? (Fig no. 8)

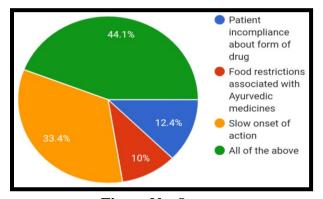


Figure No. 8:

9) According to you, which of the following might be the reason for less use of Homeopathic medicines? If 'Other', please mention your reason. (Fig no. 9)

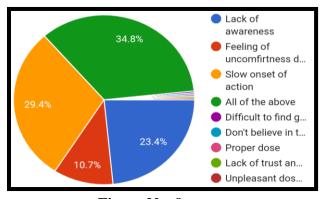


Figure No. 9:

10) According to you, which of the following might be the reason for less use of Allopathic medicines? If 'Other', please mention. (fig no.10)

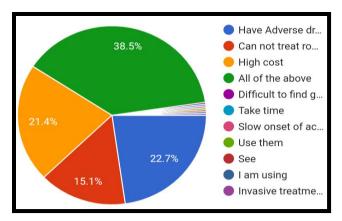


Figure No. 10:

11) Do you think a lifestyle change is an important factor while choosing any kind of treatment you want to perceive? (Fig no. 11)

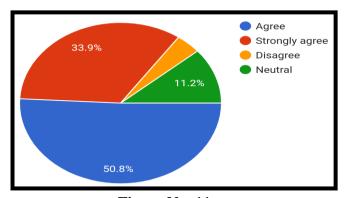


Figure No. 11:

12) Do you feel there is more awareness required to spread in case of which of the following system of medicine? (Fig no. 12)

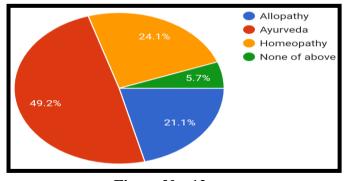


Figure No. 12:

13) Which type of medicine you prefer/will prefer in emergency conditions? If 'Other', please mention the name. (fig no. 13)

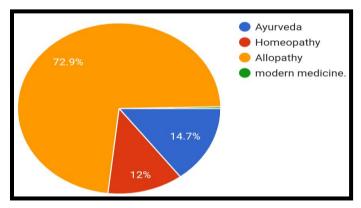


Figure No.13:

14) Which type of system of medicine you preferred/will prefer for chronic health diseases like heart diseases, diabetes, cancer, etc.? If 'Other', please mention the name. (fig no. 14)

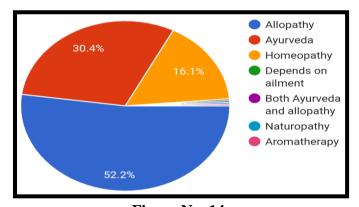


Figure No. 14:

15) Do you prefer Ayurveda or Homeopathy as an adjunct therapy with Allopathy for some specific (fig no 15)

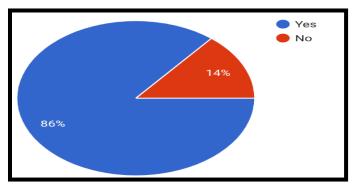


Figure No. 15:

RESULTS

According to the survey report (303 respondents), it was observed that 41.9% of the population believed in Allopathic drugs. Despite inclination towards herbal drugs, a large portion of the population up to 72.9% prefers Allopathic medicine in case of an emergency whereas 14.9% opt for Ayurvedic and 11.9% for Homeopathic system of medicine. In general public opinion, 58.4% of people experience fewer side effects in Ayurvedic, 26.1% in Homeopathy medicine, and only 14.9% in Allopathic medicine. 86.1% of human inhabitants prefer Ayurveda as well as Homeopathy. Still, 42.2% believe in Allopathy and 41.9% believe in Ayurveda medicine. According to the survey it was observed that most of the people around 58.4% who's last treatment of medicine was Allopathy. Because of the slow onset of action of Homeopathy (35.3%) and for Ayurveda 33% of people did not choose the medicine for the treatment. 48.4% of people suggested that more awareness is required for the Ayurveda. For the chronic type of health disease, 58.2% of people opted for Allopathy medicine for the treatment. 51.4% of people agreed about their lifestyle change was a turning point in their treatment.

CONCLUSION

This review summarises the prevalence of systems of medicines used, from the survey conducted globally. A small but significant percentage of the population uses an indigenous system of medicines. It has been found that lifestyle had a significant impact on curing the disease or disorders ranging from mild to chronic ones physiologically and emotionally, as, it offers integral therapeutic advantages for patients, therapists & societies. Hence, the promotive, preventive and curative strategies should be implemented by the working class and as well as others for restoring their health and well-being.

From our recent study, the general conclusions are drawn-

Globally, the population has a firm belief that the ancient system of medicines is free from adverse effects & plays a pivotal role in curing the root cause of any disorders or diseases. Although the population is inclined towards the indigenous medicine systems or commonly known as herbal medicines, Allopathic medicines are still preferred as the first treatment of choice. The gap between the health care professionals and the general population needs to be narrowed by various means of mass communication & counselling which will bring about certainty while using herbal medications. But there are some obstacles in the preference for Ayurveda & Yoga such as low availability, less accessibility, the high price of the treatment and difficulty in medication and low awareness of Ayurveda & Yoga system of medicine as compared to Allopathy. The authors are of the view that if the scope of this study is widened, by collecting a larger no of responses and the results statistically analyzed under expert supervision, then the exact liking of masses can be gauged.

The conclusions can provide the leads along which research can be pursued to provide, to masses, the drug of their liking from the system of their choice. Such a situation will pave the way to reap the benefits of all systems minus the frustrating side effects of medicines. Traditional medical knowledge is widely prevalent around the world and the larger public has integrated them for their various health needs. Their growth both in developing and developed countries, there exists a gap between public choice and national, institutional efforts for integration. Recently even developed countries, are using medicinal systems that involve the use of herbal drugs and remedies. Undoubtedly the demand for plant-derived products has increased worldwide. The demand is estimated to grow in the years to come fuelled by the growth of sales of herbal supplements and remedies. These herbal drugs and Indian medicinal plants are also rich sources of beneficial compounds including antioxidants and components that can be used in functional foods. Such a situation will pave the way to reap the benefits of all systems minus the frustrating side effects of medicines.

Therefore, the present study concludes that COVID-19 infection can be prevented by following government guidelines and opting for immune-boosting Ayurveda routes. Comparative analysis of Ayurveda and allopathic treatment strategies were carried out in the present study. Depending upon the patient's conditions and symptoms, Ayurveda is useful for the treatment of COVID-19. Allopathic treatments inhibit viral infection by targeting majorly endocytosis, and Angiotensin-Converting Enzyme (ACE) receptor signalling. In this article, we summarize different ayurvedic /Medicine-and-dentistry/homeopathy.

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