

INDIAN FOOD -A NATURAL MEDICINE

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Abstract

India is the nation of numerous appearances and this peculiarity is reflected in its ethnical food. Indian food includes a wide assortment of territorial cooking local to India. Given the scope of a wide variety in soil type, atmosphere and occupations, these cooking styles differ altogether from one another and utilize locally accessible fixings, for example, herbs, vegetables and organic products. The Indian food routine is noted for its consideration of numerous pulses spice, rice which make this food one of a kind. Being commonly low in fat and high in vegetables, leafy foods, meat, Indian food has numerous medical advantages. From the British period to this day, Indian food plays an important role in the Medical field. This study explores the connection between Indian food and health benefits. The study then looks at the links between the Indian Food, Indian medicine and Indian diet of contemporary India. The study goes on to reflect on the nation's food culture. This review also speaks about some nutritional studies that have been performed to explore different types of food consumed in various Indian regions, among different social samples. The paper ends by arguing that Indian food has high medicinal value and a high respect in the medical field.

Keywords: Indian food; health benefits; spices; popularity; food processing; food preservation.

Introduction

Food is any substance consumed by an organism to provide nutritional support [1]. Food is usually of plant or animal origin, i.e., veg or non-veg [2]. Preparation varies across the country. Indian cuisine reflects an 8,000 year history of various groups and cultures interacting with the Indian subcontinent, leading to diversity of flavours and regional cuisines found in modern-day India [3]. Later, trade with British influence added to the already diverse Indian cuisine [4]. Aryans classified food materials on the basis of their nature as sukha dhania (Cereals), Samid hanya (Pulses), Phala (fruits), Shakna (vegetables), Payovarga (milk products), Madhyavarga (alcoholic beverages), Mamasa varga (animal products) [5,6]. Indian food is excellent medicines with incredible flavors and excellent cuisines [7,8].

Preetam Sarkar, in his article explains about traditional and ayurvedic foods of Indian origin. [9]. Hannah R Vasanthi emphasises the importance of Indian spices in the medicinal role of Indian food [10]. Agilandesar .Devarajan's research provides the medical role knowledge of rasam, a Indian cuisine in Indian medicine [11,12]. Chyawanprash explains the importance of food as medicine for a healthy living [13]. A Chopra emphasises the importance of Indian food in Rasayana therapy [14]. S.K. Mukherjee and S. Soni explains the medicinal value of common / daily Indian foods like Idli and dosa [15].

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Indian food has high medicinal value for the human body . We Indians have an excellent grain based diet[16]. Indian soup, i.e Rasam soup made with different spices has high medicinal value in the world [17]. Indian food plays an important role in Ayurvedic medicines . Many Indian foods are recommended as Ayurvedic food for many health disorders [18]. The big impact in reduction in the medicinal value of Indian food is due to adulteration of food [19]. Most common accidental adulterants are pesticides, D.D.T and residues present on plant products that reflect on the food made with it [20]. This adulteration plays an important role in Indian street foods [21]. Most of the traditional Indian food is Carbohydrate rich since Indian farmers need a lot of energy in their daily work .

This study serves the purpose of revealing the hidden importance of health benefits of Indian food. This study also provides us with enough information to understand the medicinal value of Indian food. The preparation recipe of medicinally valued Indian food is not included in this article. The results obtained are based only on information provided by books in libraries and articles on the Internet. This study provides knowledge to individuals to deviate from synthetic drugs to herbal food products like chutney made from *solanum trilobatum* for conditions like fever.

This study deals with the importance of Indian food in Ayurvedic medicine. It also discusses the origin and history of Indian food. This study emphasises on the importance of medicinal role played by spices in Indian food. The study also deals with the processing and Preservation of Indian food for better medicinal value. This study also deals with the popularity of the Indian cuisine over the world. The aim of this study is to uncover the hidden importance of the health benefits of Indian food. To know the unknown medicinal value of Indian food. This study also aims at easy understanding of the importance of Indian food.

Materials and method

A protocol was established and studies were sourced from electronic databases. Screening and quality assessment was conducted by all authors. The databases including Pubmed, Google Scholar, EBSCO and SCOPUS were considered from inception of the database . In addition, we hand searched the World Wide Web, bibliographies of all included studies and Library of the institution for additional information. Around 30 articles were collected using keywords, analysed and reviewed.

Indian food and health benefits

Traditional Indian food provides enough nutrients that support the human body .Many Indian food varieties are grain based which are excellent as low carbohydrate food . Curd , An Indian food is given as a last resort in every meal and has high medicinal value [22]. Plant oils included in Indian food have high nutritive and therapeutic effects [23]. Medicinal herb extracts like Amla extract have high Vitamin C which is good for health [24]. South Indian food is mainly based on Idli and dosa enhances probiotic activity . Indian traditional rasam has high antipyretic, hypoglycemic[25] , antimicrobial activity[26] and reduces hypertension [27]. Some Indian foods are proven to cure cancer also [28]. Food especially made from beet root is proven to have a significant effect on haemoglobin value . Doctor check ups also suggest eating healthy food improves the health of the patient in many ways [29],[30] .Inclusion of clove to food has a beneficiary effect on teeth .

Indian food - A role in Ayurvedic medicine

Herbs rich Indian food plays an important role in Ayurvedic health supplements [31]. Indian food plays an important role in application of Ayurvedic concepts . Many Indian foods are recommended as Ayurvedic foods for many health disorders .Indian food based on curcumin, ginger and neem are used as immunomodulators in Rasayana therapy [32]. The dominant constituents of the body called *doshas* are classified into *kapha*, *pitta*, and *vatta*. Indian food plays a vital role based on the principles of ayurvedic diet i.e, *kedara kulya nyaya*, *khale kapota nyaya*, and *kshira dadhi nyaya*. These three principles(*kedara kulya nyaya*, *khale kapota nyaya*, and *kshira dadhi nyaya*)describe different aspects of digestion and function of food in the body [33].

Spice - Medicinal role in Indian food

Indian tradition has a long history for the use of spices in Indian food for its medicinal values to prevent and treat diseases. Curcumin based Indian food is used in ancient traditional medicine like siddha and Ayurveda [34]. Black pepper has anti bacterial and anti cancer properties and can also prevent constipation. Jeera / Cumin helps in the digestion[35].Cardamom increases appetite and has anti inflammatory and antibacterial properties. Chilli improves digestion and helps against migraines, cloves help in tooth problems [36,37]. However chillies can also cause nocturia [38]. The active components of the spices play an important role in their medicinal properties [39].The active metabolites of the spices and its health benefits have been mentioned in table 1.

SPICES	ACTIVE INGREDIENTS	HEALTH BENEFITS
Turmeric	Curcumin	Anti bacterial,anti oxidant
Cinnamon	Cinnamaldehyde	Against piles ,reduces blood sugar level
Cloves	Eugenol	Tooth problem
Black pepper	piperine	Anti bacterial, prevents constipation, anti cancer
Cardamom	Cineole	Increases appetite, anti inflammatory, anti bacterial
Jeera/cumin	Cuminaldehyde	Helps in digestion
Chilli	Capsaicin	Improves digestion.against migraines

Table 1 -Spices and their active ingredients and health benefits.

Black Pepper

Black pepper was considered as gold, a valuable item in ancient trade.Pepper is an extensively used spice both in Eastern and Western food.It has a noteworthy cancer prevention agent and antibacterial impact and assists with processing and weight reduction since it animates the breakdown of fat cells.Black pepper is considered as the lord of flavors, as it gets the best yield as decided from the volume of worldwide exchange.Black pepper has the ability to increase the production of HCl in the stomach that helps in the digestion. It is also anti-bacterial in nature, reduces blood pressure [40] and contains iron that is beneficial for the body. Black pepper has a high antioxidant property .Black pepper has been reported to influence lipid metabolism predominantly by mobilization of fatty acids .

Turmeric

The spice of every south indian household.In the south it is called “manjal,” a word that is frequently used in ancient Tamil literature .Turmeric is a spice that comes from the turmeric plant. The rhizome or underground stem of the plant is used as spice. Turmeric is used for rheumatoid arthritis, chronic anterior uveitis, conjunctivitis, skin cancer. It is also used for digestive disorders. It provides relief from abdominal pain and distension[41].The fundamental clinical focuses of turmeric are the organs in the digestive system for treatment of severe conditions like familial adenomatous polyposis, in the bowels, for treatment of inflammatory gut sickness [42].

Cardamom

Cardamom is obtained from several plants in the genera *Elettaria* and *Amomum* in the family Zingiberaceae. Cardamoms are indigenous to Indian subcontinent. Cardamom is also known as *elaichi*. It has a rich source of vitamin A [43] and Vitamin C. Vitamin C is a powerful antioxidant [44]. This spice promotes heart health, helps in digestion, enhances oral health, helps in diabetes [25,45], fights asthma [46], prevents blood clots and treats skin infection. It also combats nausea, gas, increases appetite and reduces heartburn [47]. Cardamom is rich in cineole, an active component of cardamom. The inhibitory impacts of cineole on the arrangement of prostaglandins and cytokines by activated monocytes in vitro, might be liable for its expected advantageous use in treatment as an anti-inflammatory and pain-relieving specialist.

Food processing and preservation

Food preservation helps in prevention of microorganisms [48]. It includes curing, cooling, sugaring, freezing and boiling [49]. The history of food processing reveals its merits and demerits [50]. Food Processing involves the transformation of agricultural products into food. Food additives are added to preserve the flavour or to enhance it [51,52]. Food processing is a major driver of economic growth [53]. Food preservation and food processing steps improve the food quality and increase the nutritional value.

Advantages of food preparing and safeguarding incorporate poison expulsion, protection, facilitating advertising and circulation assignments, and expanding food consistency. Food handling and safeguarding helps from multiple points of view like, it builds yearly accessibility of numerous nourishments, empowers transportation of fragile short-lived food sources across significant distances and makes numerous sorts of nourishments safe to eat by deactivating decay and pathogenic microorganisms. Present day general stores would not exist without current food preparing procedures, and long journeys would not be conceivable [28,54].

The chance of spoilage is less in processed foods than fresh foods and are better suited for long-distance transportation from the source to the consumer. At the point when processed food were first presented in many nations, they assisted with mitigating food deficiencies and improved the general nourishment of population as it made numerous new nourishments accessible to the majority. Now a days paraffin waxes are used in processing the food since it gives a shiny appearance, but use of paraffin wax is not good for health [19].

Popularity

Indian food has high import and export value. Indian cuisine is ninth in world ranking with an average popularity score of about 62% among 24 countries [55], 77% of Singaporeans, 70% Malaysians, 49% Indonesians, 44% Vietnamese like Indian cuisine. Indian cuisine is praised by European countries [56]. The active components of the spices play an important role in their medicinal properties [57].

Future scope :

This review proves that Indian food has health benefits similar to allopathic medicines. With the world returning to organic ways to sustain life, replacing chemical medicines with naturally cooked Indian food can cause a great green revolution in the future. This review also educates the future generation about the health benefits of Indian food that is long forgotten.

Conclusion

There is such a great amount of assorted variety in customary/ traditional Indian food in light of the fact that the regional food sources are developed by the atmosphere, culture and trimming practices of a specific area. Besides, certain nourishments have gotten increasingly mainstream in specific location as indicated by the wellbeing state of the population. This study stands as a pillar representing the health benefits of Indian food. These knowledge are required for the newer generations to lead a chemical free and healthy lifestyle. "EAT WELL LIVE WELL BE WELL."

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Author Contribution

R. Theiva chandran executed the work by data collection and drafting of manuscript .S.Leslie Rani devised the concept and design of the study and validated the data collection .S.Leslie Rani and M.P.Brundha carried out the work of revision and proof -reading of the review.K.Anjaneyulu validated the data collection.

Conflict of interest

None to declare

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