

Traditional Nutritional and Health Practices Targeting Lifestyle Behavioral Changes in Humans

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In this 21st century who isn't enticed by the glamorous and appealing life in the fast lane? We are surrounded by wonders, something we could never have imagined erstwhile. We have everything just a click or a call away. This alluring lifestyle comes with its own perils, the biggest one being concerned with health which is often compromised with check ins and home delivered food but the problem doesn't just lie with the outside food but also with all those chemical enriched engineered expensive food items. The industry often tempers with our food to make it "More Attractive" to the consumer. However, in modern era, availability of drugs and fancy powders has led to imbalance of health and nutrition, contrary to the previous era when home gardening was very common and people preferred fresh-foods which didn't contain added chemicals. They even used to treat some of the health problems with the natural ways that we nowadays refer to DIYs (Do-it-yourselfes). Since Ayurveda used natural herbs and plant extracts for treatment, the earth was fresher and less-polluted which led to greater life expectancy. The modern era also has its own benefits like excellences in allopathy medicine has brought a cure to many untreatable diseases of the ancient times, and have even eradicated certain diseases like smallpox and polio. To summarize, both the time had their own pros and cons, so it would be better if we take both of their advantages into consideration and work ahead to live a healthy life.

Key Words: Lifestyle, Traditional, Health, Nutrition, Diseases, DIYs

INTRODUCTION

Human body is made up of billions and trillions of cells which function in a coordinated manner to perform any activity. These cells require wholesome food for nutrition in order to work. When our diet is unable to fulfil their nutritious demand then we suffer from disease. Not only

eating habits but other day to day habits are also responsible for common lifestyles disease occurrence. It has been found that non communicable diseases kill around 40 million people each year that is approximately 70% of all deaths globally [1]. Non communicable diseases are chronic in nature and are mainly the result of improper daily lifestyle. Lifestyle can be described as a way of life led by people, communities and countries. Furthermore, lifestyle defies the characteristics among the inhabitants of a population residing in various geographical regions at any particular time [2]. The industrialization and advancement in technological aspects improved the standard of living of human kind but also brought its own cons that cannot be neglected. Modern lifestyle is considered to be fast where people prioritize money rather than their own physical health. The fast food

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culture and IT culture has made a man lazy and the modern life revolves around computers. The lack of physical exercise and increasing amount of stress has escalated the process of aging and emergence of new diseases. Furthermore, the diseases that were usually observed among the elderly population can now be seen among the young individuals. Furthermore, the deteriorating quality of food and lack of proper nutrition has escalated the process and has led to emergence of various health complications at a very young age. The diseases associated with lifestyle have a severe impact on the health of an individual. The transition in lifestyle has resulted in the emergence of cardiovascular diseases which are majorly associated with obesity and other lifelong diseases like diabetes. We all luckily belong to the most diverse country of the world. We all have grown up studying the cultural diversity of our country but many of us forget about the native food of India. Although the modern era is believed to be more educated and knowledgeable, it is a fact that we know very little about our traditional food. The current review describes the emergence of lifestyle associated ailments like cardiovascular diseases, cancer, diabetes, hypertension and their treatment using traditional medicine.

TRADITIONAL FOOD CONSUMPTION AND ITS BENEFICIAL IMPACT ON HEALTH: ROLE OF ANTIOXIDANTS

Apart from being healthy traditional foods are also very delicious. Their several health benefits include supporting the immune system, circulatory system, brain function and several other metabolic functions in the human body [3]. Nowadays when anyone suffers from fever they usually take antipyretic drugs. We all must have seen our grandparents advising us to drink milk with turmeric. Turmeric contains a natural anti-inflammatory compound called curcumin which increases the antioxidant capacity of the body and thus relieves us from fever. But we always choose the fastest way to sort any problem so we rely on these antipyretic or any other antibiotics. But due to this antibiotic our body may suffer from various side effects like dizziness, nausea etc. Today many of us suffer from obesity, heart disease and other related problems. There is a human ten-

dency to reduce the use of cooking oil in order to reduce weight. Earlier people used to cook the food in mustard oil. They were not much aware about these processed oils, but mustard oil definitely provided them the health benefits. Mustard oil is a source of omega 3 and omega 6 and healthy fats which do not accumulate in the blood vessel and thus reduces the risk of heart disease [4]. This oil has cholesterol reducing properties. In fact, infants and toddlers are also massaged with mustard oil that prevents them from infection as it is a rich source of antioxidant.

Apart from nutrition other examples of various traditional practices are present in our past which could be utilised in today's date for treatment and improving health. Tai Chi (also known as Shadow Boxing) is a form of exercise known for its graceful movements. It originated in China and was practiced over centuries for health and long life [5]. An ancient Chinese healing art called Qigong involves coordination of different breathing patterns, exercises for posture, movement, and meditation. It is believed that it increases the healthy flow of qi throughout the body to heal itself. Qigong is claimed to have beneficial effects on various disorders, including cardiovascular disease [6]. A system of medicine called Unani is Arabo-Greek medicine based on the concept of balance and equilibrium of natural body humours (blood, bile, phlegm, etc.) [7]. The imbalance among them causes diseases therefore this balance must be restored. Classical ayurveda prescribes metals and minerals as medicines (bhasmas- incinerated mineral formulations) or in combination with herbs as herbo-mineral formulations. The knowledge of ayurveda is present in Sanskrit stanzas in the ancient religious text (Vedic Samhitas) that describe diagnosis and therapy of disease and ways to maintain a positive health [8].

The treatment of lifestyle disease with modern medicine like allopathic has a vast spectrum of side effects [9]. The side-effects of modern treatment open a doorway to explore other alternative treatment approaches.

COMPARISON OF TRADITIONAL LIFESTYLE AND MODERN DAY LIFESTYLE

With the advent of modernization, traditional food habits

are lost. Advancements of these modern days have proved to be both boon and curse for human beings. Earlier lifestyles of humans primarily focused on growing vegetables, crops, hunting animals and their consumption. They used to work a lot, which kept their body running and therefore they were healthy and rarely encountered any disease. With modernisation, things have changed. Humans began to employ machines to do most work while he can just sit comfortably and command them to do work. The amount of work done by the human body has become critically low and mental stress is increased at peak. Due to these changes in lifestyle ultimately human health is affected.

Traditionally healthy lifestyles basically include five components including low alcohol consumption, no smoking, a healthy diet, physical exercise and getting sufficient sleep. People following this pattern of lifestyle have shown very low risk of getting any cardiovascular diseases [10]. In the modern era, the consumption of lifestyle medicine and lifestyle drugs is elevated to treat lifestyle illnesses i.e. diseases arising from lifestyle choices such as alcoholism, smoking, etc. Lifestyle drugs also include various fake drugs because many people are used to self-medication [11]. Modern lifestyle has also affected the gut microbiota as compared to the people who are used to a rural way of life similar to that of our ancestors. They seem to have a healthy, resistant and diverse gut microbiota because they're not used to consumption of medicine. Medication can alter the ecological relationship and disease patterns of a population by eradicating the beneficial microbiome from the gut. However, in today's industrialised civilisation, the human diet has vastly changed, their diet is protein rich and has high calories and the intake of beneficial bacteria has decreased. This microbiota is not only reduced by lifestyle issues but also by aging. Therefore, to recover this microbiota development of probiotics and prebiotics have been proposed [12]. Fermented food products such as Tofu, Kefir, etc. have health benefits. The beneficial microbes in these food products play an important role in the intestinal ecosystem [13]. Modern lifestyle also employs the use of mobile phones especially by youngsters. Studies have shown high mobile phone usage was associated with disturbance in sleep, depression that most likely affects the mental health of an individual [14].

The luxury of the modern era has deprived us from various benefits. Earlier when there were no dining tables, everyone sat on the floor and had their meal. It has been proven that sitting on the floor cross legged while having food is typically a yogic posture called Sukhasan [15]. This asana is beneficial as it massages the abdominal muscles and boost blood circulation in the lower part of the body and increases flexibility. Thus this yogic posture prevented the lower back pain, joint stiffness, muscle tightness and other body problems. Apart from these advantages it has improved the postures and is even helpful in relieving stress. Sitting on dining has made us devoid of these benefits.

Apart from this early morning breakfast is also very fruitful. The legendary Roman breakfast 'jentaculum' was taken immediately after sunrise [16]. Many people use to skip their breakfast in order to lose weight but this skipping reduces the body metabolism and makes us more voracious during lunch. Our grandmothers and their ancestors used earthen pots in order to cook food. Although they were not much aware about the steel or aluminium utensils, pots made of clay (Earthenware) had strong advantages. They add calcium, phosphorus, magnesium and other minerals to the food. Clay is alkaline in nature and so when clay pots are used as food the alkaline nature of these pots neutralizes the acidic food. Apart from this many deadly diseases like cancerous cells are also inhibited in an alkaline environment. We all must have observed our grandparents eating their meal with hands and now many people are there who don't even know how to eat with their hands. Majority of them require spoons, although it is hygienic, but this practice has deprived us from the benefit of eating our food with our hands. According to Ayurveda while eating our food with hands, the five fingers form a yogic position called mudra which activates the sensory organs that keep prana in balance [17]. Today also in rural areas people say that the real enjoyment of having meals is only through hands. This is because when the hand touches the food, the brain sends a signal to body to release digestive enzymes and thus digestion is improved and the taste of food also gets enhanced.

INCREASED RISK OF NON-COMMUNICABLE DISEASES CAUSED BY MODERN LIFESTYLE

According to WHO, about 40% of population is obese or overweight. The increased body mass index (BMI) is a significant risk factor for non-transmissible diseases such as cardiovascular diseases, osteoarthritis, chronic respiratory disorders, diabetes, and some cancers [18], Fig. 1. Physicians consider physical inactivity as the major cause of obesity. Other significant causes are overeating and consuming a high fat diet. Nowadays people consume fast foods more and neglect the healthy diet that they should follow. Obesity and overweight are a result of low consumption of fruits and vegetables, high consumption of fast foods, soft drinks, etc. low physical activity, watching television or mobile phones in the same position for hours [19].

Type 2 diabetes mellitus is a rapidly growing chronic illness in both developing and developed countries. More than 300 million people suffer from diabetes globally. The epidemic growth of diabetes is a major concern for obese and

elderly people and among some youngsters too. Secondary diseases such as renal failure, retinopathy, etc. can primarily be caused by diabetes mellitus [20]. Lifestyle changes and self-care knowledge can surely help in countering this illness like simply following a healthy diet plan and working out. Lifestyle intervention is an effective way of reducing the incidence of diabetes in people at high risk [21].

ROLE OF CHINESE MEDICINAL HERBS IN DISEASE PREVENTION AND TREATMENT

Traditional herbal medicines derived from plants are proven clinically effective and have fewer side effects compared to western medicines [22]. In Indian and Chinese culture approximately 800 plants have been recognised for prevention and treatment of diabetes mellitus [23]. The leaves of *Gymnema sylvestre* have been used for treatment of diabetes, joint pain, and snake bites in India and China. The leaf extract of the *G.sylvestre* has also been marketed as herbal supplements for diabetic patients [24]. *Momordica charantia*, a tendril-bearing vine belongs to the Cucurbita-

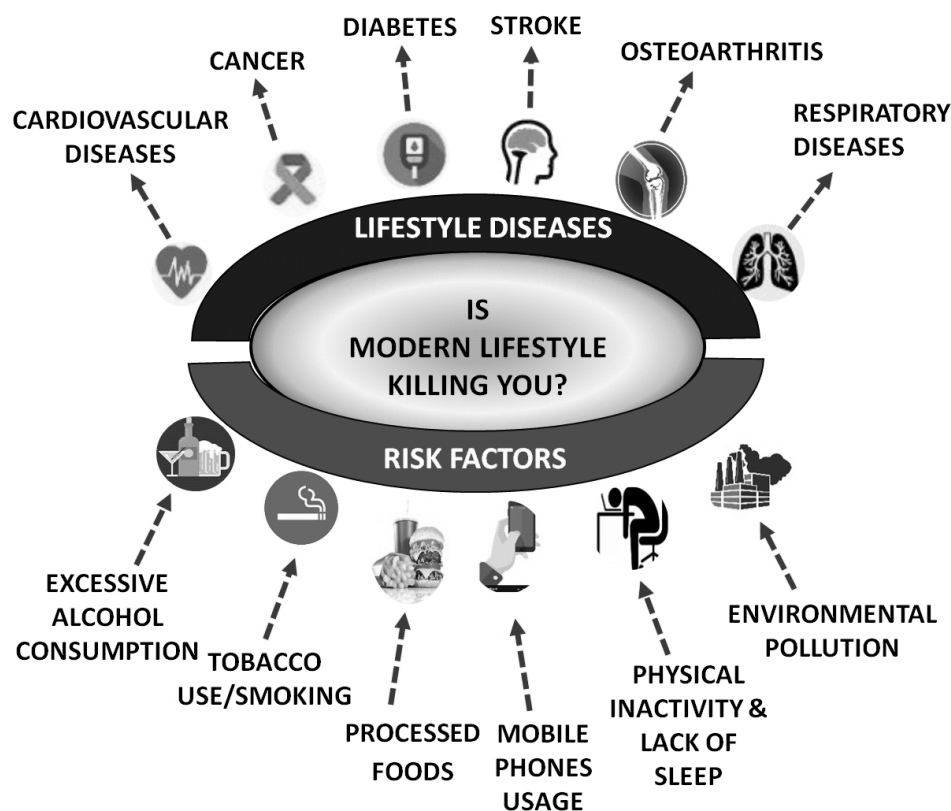


Fig. 1. Risk factors of modern lifestyle and non-communicable diseases caused by them.

ceae family (karela), is a popular plant used for the treatment of diabetes in China, South America, India, etc. [23].

A large number of individuals suffer from cardiovascular diseases, hypertension. It can be prevented if the rise in blood pressure with aging can be counteracted [25]. Hypertension is a worldwide public health challenge because of its high frequency and risks of cardiovascular and kidney disease [26]. Hypertension in most of the adult people remains untreated or uncontrolled. Blood pressure control in the population is far from normal. Effective treatment of hypertension is limited by the adverse effects of anti-hypertensive medications. Thus, due to the limitations and concerns with current available hypertension treatments, traditional Chinese medicine could be used. For more than 2500 years it is being used to treat symptoms related to hypertension [27]. Use of Chinese herbal medicine alone may be beneficial to reduce blood pressure in patients with hypertension [28]. Acupuncture is an ancient practice of traditional Chinese medicine that has profitable effectiveness for treatment of cardiovascular disease, hypertension [29]. In the Unani system, bloodletting cupping therapy (Hijama) is used in treating pain and other complaints. A cup of plastic, bamboo, glass or silicone is used to apply suction on desired points of the skin. Afterwards incisions are made to those desired points of skin to suck out and remove blood into replaced cups [30].

In the ancient times, people were much aware about the benefits of the Flora in the environment. People acquiring knowledge about them known as Vaidya used the herbal extract in order to treat various infections and diseases. *Rauwolfia serpentina* popularly known as sarpagandha is a shrub, the root contains highest level of indole alkaloids that are known for treating hypertension [31]. Leaves of *Urtica Dioica L.* commonly called Nettle when boiled in water are utilised for curing body pain. In case of sore throat and cough the leaves of *Borago officinalis* (commonly known as Starflower) or *Eucalyptus obliqua* (Neelgiri) are used for its treatment. *Equisetum arvense* (common name Field horsetail) leaves used for curing of inflammation [32].

CONCLUSION

Traditional health practices have been serving human civ-

ilization for decades from the ancient period to this ongoing modern era. But the implementation of these practices has reduced as people are unaware about the benefits they achieve from it. They follow an irregular lifestyle pattern that adversely affects their health. Either a person is becoming too lazy or so busy that they are not consciously taking care of their health and suffer from lifestyle diseases. For example, while cooking food we add a tastemaker (which is processed and packaged) rather than using the spices, as it is much easier to use but it cannot provide us benefits that natural spices contain. Apart from adding flavour to the food, spices enhance the nutritional value of the food making it more enjoyable and healthy. Some people believe that spicy food can give them ulcer but it is actually caused by bacterium *Helicobacter pylori*. Chilli pepper contains an active component capsaicin that stimulates secretions and reduces stomach acid [33]. A normal physical exercise such as jogging 15 to 20 minutes in a day is an effective cardiovascular workout that keeps the heart healthy, prevents many heart problems and diseases. It builds up immunity, boosts the production of white blood cells and removes fatigue. Doing yoga is a fruitful way in the prevention of a number of lifestyle diseases like diabetes and co-occurring conditions such as hypertension and dyslipidemia. When encountering any disease one should prefer going for traditional medications like Ayurveda, Unani. Ayurveda is a form of complete natural treatment. This medication helps in easy weight management, reduces stress, deep cleans the body and helps you sleep better. Unani medication has a high success rate for the treatment of recurring diseases such as joint pain and asthma.

Although the advancements in the modern era have brought us a finer understanding of making our lives better. Diseases like cancer which were once difficult to diagnose and were considered untreatable can now be cured. In cases of virus outbreak, vaccines and antiviral drugs can be manufactured using modern tools and technologies. In this busy schedule the time management skill and proper knowledge about health is crucial for well-being. Recently we all are suffering from the havoc caused by COVID 19 disease. Many researchers and doctors suggest us to consume more garlic, ginger, black pepper, turmeric etc. Thus what humans have forgotten to add in their meals are now forced

to add because of their advantages. Thus along with this different types of lifestyle related diseases are caused due to our unhealthy way of living and can be prevented or cured by bringing back to practice the traditional health and nutritional knowledge.

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CONFLICTS OF INTERESTS

None to declare.

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