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## Lifestyle disorders, prevalence, its preventive aspects and management in unani system of medicine: A review

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### Abstract

Lifestyle Disorder (LSD) is a common problem among higher society. It affects both genders. Prevalence of LSD is more common among older age. The incidence of lifestyle diseases like hypertension, diabetes mellitus, dyslipidemia, and overweight/obesity associated with cardiovascular diseases is high on the rise. Cardiovascular diseases (CVD) continue to be the major cause of mortality representing about 30 per cent of all deaths worldwide. Non-communicable diseases (NCDs), especially cardiovascular diseases, cancers and type 2 diabetes mellitus, account for 53 and 44% of all deaths and disability-adjusted life years (DALYs) respectively. *Asbab-e-Sitta Zarooriya* (six obligatory factors) are the proficient causes which are either directly or indirectly responsible for the preservation or transition of existing health.

**Keywords:** Lifestyle disorder, sedentary life style, non-communicable disease

### Introduction

Lifestyle diseases (also called diseases of longevity or diseases of civilization) are diseases that appear to become ever more widespread as countries become more industrialized<sup>[1]</sup>. Lifestyle diseases characterize those diseases whose occurrence is primarily based on the daily habits of people and are a result of an inappropriate relationship of people with their environment. The main factors contributing to lifestyle diseases include bad food habits, physical inactivity, wrong body posture, and disturbed biological clock<sup>[2]</sup>.

Lifestyle diseases like hypertension, diabetes mellitus, dyslipidaemia and overweight/obesity are the major risk factors for the development of CVD<sup>[3]</sup>. Rapid urbanization and industrialization is leading to increased lifestyle risk factors and thus lifestyle diseases. Lifestyle diseases are causing more number of deaths and disability worldwide in recent years<sup>[4]</sup>.

In recent decades, life style as an important factor of health is more interested by researchers. According to WHO, 60% of related factors to individual health and quality of life are correlated to lifestyle<sup>[5, 6]</sup>.

Cardiovascular diseases (CVD) continue to be the major cause of mortality representing about 30 per cent of all deaths worldwide. Lifestyle diseases like hypertension, diabetes mellitus, dyslipidaemia and overweight/obesity are the major risk factors for the development of CVD<sup>[7]</sup>. According to a research paper published in the prestigious Lancet, there is corroborative evidence that diet and lifestyle is playing a major role in predisposition to various diseases like cancer<sup>[2]</sup>. Adaptation of western lifestyle, characterized by convenience food, TV and PCs, is taking its toll on children as well as adults, and is producing increased numbers of overweight, passive youngsters with lifestyle diseases<sup>[8, 9]</sup>.

### Examples of lifestyle disorders

Lifestyle diseases include atherosclerosis<sup>[10]</sup>, heart disease<sup>[11]</sup>, and stroke<sup>[12]</sup>, obesity<sup>[13]</sup> and type 2 diabetes<sup>[14]</sup> and diseases associated with smoking and alcohol and drug abuse<sup>[15, 16]</sup>.

### Prevalence

Over 61 per cent of all deaths in India attributed to lifestyle or non-communicable diseases (NCDs)<sup>[17]</sup>. Coronary artery disease (CAD) is a major cause of cardiovascular death worldwide<sup>[18]</sup>.

The prevalence of CAD risks in Indians living in India is 11% for non-diabetic patients and 21.4% for diabetic patients<sup>[19]</sup>. At present scenario CVD have now become the leading cause of mortality in India. A quarter of all mortality is attributable to CVD. Ischemic heart disease and stroke are the predominant causes and are responsible for >80% of CVD deaths<sup>[20]</sup>.

Atherosclerosis is a leading cause of vascular disease worldwide. Its major clinical manifestations include ischemic heart disease, ischemic stroke, and peripheral arterial disease<sup>[21]</sup>.

The worldwide prevalence of overweight and obesity has doubled since 1980 to an extent that nearly a third of the world's population is now classified as overweight or obese<sup>[22]</sup>.

Obesity rates have increased in all ages and both sexes irrespective of geographical locality, ethnicity or socioeconomic status, although the prevalence of obesity is generally greater in older persons and women<sup>[23]</sup>.

The prevalence of obesity has increased by 65% in men, and 25% in women. It was estimated that in 2010, England contained 6.6 million obese men (33% of the population) and 5.9 million obese women (28% of the population)<sup>[24]</sup>.

The proportion of men predicted to be obese was greater than the proportion of women. It has been estimated that on current trends, by 2050, 60% of males and 50% of females will be obese<sup>[25]</sup>.

Hypertension is a major public health problem due to its high prevalence all around the globe. Around 7.5 million deaths or 12.8% of the total of all annual deaths worldwide occur due to high blood pressure. It is predicted to be increased to 1.56 billion adults with hypertension in 2025<sup>[26]</sup>.

Worldwide prevalence of diabetes was estimated to 8.3% (382 million) aged between 40 to 59 years and 46 % (175 million) of undiagnosed cases in 2018<sup>[27]</sup>, but in India alone 65.1 million and in China 98.4 million cases have been noted. And it may arise up to 55 % (592 million) by the year 2035<sup>[28]</sup>.

Burden of cancer in India increased from 0.6 million in 1991 to 1.4 million in 2015. Among males, common cancers are lung (12.0%), mouth (11.4%), prostate (7.0%), and tongue (7.0%) and among females, they are breast (21.0%), cervix-uteri (12.1%), ovary (6.9%), and lung (4.9%) in 2012<sup>[29]</sup>.

Global burden of cancer worldwide using the GLOBOCAN 2018 estimates of cancer incidence and mortality produced by the International Agency for Research on Cancer, with a focus on geographic variability across 20 world regions. There will be an estimated 18.1 million new cancer cases (17.0 million excluding nonmelanoma skin cancer) and 9.6 million cancer deaths (9.5 million excluding non-melanoma skin cancer) in 2018<sup>[30]</sup>.

In both sexes combined, lung cancer is the most commonly diagnosed cancer (11.6% of the total cases) and the leading cause of cancer death (18.4% of the total cancer deaths), closely followed by female breast cancer (11.6%), prostate cancer (7.1%), and colorectal cancer (6.1%) for incidence and colorectal cancer (9.2%), stomach cancer (8.2%), and liver cancer (8.2%) for mortality<sup>[31]</sup>.

### Risk Factors

For any lifestyle disorders, two types of risk factor are responsible. i.e. modifiable and non-modifiable<sup>[32]</sup>.

Modifiable risk factors are those which can be controlled or managed like smoking, alcohol, drug abuse, diets, sedentary life, stress, disease, obesity, etc.<sup>[33]</sup> But some are non-modifiable like age, gender etc.<sup>[34]</sup>

### Etiology (Asbaab)

Its etiology is attributed to:- Su-e-Hazam (Dyspepsia), Ifrat naum (Excessive sleep), Ifrat sakun (Excessive rest), Qillate harkat- e-badani (Sedentary life style), Martoob wa ghaliz Ghiz'a (Meat, fatty/oily and sweets), Balgham (Dominance of Phlegm), Mizaj Barid (Cold Temperament), Ghalbae Ifrate Sharab bade Ghiz'a (Excessive Alcohol after meal), Virasat and Khilqui (Hereditary and Congenital), Hawa-e-Ghaliz (Polluted air), Aa'be Ghaliz (Contaminated water), Farhat (Excessive gratification), Naghma (Music), Narm wa mulaim bister (Soft couch)<sup>[35]</sup>.

### Preventive Aspects

According to Unani Medicine, prevent of any disease is not a single entity but it is prevented with the help of various aspect i.e. in the form of package. Identifying and modifying the risk factors have been recommended as a strategy for their prevention and control in various diseases<sup>[36]</sup>. Regular physical activity helps prevent obesity, heart disease, hypertension, diabetes, colon cancer, and premature mortality<sup>[37]</sup>. There are various factors which maintenance or equilibrium the health status which are described as below in sub-headings

**Diet (Ghiza):** Diet is the greatest factor in lifestyle and has a direct and positive relation with health<sup>[38]</sup>. To promote and support healthy eating patterns, emphasizing on a variety of nutrient dense foods in appropriate portion sizes, in order to improve overall health and specifically to;-Attain individualized glycemic, blood pressure, and lipid goals<sup>[39]</sup>. Urban lifestyle leads to the nutrition problems like using fast foods and poor foods, increasing problems like cardiovascular<sup>[40]</sup>.

**Exercise (Riyazat):** lack of exercise as characterized by a sedentary lifestyle and an unhealthy diet may lead to accelerated ageing, diseases of the body and brain, and an overall decline in the quality of life<sup>[41]</sup>. For treating general health problems, the exercise is included in life style<sup>[42]</sup>. The continuous exercise along with a healthy diet increases the health. Some studies stress on the relation of active life style with happiness<sup>[43]</sup>.

Physical activity is an important element in the prevention and management of Type-2 diabetes in all its stages. Large and well planned studies have established the importance of exercise. One has to do 30-40 minutes of aerobic exercise and resistance exercise for 6 days a week and preferably all the 7 days<sup>[44]</sup>. The beneficial effect of physical activity are thought to decrease insulin resistance or improve insulin sensitivity, decrease over all adiposity, reduces central adiposity, improves blood glucose levels, lipids levels and blood pressure, brings desirable change in muscle mass<sup>[43, 44]</sup>.

**Sleep (Naum):** One of the bases of healthy life is the sleep. Sleep cannot be apart from life<sup>[45]</sup>. Sleep and wakefulness are an essential factor of life. Sleep is analogous to rest and wakefulness to movement. The normal physical and psychosocial functions depend on adequate sleep<sup>[46]</sup>.

**Sexual behavior (Jima-e-Moatadil):** Normal sex relation is necessary in healthy life. Dysfunction of sex relation is the problem of most of societies and it has a significant effect on mental and physical health<sup>[47]</sup>.

**Psychological activity and Repose (Harkat-wa-Sakoon-e-Nafsani)**

The psychic movement and rest influence the human health by different ways. In relation to psychic movement, Unani scholars explained different faculties which govern the internal and external functions of the body<sup>[46]</sup>.

**Elimination and Retention (Istifragh-wa-Ihtibas)**

Unani medicine believed that balanced between istifragh and ihtibas of substance is very important for maintenance of health<sup>[46]</sup>. The word Istifragh stands for the elimination of unnecessary or waste materials out of the body and retention of the substances which must be eliminated causes certain diseases<sup>[48, 49]</sup>.

**Management of lifestyle Disorders by Unani Medicine**

Unani medicine has got packaged treatment strategy for its management which ranges from dietary modifications, specific regimental procedures to various pharmacotherapies<sup>[50]</sup>. A Pharmaceutical intervention aims at the formation of the normal blood and evacuation of the deranged phalagmatic humour<sup>[35]</sup>. Asbab-e-Sitta zarooriya (six obligatory factors) are the proficient causes which are either directly or indirectly responsible for the preservation or transition of existing health. Nobody could break out from these factors during their life. The harmonization in these factors is necessary for the existence of equilibrium in health status<sup>[46]</sup>.

**Conclusion**

Any imbalance in the six essential factors may predispose majority of lifestyle diseases. The physicians while treating any patient should always look for any imbalance in essential factors and advice the appropriate regimen, as per requirement of body e.g. avoid heavy spicy food; avoid water drinking during meal or just after meal, etc. Awareness about the role of these factors on human health among the community at any level, especially by adding it as a part of syllabus in bioscience, can make the individual skilled enough to live healthy lifestyle.

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