



Concept of non-communicable diseases (NCDs) in Unani system of medicine

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Abstract

Non-Communicable Diseases (NCDs) also known as chronic diseases that are not passed from person to person. LSD and NCD are the interchangeable term. Life Style Disease (LSDs) that can be potentially prevented by changes in life style, diet and environment. Lifestyle disorders are a group of diseases which includes, Hypertension, Diabetes, Obesity, Cardiovascular diseases, Dyslipidemia, Malignant and other neoplasm, Chronic low back pain etc. NCDs Kill - 38 million people each year, CVD - 17.5 million per annum, Cancers - 8.2 million, Respiratory diseases - 4 million, and Diabetes - 1.5 million. As Avicenna elaborated, the disease state starts by *dystemperament*, which is a change in the normal temperament of an individual, or of an organ, to a new temperament that is outside the range of normal. The temperament is a product of the mixing of the four physical states: warmth, coldness, wetness (or dampness), and dryness. Therefore, a change in one will produce a change in the others. Prolonged *dystemperament* imbalances the body fluids, the humors, not only in quantity but also in quality. Thus, the state of disease in Unani medicine is based on *dystemperament* and humoral imbalance. Maintaining of *Asbab-e-Sitta Zarooriyah* is important to harmonious homeostasis of the temperament, humours of the body.

Keywords: non-communicable diseases; unani system of medicine; lifestyle disorders

Introduction

According to Unani medicine, health is attributed to the equilibrium of *Akhlat* (qualitatively as well as quantitatively) in the body, while disease occurs due to disturbances in this equilibrium. There is always a cause behind the origin of a disease. Unani scholars have given a very comprehensive classification of *Asbab* (causes), which almost cover all prevalent causes of all diseases. *Asbab-e-Badaniyya* (somatic causes) directly deals with the diseases caused by *Su-e-Mizaj* (inequitable temperament) or *Sū'-e-tarkib* (structural malformation of body organs). While *Asbab Badiyah* (external causes) encompasses almost all causes-emotional, physical, chemical, microbes etc, which directly or indirectly affect the equilibrium of human body. The disease produced due to the above described causes manifest in three forms, which make three broad categories of disease comprising almost all disorders. These are as *Amraz-e- su-e-mizaj*, *Amraz-e- su-e-Tarkib* and *Amraz-e-Tafarruq-e-Ittisa* [1, 2].

As far as non-communicable diseases are concerned; these conditions arise because of an inappropriate management of *Asbab-e-Sitta Zarooriyah* (six essential factors) over a long period of time. Inappropriate management of these essential factors leads to change in the *Mizaj* of person; any change in the *Mizaj* brings change in person's state of health. For example overeating and sedentary lifestyle increase *Barudat* in the body, which increase the likelihood of developing the obesity. Similarly *Bekhabi* increases *Yabusat* in the body and *yabis Mizaj* persons becomes more prone to develop hypertension as compared to *mu'tadil Mizaj* persons [1-4]. Therefore, the main approach in Unani medicine for the prevention of these diseases is maintenance of balanced temperament under varying conditions of life through

moderation in *Asbab-e-Sitta Zarooriyah* and the therapeutic approach to the same is evacuation of the abnormal/excess humour and strengthening the affected organ system by dietotherapy, lifestyle modifications, and use of medicinal herbs [4, 5].

Maintenance of Balanced Mizaj

Mizaj is one of the basic concepts of Unani system of medicine upon which diagnosis and line of treatment of a disease are based. This concept is not only of utmost importance in therapeutic decisions, but also of equal importance for preservation of health and prevention of diseases. Any change in the *Mizaj* (*Su-e-Mizaj*) of person brings about change in person's state of health. Hence, as long as we are able to maintain a balanced *Mizaj* under varying condition of life; health will prevail.⁵ According to Unani philosophy, health is governed by *Asbab-e-Sitta Zarooriyah* (six essential factors). Implementation of them in our life according to *Mizaj* soothes individual's lifestyle and helps in maintaining the balanced *mizaj* [3, 4].

Asbab-e-Sitta Zarooriyah

Those factors, which are affecting all human beings perpetually, are called essential factors (*Asbab-e-sitta Zarooriyah*). These essential factors are six in number and are remarkable in providing such six categories that include a very large number of factors, which may outwardly be quite distant to each other. Departing from principles of these factors results into diseases and following them restore health. These six essential factors of life are:

- *Hawā' Muḥīṭ* (Ambient air)
- *Ma'kūl-o-Mashrūb* (Food and Drinks)
- *Ḥarakat-o-Sukūn Badanī* (Bodily movements and

Repose)

- *Ḥarakat-o-Sukūn Nafsānī* (Psychic movement and Repose)
- *Nawm-o-Yaqza* (Sleep and Wakefulness)
- *Istifragh-o-Ihtibās* (Evacuation and Retention) [6].

Hawā' Muḥīṭ

The first of the six factors is atmospheric air, which is an elementary constituent of our physical body and vital forces. It is an active agent which restores the balance of the vital force to normal. Man remains healthy as long as the inspired air is well balanced, pure and free from admixture with substances injurious to the vital force. It is used for the prevention of diseases by taking into account the variations in air. Air is subjected to three types of variations namely a) normal b) abnormal but harmless c) abnormal and harmful. Normal variations are the seasonal changes, while abnormal and harmful variations means changes in the composition of air, which exercise or may exercise deleterious effect on human health. Thus, it is necessary that people should be well acquainted with the prevailing environmental conditions and the necessary measures required for preservation of health and prevention of disease [6, 7, 8].

Ma'kul-o-Mashrūb

Diet is an important component of six essential factors. The Unani medicine defines food as “the substances which are altered by the body and do not produce any change and become a part of the body”. Every food produces certain perceptible and non-perceptible symptoms when the same is administered in various concentrations. This effect is described in terms of one's feelings in different intensity. For e.g. if food is consumed and after its assimilation one does not notice any effect or change in his body, it is considered as *mu'tadil* or moderate. If it produces a slight effect of heat/cold /dryness/wetness, then it is considered as food having constitution of hot/ cold/ dry/ wet respectively. The intensity of the effects of foods depends on one's own *Mizaaj*. Comprehensive instructions are given on specific food/dietary schedules (for different times of the day, different seasons, according to one's age and most importantly to suit one's individual temperament). It is therefore essential to consider and comprehend dietary issues, which will help in promotion of health and prevention of diseases [9, 10].

Ḥarakat-o-Sukūn Badanī

To maintain perfect health and good trim, the body requires exercise as well as rest. *Ibn Sīnā* has mentioned in his famous book *Al-Qānūn fi'l Ṭibb* that “One who has the opportunity of taking moderate and regular exercise has no need for such medicaments that are required for remedying humoral and temperamental imbalance” [2]. While rest is needed to remove fatigue and stops the excessive *taḥallul* of *ruḥūbāt* and to retain the nutrients till the completion of digestion. The advantages of *Riyāzat* (exercise) mentioned by Unani scholars [11], are as follows:

- Help in excretion of waste material from the body.
- Make body light and active.
- Helps in digestion
- Strength joints, nerves, tendon, ligaments and muscles.
- Protects from various temperamental disorders.

Ḥarakat-o-Sukūn Nafsānī

Psychological factors such as happiness, sorrow, fear, anger, etc. have considerable bearing on the health of a human being. Unani physicians [12, 13], have given detailed description of metaphysical and somatic effects of these factors on human health. Psychological factors like anger, jealous, stress, anxiety are capable of changing body's temperament and can culminate therefore in various disorders. Therefore involvement in such negative emotions should at best be avoided or they should be dealt with patience to minimize the harmful impact of these emotions on health. While Positive emotions are said to keep body fresh and help in coping the challenges easily. Thus, for the maintenance of health a balance of emotions is must [5, 8, 10].

Nawm-o-Yaqza

Sleep removes all types of fatigue and stops the excessive *taḥallul* of *ruḥūbāt* promoted by activity. Sleep is an ideal form of rest; physical as well as mental. Lack of sleep causes dissipation of energies, mental weakness and digestive disturbances. Sleep directs the innate heat inwards and strengthen the physical faculty. It slows down the functioning of nervous faculty by relaxing and moistening the passage of nerves. It strengthens the vital force by preventing its dissipation. On the other hand, excessive sleep dulls the mental faculty. It produces *Amrāz-e-barida* due to accumulation of *fuzlat*. Wakefulness has the opposite effect to that of sleep it increases the desire for food and stimulates appetite by dispersing the waste. When it is excessive, it disturbs the brain by producing dryness and weakness and thus causes confusion. It impairs digestion by dissipating the strength of faculties. Thus, normal sleep and wakefulness are essential for health. Benefits of sleep mentioned by Unani scholars are as [1, 12]:

- Normal sleep produces *taskīn* and *taqviat* in the body.
- Sleep causes *tartīb* of the body and removes fatigue and restlessness.
- Normal sleep induces production of good humours.
- Sleep strengthens the *quwā ṭabi'iyya*.

Istifragh-o-Ihtibās

Elimination is the natural function of the body to rid itself of waste by different means i.e. the exchange of gases through the lungs (respiration), passing of stool, urine, sweating and menstruation. Everyone is aware of these means of elimination but coughing, vomiting, sneezing, hiccups, passing of wind, burping, mucous from the nose (running nose), nose bleeds, and pus in the corner of the eyes on waking in the morning, ear wax, vaginal discharge and ejaculation are also considered as natural eliminative processes. The *fuzlaat* (waste products) of body, if not completely and properly excreted will accumulate inside the vessels, cavity, in interstitial space, in potential cavities and pent-up and may produce *Amrād su'-i-mizaj maddi*. The advocated principle of prevention and treatment in such conditions is elimination of disease causing morbid matter from the body, through easiest and nearest channel towards which *tabī'at* is trying to dispose the matter already. Methods of assistance for elimination are *Riyādat* (Exercise), *Dalk* (Massage), *Ḥammām* (Bathing), *Faṣḍ* (Venesection), *Qay'* (Emesis), *Ta'liq al-'Alaq* (Leeching), *Hijāmat* (Cupping), etc [2, 3, 13].

Identifying features of different *Mizaj* and specific guidelines for them in context of *Asbab-e-Sitta Zarooriyah*

Unani medicine fully appreciates and understands the creation of man, his nature, his constitution and his relationship to the environment. Its Holistic approach focuses on how the physical, mental, emotional and spiritual elements of the body are interconnected to maintain wellness. Holistic approaches focus on the whole person rather than just on the illness or part of the body that is not healthy. In the holistic view symptoms are regarded as the body's expression of imbalance and an attempt to return to homeostasis (a state of equilibrium).

In Unani medicine, the entire personality of the person is taken into account because each individual has got his own basic structure, temperament, psychic make-up and self-defense mechanism. The *Mizaj* of a person is identified and specific schedules relating to life-style, (including dietary guidelines) recommendations are made that are most suitable for achieving and maintaining health of that particular person^[5]. If an individual moulds his/her lifestyle according to one's *mizaj*, he or she can keep diseases at bay. The basic tenet of conventional medicine does not take into consideration the body's exquisite range of subtle, sophisticated defensive, self-regulation and self-repair mechanisms which underpin its powerful propensity for self-healing. There is now substantial, mounting evidence that attaining health and our response to disease is influenced powerfully not only by the self-healing forces, but by a range of other more subtle influences – our temperament, our attitudes, our frame of mind, and our spiritual state. This is where Unani medicine makes its mark – either alone, or in partnership with conventional medicine as integrative medicine to combat the emerging epidemic of non-communicable diseases^[14].

Damwī al- Mizaj

Identification

Persons of this *Mizaj* are characterized by well-formed and prominent joints, oval face, more muscular tissues than fat; hairs of head are thick and luxuriant. They are pleasantly warm to touch. Veins are mildly prominent and pulse is full and strong. They have good appetite, balanced and sound sleep, and good faculty of judgment. They get trouble with hot things and feel comfort with cold and dry things and in cold weather. Their digestive power is wonderfully good. An optimistic positive mental outlook, they are persuasive extrovert, have good social skills. They have romantic nature, like to travel, play games and distractions, confident, poised, graceful and enthusiastic^[2-5, 14, 15].

Guidelines in Unani System of Medicine^[1, 5, 8, 13]

- Avoid staying for long in hot and moist air. They can tolerate cold easily.
- Winter is the best season for these persons.
- They should preferably drink cold water and avoid excessive sugar, rich fatty foods and meat consumption.
- They should use *barid-yabis* foods.
- Exercise should be so gentle that there is no over production of heat in the body.
- Excessive excitement, worry and anger should be avoided.
- Sound sleep of 6–7 hours is essential, while, sleep more than 8 hours will be harmful.
- Eliminative measures such as venesection and

purgation should be carried out early in spring.

- They should gargle with decoction of *Mastagi*, *Habbul aas*, and *Aaqirqarha* for the evacuation of morbid matter present in the brain.

Şafrāwī al- Mizaj

Identification

This temperament is marked by a medium stature, sharp angular features, medium/lean built, yellowish complexion, brilliant penetrating eyes, prominent veins and hairy body. Hairs are black, abundant, thick and curly. Pulse is rapid and strong. They feel comfort with cold things and get trouble with hot things. Most suitable season for them is winter. They have good digestion, sharp and quick appetite and sleep is light. They are energetic, bold, daring, and have brilliant intellect but they are impatient, irritable, and short tempered. Often they turn into fearless and rebellious leaders. They have strong inclination to indulge in sexual pleasure. They are indefatigable in their enterprises and most persistent, zealous, passionate and revengeful^[2-5, 8, 13, 14, 15].

Guidelines^[1, 5, 8, 13]

- They should live in a cool, fresh and properly ventilated environment.
- Exposure to sun or hot climate should be avoided.
- Winter season is beneficial for these persons, while they get trouble in summer, because bile increases in this season. So, *mukhrij* and *mushil-e-şafrā* drugs are recommended for these persons in summer like *sikanjabeen*, *tamar hindi*, *aalu bukhara*, *gul-e-neelofar*, *gul-e-banafsha* etc.
- They should take meals three times a day.
- They should avoid salty, fatty and fried foods and *ratāb* foods should be used by these persons like cucumber, water melon etc.
- They should avoid excessive movement and strenuous exercise, time of exercise should be early in the morning or late in the evening.
- Extreme emotions of anger, irritability, excessive talkativeness, and suppression of anger should be avoided.
- A good night sleep is essential for such type of temperament.
- Bile should be eliminated with emesis, purgation or both according to individual disposition. For purgation, *banafsha*, *tamar hindi*, *halela zard* are preferred drugs.

Balghamī al- Mizaj

Identification

Individuals of this temperament are flaccid, obese with soft and flabby muscles, white complexion, thin and soft hairs. Blood vessels are not prominent and pulse is slow and infrequent. Their movements and activities are sluggish. They feel comfort with hot things and in hot weather. They have round face with full cheeks, large moist eyes, have medium to large frame, more fatty tissue than muscular tissue and bones are well covered. They are calm, have sentimental subjective thinking, emotional, sensitive, tend to be religious, their mind is foggy and slow. They are sexually frigid and do not get angry easily. Their digestive organs are weak and slow, hence they have less appetite and poor thirst. They are lethargic, dull and take excess sleep. Their memory is poor and power of perception is slow and feeble^[1-5, 8, 13].

Guidelines [1-5, 8]

- Cold air negatively affects them hence air conditioners and cold and wet environment should be avoided.
- They should use hot and dry foods and avoid cold foods.
- Lack of exercise and unnecessary rest during day time especially one hour before sunset should be avoided. They should indulge in strenuous exercise for longer duration. Aerobics exercise is beneficial for them.
- Fear, shyness, depression are the emotional characteristics for this temperament which should be managed accordingly.
- They should get up early in the morning and avoid sleep after sunrise.
- Sweating is beneficial, it should never be suppressed and laxatives are also beneficial.

Saudavi al-Mizaj

Identification: These persons are characterized by lean and thin built, prominent bones, small beady eyes with sunken hollow cheeks and coarse and rough skin. They have dark complexion and profuse body hairs. Hairs are black and thin and have slow growth. Their digestion is weak, appetite irregular; sleep interrupted and often suffers from insomnia. Their touch is dry, leathery and cool. They have sluggish inclination towards sexual activity. They are analytical, detail oriented; retentive faculty of mind is well [1-5].

Guidelines [1-5, 8, 13-17]

- They should avoid staying in cold and dry environmental conditions for long. They need to be protected in dry weather conditions. Seashore and coastal areas are beneficial for their health.
- *Har-Ratab* foods should be given to these persons like *anjeer, maveez, chana, lobiya, anar shirin* etc.
- Melancholic should avoid cold, dry and stale food, excessive beans, nuts, astringent foods, peanuts, tomatoes, brinjal and rancid fats are harmful for them even in small quantities.
- Tea, coffee and artificially flavoured drinks should be avoided.
- They should drink at least 2-3 litres of water daily.
- Moderate and light exercise for short durations is best suited for such temperaments; especially walk for 15 minutes after dinner.
- Feeling of loneliness, depression and grief can have much more negative influence especially if prolonged or excessive.
- They should go to bed early for 6-8 hours night sleep.
- Bodily wastes like urine and stool should never be suppressed.
- *Sauda* should be evacuated from the body. For this purpose *haleelajat, bisfajj* and *Aftimoon* are recommended [18, 19, 20].

Conclusion

According to Unani medicine, lifestyle diseases are the diseases which arise from imbalance in the *Asbab-e-Sitta Zarooriyah* over a long period of time. The humoral imbalance can be corrected by proper diet and medication. The physician prescribes drugs according to the temperament of patient, causative humour, faculty of organ involved and severity of the disease. These drugs are classified as per the specific temperament (*Mizaj*) and are graded in the first, second, third and fourth degree according

to their potency. Unani Medicine gives more importance to maintenance of health and prevention of disease rather than treatment. In a completely healthy person it prescribes lifestyle, diet and environment appropriate for his or her temperament, while in healthy but weak persons or healthy persons who have become vulnerable to disease, special diets, non-drug manipulations or regimens and even drugs are prescribed to maintain health and prevent disease.

Funding and Conflict of Interest: Nil

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