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Review Article

Research Opportunities in Unani/ Greco-Arabian Medicine

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Abstract

Unani medicine is a traditional system of medicine which was founded on the teachings of Hippocrates (460-377 BC). It is based on a holistic concept of health preservation, promotion and disease prevention. *Mizaj* (temperament), *asbab-e-sitta zaruriyah* (six essential factors), and *tabiy'at* (physis) are the basic concepts of Unani medicine which help in disease prevention as well as management. Unani medicine has a rich treasure of many effective preventive and therapeutic methods for lifestyle disorders, acute and chronic diseases, as well as psychological conditions. In this paper, we discuss the important research areas in Unani system of medicine, particularly related to present-day world.

Keywords: Unani medicine, lifestyle, chronic diseases, *Mizaj*

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Introduction

The foundation of Unani medicine was laid in ancient Greece by Buqrat, better known as Hippocrates (460-377 BC). The teachings of Hippocrates were later advanced in the medieval ages by Muslim physicians of Arabian Peninsula and neighboring countries such as Persia, Iran, Egypt, Syria etc. In later years, Indian physicians also contributed to Unani system of medicine. Hence, it is also known as Greco-Arabian medicine, Persian medicine and Unani Tibb¹. Presently, India is one of the most important countries where practice of Unani medicine is concerned. It has the largest number of educational, research and health care institutions which work for the research and development of Unani medicine². The approach of Unani medicine towards health is a holistic one. In Unani medicine, strong emphasis is placed on disease prevention and health protection through natural methods³. It offers an effective treatment for numerous respiratory, gastrointestinal, musculoskeletal, genito-urinary, cardiovascular, neurological, and lifestyle diseases¹. *Al-Qanoon fil Tib* of Ibn Sina (980-1035 AD), *Zakhira Khwarzam Shahi* of Ahmad al-Hasan Jurjani (12th cent. AD), *Kitab al-Kulliyat* of Ibn Rushd (1126-1198 AD), *Kitab al-Hawi* of Zakariya Razi (865-925 AD), *Kamil us-Sana'ah* of Ali Ibn Abbas Majusi (930-994 AD), *Al-Tasreef* of Abul Qasim Zahrawi (936-1013 AD) are some of the famous books of Unani medicine^{1,4}. Unani medicine has rich treasure of prevention and treatment modes for various acute and chronic disorders as well as guidelines for surgical intervention^{5,6}. In this paper, we hereby explore some of the

important research areas in Unani medicine which can be beneficial in the present era.

Basic concepts of Unani medicine

In Unani medicine, health and disease are thought to be cause due to a derangement of *mizaj* (temperament) which is formed by the interaction of *arkan* (elements) in that organism. Hence, a particular *mizaj* is unique to each living being. The temperament may be *damwi* (hot-wet), *balghami* (cold-wet), *safrawi* (hot-dry) or *saudawi* (cold-dry). *Mizaj* depends on individual constitution, so there is no absolute normal *mizaj*, rather, it varies from person to person and with different ages, place of residence etc⁷. The maintenance of health depends on *asbab-e-sitta zaruriyah* (six essential factors) which are (i) air, (ii) food and drinks, (iii) bodily movement and rest, (iv), mental movement and rest, (v) sleep and wakefulness, and (vi) excretion and retention. A balance of these factors is responsible for the maintenance of health and imbalance causes diseases⁸. The modes of treatment are:

- Ilaj bit Tadbeer* (Regimenal Therapy): It involves modification in *asbab-e-sitta zaruriyah* through various means such as diet modification, massage, exercise, sauna, cupping, leech therapy, venesection etc.
- Ilaj bil dawa* (Pharmacotherapy): It involves the use of various herbal, mineral and animal drugs in crude form.

- c) *Ilaj bil Yad* (Surgery): It is used as last resort in the treatment of tumors, chronic non-healing wounds and as a lifesaving procedure.

In addition, there is a concept of power of self-preservation or adjustment endowed by nature, called *Tabiy'at* (*medicatrix naturae*). *Tabiy'at* is responsible for regulating the homeostasis and also stimulating the immune response in case of disease. The health prevention and promotion methods are also aimed to focus on the strengthening of *tabiy'at*^{8,9}.

Unani medicine and research

Unani system of medicine has immense opportunities of research in various fields. The research may be done to understand the basic concepts like *mizaj*, *tabiy'at* and *asbab-e-sitta zaruriya*; or to scientifically approve the treatment and prevention methods like various drugs, regimental therapies and surgical procedures. Some of the areas of research interest in Unani medicine are:

1. Concept of temperament: *Mizaj* (temperament) is the basic concept of Unani medicine which is important for understanding all aspects of disease causation, prevention, control and treatment. Infact, *ilaj bil ghiza* (diet therapy) is also advised after consideration of *mizaj*. Hence, research may be done to understand the causation and development of temperament in detail¹⁰. A few researches done on the concept of temperament have revealed that it may be related to the blood group of a person¹¹. A better understanding of temperament can also help in prevention of diseases¹².
2. *Mizaj* and behavioral disorders: Behavior is directly affected by the temperament of a person, in both disease and health. Hence, in a particular disease, the temperamental changes also cause behavioral changes¹³. This changes behavior has an impact on the response to treatment. The behavioral changes caused in response to modified temperament may be studied further for clinical purposes¹⁴.
3. *Ilaj bil Ghiza* (Diet therapy): Unani medicine has specific diet prescription for all ailments. The diet is prescribed after considering the temperament of both the patient and the disease, in addition to age, general health, season, dwelling and many other factors. The fluid intake and types of fluids are also prescribed in detail for almost every condition. The concepts of nutrition and health maintenance are based on sound principles and clinical experience^{15,16}. Hence, diet therapy is an interesting area of research in Unani system of medicine.
4. Medical and surgical emergencies: Although there is not a significant amount of literature on emergency conditions, however, some conditions like torsion of intestines, paralytic ileus etc. have been discussed by scholars like Ibn Sina. There is important information on the functioning of intestines and how to prevent such occurrences. Medical and surgical emergency conditions can therefore be given consideration in research¹⁷.
5. Shelf-life of compound drugs: The issue of shelf-life of herbal drugs and their appropriate date of expiration has been a matter of debate for a long time¹⁸. The study of activity-based standardization of herbal drugs offers a good opportunity to determine the shelf-life of the drugs; and will also be helpful in understanding the pharmacokinetics and pharmacodynamics of these drugs¹⁹.
6. Research on Medicinal plants: Herbal drugs used in Unani medicine contain many important medicinal compounds which help in prevention and treatment of diseases²⁰. In Unani medicine, the drugs are mostly used in crude form²¹. Scientific research on important medicinal plants will open new doors of therapy²².
7. Pain relief: Pain is a symptom of many acute and chronic illnesses and a cause of much agony to the patient²³. Pain relief is extensively described by Ibn Sina with mild drugs to strong drugs like opium¹⁸. Analgesia can be an important area of research in Unani medicine for its wide applicability²⁴.
8. *Ilaj bit Tadbeer* procedures: *Ilaj bit Tadbeer* is undoubtedly an interesting research area and most effective and valuable in the present era²⁵. Because of its holistic nature, *Ilaj bit Tadbeer* is easily acceptable all over the world. Some *Ilaj bit Tadbeer* procedures which may be explored are:
 - a. *Dalak* (massage therapy): Due to the changing lifestyle, mental stress and chronic illnesses are on the rise²⁶. Both groups of diseases require the patient to be mentally and physically relaxed before any treatment can be effective. *Dalak* is one such therapy which can provide both mental and physical relaxation and is also an effective therapy for pain and various other conditions²⁷.
 - b. *Taleeq* (Leech therapy): Leech therapy is a popular means of treatment in Unani medicine in which living medicinal leeches are applied to the skin for sucking blood²⁸. It is effectively used in many disorders like arthritis²⁸, psoriasis, etc. In Unani medicine, leech therapy is also advised for diseases like diphtheria, tonsillitis etc., which may be explored further²⁹.
 - c. *Fasd* (Venesection): Venesection involves draining out blood from specific blood vessels³⁰. Although venesection is mostly carried out in veins, Unani physicians have also described venesection of arteries in some diseases³¹. It is an effective treatment for removing plethora, congestion, and also for visceral diseases like inflammation of spleen or liver³².
 - d. *Nutool* (Irrigation): Also known as *Shirodhara* in Ayurveda³³, *Nutool* involves pouring of medicated oils or decoction over body parts for a given length of time. It is a very effective therapy for relief of stress, pain and spasm. Due to its gentle and simple nature, it can be carried out with minimal medical supervision and is practically free of side effects³⁴. Hence, it is a very effective and popular means of treatment and can be used in almost all age-groups. Unlike other therapies, *nutool* carries no adverse effects even during pregnancy and lactation³⁵.
 - e. *Kayi* (Cauterization): *Kayi* is one of the obsolete therapies in modern day world. Presently, cauterization is used sparingly, mostly to seal bleeding points during surgery, or sometimes for removal of warts³⁶. However, *kayi* in Unani medicine is described for the treatment of a wide spectrum of disorders, particularly when derangement of temperament is so much that it cannot be corrected by drugs alone^{37,38}.
 - f. *Qai* (therapeutic emesis): Emesis, known as *Vamana* therapy in Ayurveda³⁹, is one of the forgotten modes of treatment. However, in Unani medicine, emesis is given immense importance as a means of excreting morbid humors and restoring physiology⁴⁰.

- g. Oral diseases: Oral health and hygiene is an important part of good health ⁴¹. Unani medicine has a description of various medicines which are effective in prevention of oral diseases and maintenance of healthy teeth and gums ⁴².
9. Infectious diseases: Infectious diseases have caused havoc in the present century despite huge developments in antibiotics and antiseptics ⁴³. Unani system of medicine has a description of many drugs of natural origin which have anti-bacterial, anti-viral anti-fungal effects ⁴⁴. Certain drugs are also described which help to clean the environment. More research on such drugs can effectively help in the control of infections ⁴⁵.
10. Chronic diseases: Unani system of medicine can be one of the best treatment options for chronic disorders because it offers a holistic approach to treatment and the constitution and temperament of the individual is taken into account ⁴⁶. Diseases like diabetes ⁴⁷, hypertension, neurological disorders, and even some types of cancers ⁴⁸ can be effectively managed with Unani medicine.

Conclusion

It is evident from the above discussion that Unani medicine has ample opportunities for research and development in various areas of healthcare. With targeted researches, Unani system of medicine has the scope to challenge most of the health problems of present era.

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None

Conflicts of interest

None

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