# Concept of Generalized Anxiety Disorder (GAD)

## in Unani Medicine

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#### **ABSTRACT**

Generalized Anxiety Disorder (GAD) is a prevalent mental health condition characterized by excessive and uncontrollable worry along with a range of physical and cognitive symptoms. This chapter delves into the historical roots of GAD within the framework of Unani Medicine, exploring its definitions, classification, epidemiology, etiopathogenesis, clinical features, comorbidities, differential diagnosis, and management strategies. Special emphasis is placed on the Unani concept of GAD and its traditional principles of treatment.

The historical perspective of GAD within Unani Medicine provides insights into the evolution of diagnostic criteria and therapeutic approaches. Unani Medicine, deeply rooted in ancient Greek and Islamic medical traditions, has a rich history of recognizing psychological conditions, including anxiety disorders, and developing holistic treatment methodologies.

Various Unani physicians have contributed to the understanding of GAD. Their definitions highlight the interconnectedness of mind, body, and environment. This chapter reviews how different Unani scholars have classified GAD based on its etiology, clinical presentation, and psychosomatic aspects.

An exploration of GAD's prevalence in different populations, as seen through the lens of Unani Medicine, provides cultural and geographical insights into the disorder's manifestation. This analysis contributes to a broader understanding of the global burden of GAD.

Unani Medicine offers a unique perspective on the etiopathogenesis of GAD, attributing it to imbalances in the humoral and temperamental factors. This chapter investigates how Unani concepts like "su-e-mizaj" (maltemperament) and saudavi mizaj (melancholic temperament) influence the development of GAD.

By aligning Unani descriptions of GAD symptoms with modern clinical criteria, this chapter highlights the intricate symptomatology described in classical texts. Additionally, it explores Unani insights into the frequently observed comorbidities that accompany GAD.

Unani Medicine's differential diagnosis framework for GAD distinguishes it from similar conditions, emphasizing the importance of understanding underlying causes and individualized diagnostic approaches.

The chapter reviews Unani pharmacotherapies and psychotherapeutic interventions for managing GAD. It underscores the integration of herbal formulations, dietary adjustments, and cognitive-behavioral techniques as integral components of holistic care.

Unani principles of treatment, encompassing the enhancement of "su-e-mizaj" and elimination of morbid humors, are explored within the context of GAD. The chapter investigates the role of dietary management and environmental modifications in restoring balance.

In conclusion, this comprehensive chapter bridges the historical legacy of Unani Medicine with contemporary understanding of Generalized Anxiety Disorder (GAD). By contextualizing the disorder within the Unani framework, the chapter sheds light on the

intricate interplay between psychological, physiological, and environmental factors. Insights into the etiopathogenesis and management of GAD from an Unani perspective offer a holistic approach that may complement modern therapeutic modalities.

#### I. INTRODUCTION

The history of psychiatric disorders begins with the existence of human history. Mental disorders prevailed even in the prehistoric era. The skulls with marks of trephining from different parts of the world are the strong evidence of psychosocial illness that prevailed during pre-historic era. These are considered to be 5000- to 10000 years old. The holes in the patients' skulls were meant to let out the evil spirits which were believed to cause illness and afflictions.(1) The oldest note we found is the document known as the Ebres Papyrus (About 1500 BC). It appears to describe concentration disorder and emotional distress in the heart or mind. Some of these interpretations resemble the description of hysteria and melancholy.(2)

When medical thought flourished, from 500 BC to 500 AD, scientific inquisitiveness was nurtured and it was led by Hippocrate, The Father of Medicine. He was the first man of the scientific spirit. He presented many theories and principles of medicine. He was the first to reject the idea of evil, demon, and superstition. The large-scale accepted theory of four bodily humours was the idea of Hippocrates. He established medicine as a science and offered the idea of pathology in scientific temper. He put forth the concept of psychosomatic diseases. As per his writings, body and minds are inseparable. Every somatic disease has inevitable psychological implications and vice-versa. No any disease is purely either somatic or psychiatric. Consideration of mental health has therefore been an integral part of holistic healing. His immortal contribution to the medical field is the humoral theory. According to Hippocrates, health and body functions are the virtue of four bodily humours. The diseases, including mental disorders, were caused by an imbalance in these four body humours, whether qualitative or quantitative. Based on humoral theory, he categorized the mental disorder into three viz a viz; melancholia, mania, and phrenitis. He had a clear concept of environmental factors, diet, and living habits in disease causation. He was even aware of water, its qualities, and its impacts on the body and health. He advocated non-pharmacological interventions of diseases and maintained appropriate diet, healthy lifestyle to cure the diseases.(3)

Plato (427-437BC) was the first to advocate that any illness is the result of an imbalance between the soul (psyche) and the soma (body). He divided the psyche or soul into three parts; appetite, impulse, and reason; and the seats for these three are in the abdomen, chest, and head, respectively.(4)

Aristotle (384-322 BC), the disciple of Plato, disagreed with the theory of divinely caused mental illness given by Plato. He acknowledged the humoral theory of Hippocrates and pronounced 'qalb' (heart) as the seat of all mental functions and, therefore, the foremost source of causation of mental disorders. (4)(5) (6)

Galen (130-205 AD) of Rome followed the footstep of Hippocrates and defined several syndromes, including dysthymia, paranoia, and the impact of sexual excitement and anxiety in hysteria. He sensed that physical and emotional health was the result of a balance among circulating "humours." As per the reasoning, proposed by Galen, lack of discharge of human semen or uterine secretions would lead to anxiety. (4)(5)(7) (6)

Rabban Tabari, in his book "Firdausul hikmah," has vividly described psychological illnesses into 13 types such as sa'ra (epilepsy), waswasah, hizyan (hallucination), fasad-e-khayal, fasad-e-aql, nisyan (amnesia),bedaari (insomnia), kasrat-e-neend, dawi (tinnitus),duwar (vertigo).(8) Rhazes adopted the same classification in his book "Kitabulfakhir".(9)

Another scholar Al-Farabi emphasized on the therapeutic effect of music on the soul. He mentioned the therapeutic importance of music in healing of psychosocial disorders.

Al-Majusi (930-994 AD), in his masterpiece 'Kamil-us-Sina'ah', gave a clear account of mental diseases, including sleeping sickness, loss of memory, hypochondria, and lovesickness.(10)

The Unani medicine has very vast literature on mental illness. Mental disorders like malekholia (melancholia), subara, qutrub, junoon (schizophrenia), sahar (insomnia), kaboos (nightmare), and ishq (erotomania) were already mentioned thousand years ago.(11–13)

Izterab-e-nafsaniumoomi (GAD) was not a separate entity until the 19th century. Therefore, no any description with this nomenclature is available in ancient text. However, the features of mental stages of melancholia resemble GAD.

Historically, anxiety states were first labeled in the cardiovascular chapters. Da Costa gave the classic description of the syndrome that he called "irritable heart" in 1871.(14)

Till the latter part of the 19th century, anxiety disorders were missing from the classification of psychiatric disorders. The reason behind this is that the classification during that period was made on the basis of patients entertained exclusively in psychiatric hospitals.

Beard, only in 1869, coined the term neurasthenia, when the minor degree of anxiety was clustered with minor depressive disorders. Afterward, Hecker detected that half of his neurasthenia patients suffered from panic attacks spontaneously or in specific situations. Then he gave a clear explanation of anxiety attacks describing palpitations, rapid breathing, dizziness, sweating, and frequency of micturition. Firstly, Westphal identified anxiety disorder in 1871 and defined the syndrome of agoraphobia. In 1895, Freud differentiated anxiety disorders from neurasthenia and proposed the name "anxiety neurosis." The term included simple phobia, agoraphobia, generalized anxiety disorder, and panic attacks.(6)

Two properties are the hallmark of anxiety. Generally, it is an unpleasant emotion, and futuristic feeling. It can be differentiated from fear because it has no obvious source of danger or the emotion is disproportionate to the fear stimulus. Due to the broader meaning of the term anxiety, numerous measures of anxiety have been employed. These include physiologic measures such as galvanic skin response, heart rate and recreation of sweat, self-reports of both symptoms and mental distress, and observer ratings of signs of anxiety. Such measures have been used to distinguish between normal and pathological anxiety. Lader defines pathological anxiety by subjective assessment of the patient that the symptoms are more frequent, more severe, or more persistent than he is accustomed to or can tolerate.(15)

#### II. DEFINITION AND CLASSIFICATION

It is not easy to discuss Anxiety (Tashweesh or Iztirab-e-Nafsani) logically. The reason is that information is incomplete in many areas of normal and abnormal emotions and the associated biological mechanisms. The uncertainty begins with the very nature of anxiety.(16)

Anxiety may be defined as a diffuse, unpleasant, vague sense of apprehension, with or without associated autonomic symptoms. The term anxiety is derivative of the word "anxitas," meaning "troubled in mind". Normal anxiety signals an individual impending danger and empowers one to take precautionary or corrective actions. Pathological anxiety is characterized either by an overstated response to stress or anxiety in the absence of stress.(16)

In Unani medicine, psychiatric conditions are defined in detail under the heading of "amraz-e- nafsaniya," where they defined various symptoms of psychic faculty and their alteration due to the involvement of imbalanced humours, especially "safra" and "sauda".(17,18) Anxiety disorders are, as such, not stated in Unani literature, but their symptoms separately or withother different diseases are described under various headings like "malekholia," "waswas," "mania," "sahar," "tawahhush," "hizyan," "ishq" and "khafqan".(18)(19)(8)(20)

The dictionary meaning of anxiety in the context of Unani medicine, are as follows:

The Arabic language has the word "Izterab," a synonym of anxiety in Arabic.(21) The Unani scholars added the word "Nafsani" to izterab, which denotes its psychological origin. Thus, izterab-e- nafsani means worry, fear, and excessive thinking. It also pronounces the sense of interference in routine work.(22)

Tashweesh: It is a Persian word, and it means difficulty in doing any work. In other words, it is Noun, (ism) masculine (muzakkar), and it means restlessness and worry.

The most commonly experienced emotion is that of anxiety. Apart from the pathologic, the experience of anxiety is necessary to survival. Anxiety is the positive emotion that arises from inside when there is a risk to one's well-being or interests. Fear and anxiety feel the same concerning the subject, but they are different objectively. When the threat of an identifiable external danger in the environment causes anxiety, the term fear is used. Thus, fear is most important in alarming the individual to get ready for protection by taking proper measures. The risk of the loss of a job causes fear, and anxiety is its result.(16)(23–26)

Modern Concept of Anxiety

Anxiety is a typical emotional state responsible for optimal functioning and combating a threatening situation. Normal anxiety is termed pathological when it generates significant subjective distress and/or impairment in the functioning of an individual. The busy life of today's world and tough competitions made anxiety disorder a prevalent illness in society. Due to disturbance in ANS (Sympathetic overactivity), the patient feels akin to fear or apprehension.(16)(24)(27)(28)

Different authors defined anxiety in their books as follows.

"Anxiety is a subjective feeling of apprehension or dread about the present or the future accompanied by a number of autonomic signs and somatic symptoms. As a symptom, it occurs in several disorders. In anxiety disorders, anxiety occurs as a primary, most severe, and prominent symptom without any underlying organic illness or another psychiatric illness.(2)(29)

"Anxiety states often present with somatic symptoms related to autonomic nervous system arousal or sympathetic overactivity or to psychic symptoms or both, which includes nervousness, fearfulness, sleeplessness, dyspnea, chest pain, gastrointestinal distress, and others. The anxiety may be free-floating or situation-dependent, as in phobic disorders, e.g., agoraphobia and other phobias".(27)(30–32)

"Anxiety is a future-oriented mood state in which one is ready or prepared to attempt to cope with upcoming negative events, suggesting that it is a distinction between future v/s present danger that divides anxiety and fear".(3)

"Anxiety is considered to be a normal reaction to stress. It may help a person to deal with a difficult situation, for example, at work or at school, by prompting one to cope with it".(14)

#### III. CLASSIFICATION

The anxiety disorders were not mentioned in separate entities until the late eighteenth century. So, the classification was no easy way to go through. It became controversial, which is reflected in DSM-III. However, this argument has been fixed up to some extent in ICD-10 and DSM-IV. In DSM-V, there are still some differences in the classification from ICD-10. According to DSM-V, anxiety disorders are classified as follows:(33)

Separation Anxiety Disorder

Selective Mutism

Specific Phobia

Social Anxiety Disorder (Social Phobia)

Panic Disorder/Panic Attack Specifier

Agoraphobia

Generalized Anxiety Disorder

Substance/Medication-Induced Anxiety Disorder

Anxiety Disorder Due to Another Medical Condition

Other Specified Anxiety Disorder

Unspecified Anxiety Disorder

The ICD-10 has the following classification:(34)

Neurotic, stress-related, and somatoform disorders

## F40 Phobic anxiety disorders

F40.0 Agoraphobia

.00 Without panic disorder

.01 With panic disorder

F40.1 Social phobias

F40.2 Specific (isolated) phobias

F40.8 Other phobic anxiety disorders

F40.9 Phobic anxiety disorder, unspecified

#### F41 Other anxiety disorders

- F41.0 panic disorder [episodic paroxysmal anxiety]
- F41.1 Generalized anxiety disorder
- F41.2 Mixed anxiety and depressive disorder
- F41.3 Other mixed anxiety disorders
- F41.8 Other specified anxiety disorders
- F41.9 anxiety disorder, unspecified
- F42 Obsessive-compulsive disorder
- F43 Reaction to severe stress and adjustment disorders
- F43.0 Acute stress reaction
- F43.1 Posttraumatic stress disorder
- F43.2 Adjustment-disorders
- .20 Brief depressive reaction
- .21 Prolonged depressive reaction
- .22 Mixed anxiety and depressive reaction
- .23 With the predominant disturbance of other emotions
- .24 With the predominant disturbance of conduct
- .25 With mixed disturbance of emotions and conduct
- .28 With other specified predominant symptoms
- F43.8 Other reactions to severe stress
- F43.9 Reaction to severe stress, unspecified

It is evident that ICD-10 categorized anxiety disorders in two main groups, i.e., phobic disorders and other anxiety disorders. Both are then subdivided. The five phobic disorders are agoraphobia, social phobias, specific (isolated) phobias, other phobic anxiety disorders, phobic anxiety disorder, unspecified. The six other anxiety disorders are panic disorder (episodic paroxysmal anxiety), generalized anxiety disorder, mixed anxiety, depressive disorder, other mixed anxiety disorders, other specified anxiety disorders, anxiety disorder unspecified.

Mixed anxiety and depressive disorder is mentioned separately under the reaction to severe stress and adjustment disorders.

The diagnostic and statistical manual (DSM-V) and the International Classification of Diseases (ICD-10) have four critical differences. In ICD-10, the anxiety disorders are divided into two named subgroups (i) Phobic anxiety disorder and (ii) other anxiety disorder. In DSM-V, phobic disorders are classified simply under anxiety disorders. In DSM-V, OCD is a type of anxiety disorder. In ICD-10, anxiety disorder and OCD have separate places in the classification, which means ICD 10 does not include obsessive-compulsive disorder (OCD) under the group of anxiety disorders. ICD-10 contains a category of mixed anxiety depressive disorder, but DSM-V does not.

Some different authors categorized the anxiety disorder in the following way.(6)(24)(35) 1.Normal or Healthy Anxiety: Most people feel this type of positive anxiety because of uninvited tensions of daily life such as examination, interviews, etc. It is a regular reply to an unusual condition.

- 2. Pathological or Morbid Anxiety: It is an inappropriate response to a given stimulus in intensity or duration. The absolute absence of anxiety is just as pathological as excessive anxiety. The patient is well aware that his fears are silly, unreasonable, and baseless, but this is of no help to him as he amplifies, scrutinizes, and cannot do anything over his anxiety content.
  - 3. Trait Anxiety: This is a habitual tendency to be anxious.
- 4. State Anxiety: This is the anxiety felt at present (a short term), cross-sectional moments (state), and is exemplified by 'I feel anxious now.'

## IV. EPIDEMIOLOGY

Marks and Lader reviewed the epidemiology of anxiety states before the development of detailed diagnostic criteria in 1973. Anxiety states were pretty common and were more prevalent in women (particularly younger women between 16 and 40 years of age) than in men. Lifetime prevalence rates for DSM diagnosable anxiety disorders are 30% in women and 19% in men.(15)(32)

0.9% of adolescents and 2.9% of adults face the 12-month prevalence of generalized anxiety disorder in the general community of the United States. Other countries range from 0.4% to 3.6% in the 12-month prevalence for the disorder. The lifetime morbid risk is 9.0%. Females are double of males in number to experience a generalized anxiety disorder. Middle age is the peak time for the prevalence of the diagnosis and declines across the later years of life. Individuals from developed countries report more than individuals from non-developed countries to have experienced symptoms of generalized anxiety disorder in their lifetime.(33)

Up to 30% of the general population experience mental disorders in which the most prevalent are anxiety disorders with a range from 15% to 25%.(36–38)

GAD is the most prevalent anxiety disorder in the primary care setting, with a lifetime prevalence of 4 - 7% in the general population.(39–41)

The incidence is more common among unmarried than married people, among racial minorities than the member of majority groups and among NDCI of majority groups and among respondents with low socioeconomic status (SES) than middle or high SES respondents.(42)

Patients with GAD tend to have poor social functioning. In the Harvard Brown research program (HARP) study, more than one-third of the patients with GAD were who never got married.(43,44)

Patients were also under-employed compared with the general population.(44)

Anxiety disorders have been reported in 20% of the parents and 10% of the siblings of patients with anxiety. The evidence for a genetic or constitutional predisposition to anxiety is still unsubstantial because of limited data and the ambiguity of diagnostic criteria".(45)

The first comprehensive report by the India State-Level Disease Burden Initiative is horrible. It shows that a significant proportion of India's population is suffering from mental disorders of varying severity including depression, anxiety disorders, schizophrenia, bipolar disorders, idiopathic developmental intellectual disability, conduct disorders, and autism. In a span of 27 years only, the contribution of mental disorders to the total disease burden has doubled between 1990 and 2017. In 2017, 197 million Indians were suffering from mental disorders of whom 46 million had depression and 45 million anxiety disorders. The report was published by The Lancet. (46)

#### V. ETIOPATHOGENESIS

In the Unani system of medicine, the old medical theory or concept of four humours (Akhlat-e-Arba) forms the basis of health and diseases. While giving the details of etiopathogenesis of the disease, it may be caused by an imbalance in any one of four humours, or there may be a combination of more than one humour. The dominant humour similarly determined personality types in a particular person.(47)

The literature of Unani Medicine states a basic theory in the causation of diseases. All the diseases are caused due to three basic factors. They are: altered temperament (su-e-mizaj), altered structure (su-e-tarkeeb) and discontinuity of tissues (tafarruq-e-ittisal). They are groups of factors and are many factors in the further subdivision.(48,49)

The concept of Mizaj is unique to Unani Medicine. The specific and discrete reflection of neuroendocrine, genito-metabolic, and environmental equilibrium at the optimum functional level of adjustment is the normal Mizaj.(50) The derangement in this discrete state subsequently causes disease conditions.(51) The change in the composure of four properties, i.e., haraarat (hotness), baroodat (coldness), ratoobat (moistness), and yaboosat (dryness), can alter the mizaj. It is known as sue mizajsada. If this imbalance affects akhlat (body fluids/humours), it is called sue mizaj maddi.(52) Both conditions produce pathology and affect the faculties.

The theory of humours denotes the presence of four humours in the body viz: blood, phlegm, yellow bile, and black bile. Wordsdamwi (sanguine), balghami (phlegmatic), safrawi (choleric), and saudawi (melancholic) are the mizaj of individuals according to the multitude of humour in them. (53)

The human body has three significant quwa (faculties) viz. psychic faculties (quwwat-e-nafsania), vital faculties (quwwate-e-haivania), and physical faculties (quwwate-e-tabiyya). The specific functions of that organ depend on these quwa (faculties). Nutrition, growth, and reproduction are the functions of Quwwatetabiyya. The liver/jigar heads this quwwat. Quwwatehaiwaniya perform tadbeer of rooh. The roohcarry life to the part it supplies. The heart is the center of this faculty. Quwwat-e-nafsania is concerned with intellect, sensory, and motor functions, and the brain is supposed to be the seat of this faculty. (20)(54,55)

Intellectual, sensory and motor functions of the body are performed by Quwae nafsania (psychic or mental faculties). It consists of two main faculties and stands as a genus for them. These are quwae-e-mudrikah (perceptive cognitive faculties) and quwa-e-mudrikah (motor faculties). Quwa-e-mudrikah (perceptive cognitive faculties) also of two types viz. quwa-e-mudrikahzahira (external perceptive faculties) and quwa-e-mudrikah batinah (internal perceptive faculties). We will discuss internal perceptive faculties, which are concerned with the intellectual functioning of the brain. (20)(54,55)(48)

Ibn Sina (Avicenna) and his followers categorized the internal perceptive faculties in following five: (20)(54,55)(48)

- 1. Faculty of composite sense (Al-hiss al-mushtarak)
- 2. Faculty of imagination (Al-khayal)
- 3. Faculty of apprehension (Al-wahimah)
- 4. Faculty of memory (Al-hafizah)
- 5. Faculty of ideation (Al-mutasarrefah)

Al-hiss al-mushtarak is the faculty where all sensations get assembled, integrated to each other, then a combined action takes place. Memorization and preservation of the configurations of the things are performed by quwat al-khayal.Quwwat Al-wahimah analyses these things and their meaning. Quwat al-hafizah stores the meanings. Quwat al-mutasarrefah creates abstract ideas, imagination, and thoughts. (20)(54,55)

Unani scholars have divided the brain into three areas and their functions, respectively, i.e., forebrain, midbrain, and hindbrain for quwwat-e-takhayyul (faculty of thought), quwwat-e-fikr (faculty of thinking), and quwwat-e-zikr or hafiza(retentive faculty). (19)(10)(22)(54,55)

Kitab al-taiseer of Ibn Zuhar states, "The delirium and alteration of thoughts are due to pathology within the forebrain. The patient starts thinking in an antagonistic way. Minor pathology in the midbrain may result in severe complications such as excessive thinking and mental disorders making the brain incapable of having a proper and precise decision. (56)

Cold and wet temperament render the brain get influenced easily. The brain diseases are either primary due to abnormal temperament of the brain itself or secondary to involvement of its adjacent organs, e.g., heart, stomach, liver, etc. In acute fever, the upward movement of gases from the stomach can also affect the brain. Sometimes the inflammation of the diaphragm or inflammation of the cardiac end of the stomach may cause abnormality of the brain. (9)(17)(56)

According to Ibn-e-Rushd: In the brain, three types of defects are likely to occur: cessation of faculty (Butlaan), deficiency in faculty (Nuqsaan), or altered &exaggerated functioning of faculty (Tashweesh). The causes are different for different disorders. Abnormal cold and wet temperament or abnormal cold temperament only may cease or cause deficiency of these faculties. This abnormal temperament causes hindrance within the vessels and passages, resulting in the rooh not properly penetrating the brain.(19)(17)

Abnormal temperament due to safra (bile) or sauda (black bile) causes altered and improper functioning of these faculties. The disorders of insomnia, incoordination, dementia, abnormal/vicious thoughts are seen in people with the dominance of bilious temperament. (17)

Abnormal black bile causes the disorder, which is mainly referred to as malekholia. its features are palpitation, anxiety, stress, grief, pain, false perceptions, misconceptions, and fear of unknown objects.

Distinguished Unani Physicians have expressed "anxiety" in the context of melancholia. It develops due to humoral disorders such as excess black bile (sauda) or bile (safra). Any of the four humours is lastly transformed into abnormal black bile (Ghair tabayi sauda) by burning due to excessive body heat or its own heat.(10)(13)(22)(57–59)

Different Unani Physicians have also described causes other than humoral derangement, like disturbance of quwwat-enafsaniya. Some of the other causes are epilepsy, hepatic and splenic diseases, failing of quwwat-e-jaziba, quwwat-e-dafiya, excess fear. Sadness-like causes are also included as a general cause of this disorder. Moreover, black bile (sauda) producing diets or foods like the meat of sheep, ass, fox, rabbit, pig or other animals, dried spicy meat is also responsible for this disorder. (10)(18)(60)

In Modern medicine, the exact mechanism of GAD is not yet well understood. Scholars highlighted biological, environmental and psychological factors as contributors to the development of GAD.(10)

#### VI. CLINICAL FEATURES

GAD did not have a distinct identity and separate mentioning till the last 19th century. So, the literature of Unani medicine is also void from GAD specifically. However, when we tried to correlate and search today's GAD, we find abundant literature having similar clinical features and etiology. Thus, we can claim that scholars of Unani medicine were aware of psychiatric disorders, particularly GAD. They have stated clear pathogenesis, clinical features, and management. The initial stage of malekholia in the Unani system has all similarities with GAD. Ibn-e-Sina states about malekholia:

"Signs and symptoms of early-stage of melancholia are apprehensions, unrealistic fear, short temper, fondness of loneliness, palpitation, dizziness, and tinnitus".(10)

The features of the initial stage of malekholia in the words of Razi: "Suffering from worry, apprehension, sadness along with the appearance of irrational thoughts, is suggestive of the initial stage of malekholia".(18)

The symptoms which are mainly present in this disease are: (10)(19)(10)(22)(61)(62)

- Fearfulness
- Excessive worry
- False perceptions
- Low self-esteem
- Vague sense of apprehension
- Social isolation and loneliness
- Lack of interest in virtually all activities
- Irritability
- Heaviness in chest
- Restlessness
- Insomnia
- Irregular small and slow pulse.

The pathology in the brain itself is the primary cause of psychiatric disorders, and secondarily it may be a consequence of heart, stomach, liver, and spleen disorders. As we know, the heart initially produces rooh-e-nafsaaniya as rooh-e-haivaaniya, then it reaches the brain and gets processed as rooh-e-nafsaaniya. Now it is helpful for quwwat-e-nafsaaniya. (10)

The famous philosopher Arastu stated that the heart is the origin of all faculties of the body. This may be the reason that in most of psychiatric diseases, cardiovascular symptoms, especially palpitation, is also present.

Some gastric symptoms are also seen in izterab-e-nafsani umoomi.viz.(22)

- Pain in abdomen
- Indigestion
- Nausea and vomiting
- Burning sensation in epigastria
- Abdominal distention
- Flatulence
- Constipation

#### • Diarrhea

Most actions of quwa-e-nafsaniya are originated by sensory experience emanating a'za-e-mudrikahzahirah (sensory receptors) such as visual, auditory, and other kinds of receptors. (55) So, in addition to the above symptoms, the manifestations related to motor and sensory organs are also present in this disease like: (10)(19)(10)

- Giddiness
- Tremors
- Tinnitus
- Delusion
- Hallucination
- Blurring of vision
- Ringing in ears
- Headache

According to DSM-V, the essential feature of this syndrome (GAD) is frequent, persistent, and unrealistic worry. Patients find it difficult to control this worry. The worry is excessive over tiny matters, with life disputing effects.(53)

All the anxiety symptoms can occur in GAD, but a characteristic pattern comprises those features. The main symptoms of GAD are worry and apprehension, not focused on anything in particular and widespread. The symptoms are pervasive and uncontrollable and known as free-floating anxiety.(45)

These patients often complain of difficulty in concentration, poor memory, irritability, and heightened sensitivity to noise. Poor concentration may feel like poor memory. If actual memory impairment is found, a careful search should be done for a cause other than anxiety. The appearance of these patients is characteristic and includes a strained face, furrowed brow, dilated pupil, widely opened eye, horizontal folds on the forehead, intenseposture, restlessness, sweating (especially from the hands, feet, and axillae). (63)

GAD's physical symptoms and signs are due to the overactivity of the sympathetic nervous system and increased tension in the skeletal muscles. Muscle tension may be experienced as restlessness, trembling (tremor), muscular pain, headache (usually bilateral, frontal or occipital).

Autonomic hyperactivity is characterized by sweating, palpitation, dry mouth, epigastric discomfort (stomach upset), giddiness, and lightheadedness.

Gastrointestinal symptoms commonly include a dry mouth, excessive wind (flatulence) due to aerophagy, borborygmi, and increased stool frequency (diarrhea).

Respiratory symptoms commonly include constriction in the chest, difficulty in inhaling, paradoxically a feeling of shortness of breath, and over-breathing. Its consequences include dizziness, tinnitus, headache, numbness and tingling, carpo-pedal spasm, and precordial discomfort.

Cardiovascular symptoms commonly include palpitations, discomfort or pain over the heart, and troubling in the neck.

Genitourinary symptoms commonly include increased frequency and urgency of micturition, failure of erection, and lack of libido. Women may complain of menstrual irregularities and discomfort.

Central nervous system (CNS) complaints include tinnitus, vision blurring, pricking sensation, and dizziness. Sleep disturbance may present as difficulty in falling asleep (initial insomnia). Sleep is often unsound and accompanies irksome dreams. Night terrors may wake the patient up suddenly with intense anxiety. Early morning waking (late insomnia) is not a feature of GAD, and its presence strongly suggests a depressive disorder.

Other features (i.e., other less prominent symptoms of GAD) – Include: tiredness, depressive symptoms (such as suicidal tendency), obsessional symptoms (such as ruminative repetitive thoughts), and depersonalization (where an individual feels himself unrealistic). These symptoms are never the most prominent features of GAD. If they are prominent, another diagnosis should be considered. (64)

GAD is often present with a long history of generalized anxiety, sometimes even dating back to childhood. The onset of GAD is usually before the age of 20, as suggested by respective reports from survey respondents and patients in clinical studies. A small number of patients may report onset after the mid30's. Stressful life events play a strong role in GAD in adulthood and GAD occurring later in life. The ICD 10 has short duration features for diagnosis, but DSM V says at least six months of symptoms is essential for the diagnosis of GAD. The community epidemiological data collected in the epidemiological catchment area (ECA) show that the duration and course of GAD are typically chronic, with episodes commonly persisting for a decade or longer.(65)

#### COMORBID CONDITIONS WITH GAD

Earlier, GAD was a comparatively minor problem unrelated to a high degree of distress and impairment; recent data suggest high comorbidity with other psychiatric illnesses. Research says that GAD is rarely present in isolation.(16)

The NCS estimated that 65% of persons with current GAD had at least one other disorder at the time of assessment. The "pure" GAD without comorbid psychiatric conditions constitutes only about one-third of the total prevalence.(66)

Major depressive disorder (MDD), as estimated at 42%, is the most common comorbid condition associated with GAD. (44)

The other mental disorders usually identified with GAD include social phobia (23%), dysthymia (22%), specific phobias, and panic disorder (11%), post-traumatic stress disorder (PTSD), and obsessive-compulsive disorder (OCD) (6.5%). Substance abuse disorders are also a common comorbid condition (16%).(67)

GAD is also highly comorbid with chronic diseases, including coronary heart disease, hypertension, asthma, and diabetes mellitus.

#### VIII. DIAGNOSIS

Confirming the diagnosis of GAD is very troublesome. Patients' long list of complaints, similarities to other psychiatric and medical disorders, and overlapping of symptoms make the diagnosis very difficult. The presence of other mental illnesses as comorbidity adds to the misery. To solve this problem, two primary diagnostic tools are used by healthcare workers worldwide to detect GAD. They are the international classification of mental and behavioral disorders (ICD 10) and the Diagnostic and Statistical Manual of Mental Disorders (DSM V). Recent revisions of both ICD-10 and DSM V have provided healthcare practitioners more accurate and reliable diagnosis of GAD.(67)

DSM V has specified the diagnostic criteria for the diagnosis of GAD. (53)

The excessive anxiety and worry must occur for not less than six months about many events and pursuits. The person discovers it challenging to control the worry. Minimum three of six symptoms (at least some present for more days than not for the past six months). These symptoms include:

- (1) Restlessness or feeling keyed up or on edge
- (2) Being easily fatigued
- (3) Difficulty concentrating or mind going blank
- (4) Irritability
- (5) Muscle tension
- (6) Sleep disturbance (difficulty falling or staying a sleep, or restless unsatisfying sleep).

Both DSM IV and ICD 10 recommended almost similar criteria for the diagnosis of GAD, but they have a different duration for these symptoms. DSM V requires the symptoms to be present for six months. However, the clinical version of ICD 10 has the less stringent requirement that symptoms should have been present for most days for at least several weeks at a time and usually several months.(68)

#### IX. DIFFERENTIAL DIAGNOSIS

Anxiety symptoms may occur in any psychiatric disorder, but there are some in which particular diagnostic difficulties arise. The most frequent problem is the distinction between anxiety and depressive disorders because anxiety is a common symptom in depressive disorders, and GAD often includes some depressive symptoms. The other standard co-occurring disorders must be explored, including panic disorder, phobic disorder, and obsessive-compulsive disorder. (68)

The physical illnesses that mimic GAD's symptoms are thyrotoxicosis, pheochromocytoma, hypoglycemia, paroxysmal arrhythmias, brain tumors, and temporal lobe epilepsy. Stimulant intoxication for caffeine, cocaine, amphetamines, exposure to toxins, or withdrawal from sedatives or alcohol is other organic causes for anxiety syndrome. (69)

#### X. MANAGEMENT

Management of GAD can be divided into two main categories: Pharmacotherapies and Psychotherapies

#### A. Pharmacotherapies

Many effective pharmacological treatments are available now for the treatment of GAD. Recently developed drugs are not only more effective than placebo, but also safer and more tolerable than other older medicines. Current medication groups are: benzodiazepines, buspirone, tricyclic anti-depressants (TCAs), selective serotonin reuptake inhibitors (SSRIs) and serotonin nor-epinephrine reuptake inhibitors (SNRIs) among others.<sup>13</sup>

### B. Psychotherapy

The critical point in psychotherapy is the formation of an excellent therapist-patient connection. The sources of entertainment and attention diverting techniques are helpful in psychotherapy. Hippocrates cited the importance of enjoyable environments, exercise, proper diet, massage, baths, melody, and other approaches to treating mental disorders. Efficacy of medication can be increased, and the likelihood of remission for someone who has discontinued medication by psychotherapy. Controversy is only between the effectiveness of psychotherapy alone or in combination with pharmacotherapy. In comparison to pharmacotherapy, psychotherapeutic interventions have superior long-term efficacy, as the meta-analysis of studies shows. These are Counseling, Relaxation Training (Techniques), Meditation, Supportive psychotherapy, Exposure Treatment, Cognitive behavioral therapy (CBT)

#### XI. USOOLE ILAJ AND ILAJ

Unani system of medicine has a well-designed system of treatment. Each scholar firstly describes the usool-e-ilaj principle of treatment or line of treatment. Afterward, the treatment or prescription is written. The fundamental principle in the treatment is to reinstate the patient's condition, correct mizaj, and restore the lost equilibrium of humours by evacuation of excessive and deranged humors.

Unani physicians prescribed the following pattern of treatment in the management of Izterab-e-NafsaniUmoomi.

- A. First and foremost is the restoration of mizaj of patient and elimination of absurd humour.
- B. Removal of the underlying causes.
- C. Dietary management.
- D. Pleasant environment.

## Improvement of su-e-mizaj and elimination of absurd humors

Su-e-mizaj is considered the fundamental cause of Izterab-e-NafsaniUmoomi. Identifying the dominating humour (khilt) is necessary with the help of various parameters laid down by the Unani physicians and appropriate drugs to remove that deranged humour (FasidKhilt). Eminent Unani physicians favor that anxiety results in excessive black bile (sauda), and thus, it has to be excreted from the body to maintain the balance of humours in the body. Excretion can be done with the help of fasd and purgatives like Joshanda-e-Aftimoon and Maa'ul Jubn. (70)(22)

Ta'deel-e-mizaj means normalization of mizaj and restoring physiological functions. It is done after eliminating the akhlat-e-raddiyah from the affected organ. The altered temperament is returned to normalwith brain tonics alone or in association with tadabeer. (10)(56)(12,56,57)

Su-e-mizaj haar sada denotes excess hararat (heat) in the body, particularly in the brain. So, to reduce haraarat-e-dimagh, some regimes are used to produce baroodat (cold), and also some drugs of cooling effect, such as musakkinat-e- hararat (febrifuge) are used.

#### Removal of predisposing causes

The other important step is eliminating all other factors such as excessive fear, stress, excessive physical exertion, alcoholism, loneliness, etc.

The following measures are adopted for the purpose: (10)(56)(12,56,57)

- A source of pleasure should be provided, like poetry, melody, for keeping patients happy.
- Maintenance of pleasant atmosphere.
- The room should be well ventilated, calm, and aromatic.
- Correction of liver and spleen disorders.
- Avoidance of alcohol consumption, smoking, etc.
- Abstinence from excess coitus.
- Avoidance of heavy and strenuous work.
- Avoidance of visiting crowded, dark, and dirty places.
- Escape of continued visit to hot climates.
- Heartcare is the mainstay in anxiety. Cardiotonic and exhilarant drugs (mufarreh-e-qalb)must be added to the prescription.

#### Dietary management: (10)(56)(12,56,57)

- Avoidance of all moallid-e-sauda and Safra (bile and black bile productive) like stale, salty, and stringent food items.
  - Intake of light and delicious food items.
  - Use of bilious concoctive fruits such as aalo bukhara, orange, lemon, etc.

Besides it, there are several anti-anxiety drugs available in Unani medicine for the treatment of anxiety disorder. These drugs contain sedative and hypnotic properties, e.g., Asrol (R. serpentine), Koknar (Poppy capsule), Opium, Kahu (Lactuca sativa), Coriander, and Ajwainkhurasani (H. niger), etc.; and compound drugs such as Khameera Khashkhas, Itrifal kishnizi, Qurs dawa-us-Shifa. These mentioned drugs are very beneficial for anxiety disorder.

## Mufradat and Murakkabat generally used by Unani physicians: (10)(56)(12,56,57)(57)

Behidana	Quince Seeds	Cydonia oblonga
Khurfa	Purslane	Portulaca oleracea
Kaddu	Pumpkin	Cucurbita moschata
Tabasheer	Bamboo Manna	Bambusa arundinace
Aalu Bukhara	Common Plum	Prunus domestica
Kishneez	Coriander	Coriandrum sativum
Tamar Hindi	Tamarind	Tamarindus indica
Kahu	Lettuce	Lactuca sativa
Khivarain	Cucumber	Cucumis sativus
Bed Mushk	Mushk Willow	Salix capera
Gule surkh	Rose Flower	Rosa damascene
Nilofar	Water Lily	Nymphaea alba
Bekhe Kasni	Wild Chicory root	Cichorium intybus
Unnab	Jujube	Zizyphus Vulgaris
Zarishk	Indian Barberry	Berberis vulgaris
Afsanteen	Worm Wood	Artemisia absinthium
Sana Makki	Mecca Senna	Cassia Angustifolia

Sibr Zard	Aloe	Aloe barbadensis
Aftemoon	Dodder/Cuscuta	Cuscuta reflexa
Badranjboya	Mountain Balm	Melissa parviflora
MaweezMunaqqa	Large Raisin	Vitis vinifera
Ustukhudoos	French Lavender	Lavendula stoechas
Badavard	Cretan Prickly Clover	Fagonia arabica
Gaozaban	Borage	Borago officinalis

Polyherbal formulations used by Unani physicians include Mufarreh Barid, Dawaul Misk Moatadil, Joshanda Aftimoon, Majoon Najah, Majoon Lana, Itrifal Sagheer, Itrifal Zamani, Sharbat Ahmad Shahi, Sharbat neelofar, etc. (70)(71)(72)

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