ISSN: 2320-2882

IJCRT.ORG



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Unlocking The Healing Potential Of Unani System Of Medicine In Depression : A Review

¹Malik Kashif, ²Momin Arsheen, ³Mahjabeen, ⁴Arshiya Begum

¹²³⁴P.G. Scholar of Department of Ilmul Advia (Pharmacology),

Government Nizamia Tibbi College, Hyderabad, T.S.

ABSTRACT :

Depression is a common worldwide problem, with an Estimated 350 million people affected. Depression is the presence of Persistent sadness and a loss of interest in Activities that a person normally enjoys, accompanied by an inability to carry out daily Activities, for at least two weeks. The term "Malikhulia" (Melancholia) is often used in Unani Medicine to describe depression. Melancholia is a common psychiatric term, and depression Is a more recent term for melancholia, People used the terms Depression and Melancholia Interchangeably in the 19th century. In contrast to conventional antidepressant medications, which are known to Exhibit numerous side effects, the Unani system of medicine offers a promising alternative And shows significant potential in addressing depression. In this poster review we have tried to explore classical literature of Unani System Of medicine and scientific publications based on experimental studies. Unani medicine provides holistic framework that encompasses Ilaj bil Ghiza (treatment through diet and nutrition), Ilaj bid Dawa (treatment through Medications and herbal remedies) which includes unani single drugs (Mufradat) like Ustukhuddus (Lavandula stoechas), Aftimoon (cuscuta reflexa), etc. And compound drugs (Murakkabat) like Majoon e najah, Sharbate ahmad shahi, itrifal Ustukhuddus, etc. Ilaj bit Tadbeer (treatment through regimen And lifestyle modifications) which includes Dalak (Massage), Shamoom (Inhalation), Saoot (Snort), Hamam (Bath). It suggests that the healing techniques of Unani system of medicine Have shown promising potential in the treatment of depression.

1. INTRODUCTION :

Depression is a common worldwide problem, with an estimated 350 millions People are affected. Depression is the presence of persistent sadness and a loss of Interest in activities that a person normally enjoys, accompanied by an inability to carry Out daily activities, for at least two weeks ^{[1][2]}. It is different from the usual mood fluctuations Or temporary sadness in response to challenges in everyday life. It is the third Leading cause of global burden of disease. Depressive disorders include two main sub-categories :

1.1. *Major Depressive Disorder / depressive episode*, which involves symptoms Such as depressed mood, loss of interest and enjoyment, and decreased energy Depending on the number and severity of symptoms, a depressive episode can be Categorized as mild, moderate, or severe;

1.2. Dysthymia, a persistent or chronic form of mild depression; the symptoms of Dysthymia are similar to depressive episode, but tend to be less intense and last Longer^[34].

Depression can occur at any time, but on average, first appears during the late Teens to mid-20. Depression affects an estimated one in 15 adults (6.7%) in any given. Year and one in six people (16.6%) will experience depression at some time in their life^[3].

A study by the India State-Level Disease Burdon Initiative showed that the Disease burden in India due to mental disorders increased from 2 2.5% in 1990 to 4.7% in DALYs1 (Disability-adjusted life years), 2017 in terms of I and was the leading contributor Io YLDs (years lived with disability) contributing to 14.5% of all YLDs in the country (India State-Level Disease Burden Initiative, 2017), The prevalence of depression and Anxiety disorders, as well as eating disorders, was found to be significantly higher Among women. The association between depression and death by suicide was also Found to be higher among women.

In 2017, the President of India, Ram Nath Kovind asserted that India was "facing A possible mental health epidemic". A study revealed that in the same year, 14% of India's population suffered from mental health ailments, including 45.7 million suffering From depressive disorders and 49 million from anxiety disorders. Mental disorders place A considerable economic burden on those

suffering from them – the National Mental Health survey (2015-16) revealed that the median out-of-pocket expenditure by families On treatment and travel to access care was Rs. 1,000-1,500 per month^[35].

Commonly used medication are Selective serotonin reuptake inhibitor (SSRI), Monoamine oxidase inhibitor (MAOls), Tricyclic antidepressant drugs (TCAs), Psychotherapies, Electroconvulsive therapy (ECT), Light therapy and drugs. The most commonly used medications, often referred to as second-generation Antidepressants, are the SSRIs and the SNRIs, which have less toxicity and improved safety compared to the first-generation drugs, which include MAOls and TCAs (Millan, 2006; Rush et al., 2006).

2. UNANI CONCEPT :

The term "Malikhulia" (Melancholia) is often used in Unani concepts to describe Depression. Melancholia is a common psychiatric term, and depression is a more recent Term for melancholia." People used the terms Depression and Melancholia interchangeably in the 19th Century^[4].

Hippocrates, a Greek philosopher who lived around (460-357 B.C.), proposed That the human body has four primary fluids: blood, black bile, yellow bile, and phlegm. When these fluids in a person's body were out of balance, they were ill^[6]. Someone Suffering from an excess of black bile would feel sad and scared. This is known as Melancholia in Greek. It was the first time a name for depression was used, as well as The first time depression was investigated.

Melancholia is no longer classified as a separate mental health condition. Instead, it is listed as a specified for depressive disorders in the Diagnostic and Statistical Manual (DSM-5). Instead of being diagnosed with melancholia, people are More likely t to be diagnosed with major depression Disorder (MDD) with melancholy Symptoms^[36].

In his world-renowned work "Kitab A-Havi," Zakaria Razi quotes Galen (Jalinus). Is defined as a mental disorder in which the affected person's mental functions are Disrupted and they are more prone to persistent grief, fear, and suspicious hostility. His Ability to process and interpret information has been severely harmed^[37]. The Melancholia caused Mainly due to excessive accumulation of (Sawda) black bile or Deterioration In its quality.

Three type of Melancholia in Unani literature:

2.1. Melancholia caused by accumulation of black bile (Sawda) in the brain

2.2. Melancholia caused by the accumulation of black bile (Sawda) in whole body

2.3. Melancholia Maraqi This type of disorder occurs when burnt humour get

Accumulate in the peritoneum because of internal heat and leads to the formation Of Bukharat (gases) of bad quality. These vapours cause the disturbance in the Brain. It's possible English equivalent is psychoneurosis^[7,38].

3. PURPOSE OF THE STUDY :

Depression is a common worldwide problem, with an estimated 350 million people are affected. It is the third leading cause of global burden of disease. By 2030 depression will represent the largest burden of disease in Socio-economic countries. 13 % of the world's population suffers from mental health or emotional issues.

Some clinically important adverse effects of antidepressant drugs such as Dizziness, orthotics, arrhythmia, drowsiness, palpitations, blurred vision, tachycardia, headache, constipation, diarrhoea, nausea, insomnia, hypotension, epigastric, disturbance, dryness of mouth, weight gain, agitation, sexual problems, nervousness, etc^[39].

In contrast to conventional antidepressant medications, which are known to exhibit numerous side effects, the Unani system of medicine offers a promising alternative and shows significant potential in addressing depression.

4. METHOD OF STUDY:

We searched the classical Unani textbooks. Also, we searched electronic databases PubMed, MEDLINE, ScienceDirect, Springer.

Keywords used for the search were 'depression' in combination with 'prevalence', 'Unani concept', 'Unani medicine in depression'.

5. HISTORY OF DEPRESSION :

The Greco-Roman culture attempted to systematise sadness as "melancholia" by using the tradition of the four humours, This notion remained an essential aspect of European and Islamic medicine until the 19th century, when it fall out of scientific favour. In his 1890 psychology encyclopaedia "Psychiatrie, " Emil Kraepelin provided a well-known scientific description of depression. Although depression has been known for over 2000 years (Melancholic Is described in the writings of Hippocrates), there is still uncertainty as to its medical status as a disease state

JCR

(kraepelinian concept)^[40].

The term Depression is derived from Latin verb depriver. "To press down". The literal sense "act of pressing down, state of being pressed down" is attested from 1650s. he meaning "dejection, state of sadness, a sinking of the spirits" is from early 15c,1) In 1856, French psychiatrist Louis Delasiauve used the term to refer to a psychiatric ailment, and by the 1860s, it was being used in medical dictionaries to indicate to a physiological and metaphorical reduction of emotional function. "Melancholia has been associated with individuals of scholarship and intellectual prowess since Aristotle. It became more connected with ladies in the 19h century^[41].

The WHO's Mental Health Action Plan 2013-2030 outlines the steps that must be Taken to provide effective interventions for those suffering from mental illnesses such as Depression. The WHO's Mental Health Gap Action Programme includes depression Of the priority conditions (mhGAP). The program's goal is to assist countries Improve services for persons with mental, neurological, and substance use disorders by allowing non-mental health professionals to care for them^[5].

6. ETIOLOGY OF DEPRESSION :

Depression's cause is unknown, however it will undoubtedly be multiple. There Are several suggestions about biogenic amine anomalies in major depressive illnesses. However there isn't enough evidence to back them up. Depression is caused by a variety of factors. Rather, a mix of genetic, Physiological, environmental, and psychological factors are most likely to blame. According to research, depressive diseases are brain disorders. The brains of persons With depression seem different than those who do not have depression, according to Brain imaging (MRI). The areas of the brain that control mood, thinking, sleep, food, and Behaviour appear to be malfunctioning. Furthermore, crucial neurotransmitters the Chemicals that allow brain cells to communicate appear to be out of balance. However, these scans do not show the cause of the depression. Some forms of Depression run in families, and the risk is linked to the interaction of several genes, as Well as environmental and other variables^[42]. It can, however, happen to persons who Have never had a family history of depression. A depressed episode might be triggered By trauma, the loss of a loved one, or any other stressful situation^[43].

7. SYMPTOMS OF DEPRESSION :

THE DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS 5THEDITION (DSM-5), classify a depressive episodes as a two week period in which the Patient experience the following symptoms.

- Depressed mood
- Weight loss
- Diminished interest or pleasure
- Insomnia or hypersomnia
- Psychomotor agitation or retardation
- Fatigue or loss of energy
- Feeling of worthlessness or excessive or inappropriate guilt
- Diminished ability to think or concentrate or indecisiveness
- Recurrent thoughts of death, recurrent suicidal ideation without specific plan, or a
- Suicide attempt or a specific plan for committing suicide^[44,45].

8. TREATMENT (ILAJ) :

Unani system of medicine provides holistic framework that encompasses ;

- llaj bil Ghiza (treatment through diet and nutrition),
- llaj bid Dawa (treatment through medications and herbal remedies),
- Ilaj bit Tadbeer (treatment through regime and lifestyle modifications).

8.1. Ilaj Bil Ghiza (Treatment through diet and nutrition) :

8.1.1. Aghziya Latifa: Food stuffs which are easy to digest. Such as:

- Meat of small birds, chicks and fishes.
- Nakhud (Bengal gram) cooked with rose and cumin.
- Brains of all animals.
- Kernels of different nuts.
- Refined wheat tortillas.
- Sweetened yogurt.
- Juices of watermelon, apple, pomegranate, grapes, etc^[7,10].

8.2. Ilaj Bid Dawa (Treatment through medication and herbal remedies) :

There are many unani herbs and formulations use to treat depression in Unani system of Medicine. There are some Mufradat (Sibgle drugs) and Murakkabat (compund drugs);

8.2.1. MURAKKABAT (COMPOUND DRUGS)^[10]:

- Itrifal Kishneezi
- Itrifal Kabeer
- Irtifal Ustukhudoos
- Itrifal Muqawwi-e-Dimagh
- Khameera Gaozaban
- Khameera Marwareed
- Majoon Muqawwi-e-Dimagh
- Majoon-e-najah^[9]
- Sharbat-e-Ahmad Shahi^[8].

8.2.2. MUFRADAT (SINGLE DRUG) : (Table 1)

Table 1 : Single Drugs use for depression in unani system of medicine.

Drug name	Botanical name	Pharmacological study	Dose
	ALX.		
Aftimoon ^[11,17]	Cuscuta epithymum Linn.	 Anticonvulsant activity^[18] Anxiolytic^[19] 	7-14gm. ^[12]
Asgand ^[17,20]	Withania somnifera Linn.	 Mood stabilizer^[21] Anti-stress^[22] Anti-depressant Anxiolytic^[23] 	lgm with Milk. ^[20]
Badranjboya ^[13,14,15,25,26]	Nipeta hisdostana haines	Anxiolytic ^[27]	5-7gm.
Amla/ Amlaj ^[12,13,16]	Emblica officinalis	 Antidepressant Antioxidant^[24] 	3-5gm.
Barahmi ^[16,17]	Bacopa monnieri (Linn.)penn.	Anxiolytic Antistress ^[28]	3-5gm.
Halyla/Haleela ^[12,25]	Terminalia chebula	Anxiolytic	3-5gm,
	Retz.	• Antidepressant ^[29]	5-10gm.
Ustukhuddus	Lavandula stoechas L.	• Neurotonic ^[30]	5-10gm.

8.3. Ilaj Bit Tadbeer (Treatment through Regime and lifestyle modification) :

Unani system of medicine is enriched with many regimens which can be successfully adopted for management of Depression. Which includes ;

8.3.1. Dalak (Massage)^[33]:

Head massage have very promising results in depression to relax the mind and reduce the stress. Dalak-e-Khashin (Massage with rough cloth) this type of massage is very effective in depression. .Many oils (Roghan) are use for Massage in Unani system of Medicine such as ;

- Roghan-e-Banafsha (viola odorata)
- Roghan-e-Gul (rosa damascena)
- Roghan-e-Qaranphal (Eugenia Cryophyllata)

8.3.2. Fasad (Venesection)^[7]:

Venesection is a medical procedure that involves the removal of blood from specific veins in the body.

By removing blood from following veins, the accumulated black bile can be eliminated from the body, which can help to alleviate symptoms associated with Depression.

- <u>Rag-e-Basaleeq</u> (Basilic vein
- <u>Rag-e-Safin (Saphenous Vein)</u>
- <u>Rag-e-Akhal (right median cubital vein)</u>

8.3.3. Shamoom (Inhalation)^[10]:

Inhalation of certain essential oils through snorting has been found to be a highly effective method for treating depression. Essential oils such as lavender, bergamot, and chamomile have been shown to have mood-lifting properties and can help alleviate symptoms associated with depression.

When inhaled, these essential oils stimulate the olfactory system, which sends signals to the limbic system in the brain. The limbic system is responsible for regulating emotions, which is why inhaling these oils can have a positive impact on mood.

- Seb (Malus sylvestris)
- Ambar (Ambra grasea)
- Gulab (Rosa damascena).

8.3.4. Saut (Snort)^[7,33] :

Using essential oils by snorting them can help alleviate depression symptoms.

- Roghan-e- Banafsha (viola odorata)
- Aab-e-post-e-Kaddu (Cucurbita pepo)
- Roghan-e-Gaon (borago officinalis)
- Roghan-e-Gulab (rosa damascena).

8.3.5. Hijama (Cupping therapy)^[31] :

Since, the cause of malankholia, the Unani equivalent of depression, is thought to be Sauda-e-Ghair Tabai, it ought to be eliminated from the body to cure the diseased condition. For, this purpose wet cupping was opted as the treatment modality, which is used for local evacuation or diversion of morbid humors.

In wet cupping or the Hijamah bish-Shurt, besides the application of cups, a few usually superficial incisions are made at the site of cupping. According to Ibne Sina, wet cupping results in evacuation of morbid humors from the particular organ where it is done but conserves of the Jawhar-e-Rooh and does not interfere with the vital organs.

8.3.6. Riyazat (Exercise)^[32]:

Scientists at Duke University Medical Center tested exercise Against antidepressant medicine. They found that exercise is Better therapy for keeping symptoms away from coming back After the depression lifted. This report followed earlier Research in which 156 adult volunteers had taken part in a Four-month comparison of exercise antidepressant, or a Combination. The exercise primarily consisted of brisk Walking, stationary bike riding, or jogging for 30 minutes, Plus a 10-minute warm-up and 5-minute cooldown, three Times a week.

8.3.7. Nutul (Irrigation)^[7]:

Nutool therapy, also known as irrigation is a popular mode of treatment in Unani medicine which refers to the pouring or dripping of drugs on body parts. Usually decoctions of drugs and medicated oils etc are used for this purpose.

8.3.8. Hamam-e-Ratab (Bath Therapy)^[7]:

Bath therapy can be an effective and natural way to treat depression. It promotes relaxation, reduces stress levels, improves circulation, and detoxifies the body. Mostly Hamam-e-Ratab is more effective. Also The Milk use for pouring on head.

The head is immersed in water containing medicine such as ;

- Banafsha (Viola odorata Linn.)
- Nilofer (Nymphae alba)
- Barg-e- kahu (Lactuca sativa)
- Jau muqashshar (Hordeum valgare)
- Post khashkhash (Papaver somniferum)
- Barg-e-Baboona (Matricaria chamomilla)

9. CONCLUSION :

Depression is a serious individual and community health problem because it is the most frequent mental disorder in this century. It has a high rate of chronicity and recurrence.

It is also a significant risk factor for suicide, and causes workforce loss. Burden of depression and other associated mental health conditions is on upswing globally. Approximately 80% of depressed people are not currently having any treatment. There is long term course of treatment in modern medicine and the side effect of anti- psychotic drugs is well known.

Unani system of medicine is enriched with many regimens which can be successfully adopted for management of Depression.

There are a lot of Unani medicine (single and compound drugs) and techniques for example Tila (paste), Dalake Khashin (Massage with rough cloth), Nutool (irrigation), Shamoom (Inhalation), Bath (Hamam-e-ratab), Saoot (Snort), Hijama (Cupping therapy) and Riyazat (Exercise).

By these ultimate and natural Tadabeer we can challenge these disorders. It suggests that the healing techniques of Unani system of medicine have shown promising potential in the treatment of depression. Further researches are required On drugs and techniques for their important role in depression, mood disorders, Stress and other disorders on modern parameters to validate these statements.

REFERENCES:

- 1. Depression. World Health Organization, Geneva, WHO Media centre: EM/MNH/219/E.
- 2. Group interpersonal therapy for depression: 2016, World health organization.generic field trial version 1.0.216. Series on Low-Intervention-3Low- Intensity Psychological.
- 3. Anonymous; Depression: American psychiatric Association 2022. Maine Avenue, S.W., Suite 900, Washington, DC 20024.
- 4. Melancholia. lssues Treated In Therapy; Good Therapy.Org Last Update: 09-19-2018.
- 5. Depression/Fact sheets/Detail, World Health Organistion. September 2021.
- 6. Hippocrates. Fusool-e-buqratiya (the aphorisms of Hippocrates), translated intoArabic by Hunain ibn Ishaq. Calcutta: Education Press, 1832.
- 7. Kabiruddin HM. Moalijat Sharah Asbab (Tarjuma Kabir), Idara-e-Kitabu-shifa, Daryaganj, New Delhi-2, P 87.
- Afshan Khan, Aisha Siddiqui, M.A Jafri, Mohd Asif; Sharbat Ahmad Shahi: A Potent Unani Formulation for Mood Disorders, International Journal of Scientific Research in Biological Sciences Vol.5, Issue.6, pp.199-211, December (2018).
- Zeba Afrin, Aisha Siddiqui, M.A. Jafri, Mohd. Asif and Hushan Jahan; MAJOON NAJAH: A POTENT UNANI FORMULATION FOR NEUROLOGICAL DISORDERS, European Journal of Biomedical AND Pharmaceutical sciences, ISSN 2349-8870, Volume:4, Issue:7 198-206, Year: 2017.
- 10. Usama Akram, Bilal Ahmad, Neelam Quddusi1, Azma Kausar, Mohammed Fazil and A A Khan; Mental Health through Unani Medicine, ACTA SCIENTIFIC Neurology (ISSN: 2582-1121) Volume 3 Issue 9 September 2020, P 68.
- 11. Jurjani I. Zakhira Khwarizm Shahi, Volume 10, (Urdu translation), Matba Munshi Naval Kishore, Kanpur (1889): 7-9.
- 12. Ibn Sina. Al-Qanoon fi al-Tibb, Jamia Hamdard, New Delhi (1987): 52.
- 13. Baghdadi I H. Kitab al-Mukhtarat, Daira Ma'arifa Usmania, Hy-derabad (1364): 139.
- 14. Ibn Baitar. Al-Jami Li Mufradat al- Advia wa al-Aghziya, Volume I, Central Council for Research in Unani Medicine, New Delhi 73 (1985): 94-96.
- 15. Shirazi MMH., Makhzan al-Advia, Matba Ahmadi, Shahdara, Delhi 1278 AH: 89-90, 109, 127, 562-563.
- 16. Nabi G. Makhzan al-Mufradat wa Murakkabat, Central Council for Research in Unani Medicine, New Delhi (2007): 34, 41, 64, 149, 204, 247.
- 17. Ghani NM. Khazain al-Advia, Idara Kitab al-Shifa, Delhi. NM: 366, 839, 1116, 1135.
- 18. Gupta M., et al. "Studies on brain biogenic amines in methano-lic extract of Cuscuta reflexa Roxb and Linn seed treated mice". Acta Poloniae Pharmaceutica-Drug Research 60.3 (2003): 207-210.
- 19. Thomas S., et al. "Evaluation of anxioltic effect of whole plant of "Cuscuta reflexa". WorldJournal of Pharmacy and Pharmaceutical Sciences 4.8 (2015): 1245-1253.
- 20. Safiuddin SS. Unani Mufradah Advia, Taraqqi Urdu Bureau, Delhi (1993): 33, 74-75.
- 21. Attari M., et al. "Effect of Withania somnifera Dunal Root Extract on Behavioral Despair Model in Mice: A Possible Role for Nitric Oxide". Acta Medica Iranica 54.3 (2016):165-172.
- 22. Khare CP. "Indian Medicinal Plants-An Illustrated Dictionary". 1st edition. New York: Springer (2007): 652-665,717-718.

- Ninadh Malrina D'Costa., et al. "Antidepressant Activity of Ethanolic Extract of Whole Plant of Ashwagandha (Withania somnifera), a Popular Medicinal Plant of Indian Subcontinent". Asian Journal of Biological and Life Sciences 3 (2012): 247-251.
- 24. Dhingra D., et al. "Possible involvement of monoaminergic neurotransmission in antidepressant like activity of Emblica officinalis fruits in mice". CNS Neuroscience and Therapeutics 18 (2012): 419 425.
- 25. Antaki D. Tazkira Ulil al-Baab, Volume I (A), Printed by Central Council for Research in Unani Medicine, New Delhi (2008): 114, 122, 137-138, 531, 642.
- 26. Khan MA. Muheet-I Azam, Volume I, (P), Matba Nizami, Kan-pur (1303): 244-245.
- 27. Bora KS and Dubey A. "Evaluation of anti-anxiety activity of M parviflora (Benth.) in rats". The Thai Journal of Pharmaceutical Sciences 39.3 (2015): 70-75.
- Anju. "Bacopa monnieri a preliminary study evaluating its anti-stress activity in Swiss albino mice". Research Journal of Pharmaceutical, Biological and Chemical Sciences 2.4 (2011):786-794.
- 29. Chandra SR., et al. "Antidepressant activity of aqueous extract of Terminalia chebula in rats". International Journal of Pharmacy and Pharmaceutical Sciences 4.4 (2012): 449-451.
- 30. Mohd Afsahul Kalam,Zaffar Husain, AbdulHaseeb, Safia Husain, Kausar Shah and Basharat Saleem; Ustukhuddus (Lavandula stoechas L.): A Boon for the Management of Neuropsychiatric Disorders in Perspective of Unani Medicine-A Review,Acta Scientific Pharmaceutical Sciences (ISSN: 2581-5423) Volume 5 Issue 3 March 2021.
- 31. Ziaur Rahman, Sana Akhtar, Md. Naquibuddin, M.Y. Siddiqui and Ghufran Ahmad; EFFICACY OF WET CUPPING IN THE MANAGEMENT OF DEPRESSION: A PILOT STUDY, EUROPEAN JOURNAL OF PHARMACEUTICALAND MEDICAL RESEARCH,ejpmr, 2020,7(6), 655-657.
- 32. Dr. Saba Fatma and Dr. Aadam; An overview of concept of depression in Unani medicine and efficacy of Riyazat (exercise) in its management, ISSN: 2456-0057 IJPNPE 2019; 4(1): 1473-1476
- Abulhasan ahmad bin muhammad tabri; Al-Mualijat-ul-Buqratiya, (Urdu translation by CCRUM). New Delhit Ministry of Health and Family Welfare; 3 Ed. 2000. Pp 44,61. P 375.
- 34. Depression and Other Common Mental Disorders: Global Health Estimates. WHO/MSD/MER2017.2 https:/lapps.who.int/iris/handle/10665/254610. License: CC BY-NC-SA 3.0 IGO.
- 35. B Bernadine M M. Understanding India's mental health crisis Idea for India. 06 April, 2021.
- 36. Melancholia Depression Symptoms, Treatment, Tests, and more, Kerr Michael. Health Line Updated on February 27, 2018.
- 37. "Malankholia-Melancholia" Published By Chandra D, 2017 National Health Portal india.
- Akbar HA Mizan Al Tibb, Idara Kitab Al shifa Publication New Delhl, 2002, P 52
 A Laurence L. Brunton. Randa Hilal-Dandan, Björn C. Knollmann,Goodman Gilman's THE PHARMACOLOGICAL BASIS OF THERAPEUTICS (13 Ed). Publication McGraw-Hill Education. Chapter 15 P. 267.
- 40. Allan H. Ropper, Martin A. Samuels, Joshua P. Klein, Adam and victor's Principles of Neurology, Pub. Mac Graw Hill Education. 10 Ed. Chap 52, P 1529-40.
- 41. Radden, J. Is this dame melancholy ?Equating today's depression and past melancholia. Philosophy, Psychiatry, & Psychology 2003;10(1):37-52.
- 42. Tsuang MT Bar JL. Stone ws, Faraone SV. Gene-environment interactions in Mental disorders. World Psychiatry 2004, 3(2): 73-83.
- Tsuang MT. Faraone SV. The genetics of mood disorders. Baltimore MD John Hopkins University Press, 1990 Kendler KS. Gatz M. Gardner CO, Pedersen Journal of Psychiatry 2006: 163(1):109-14.
- 44. DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS "School Library. American Poychiatric Publishing. P, 172
- 45. Michael Glynn, Willam M. Hutchison's ClinIcal I Mothods 24 Edp
- 46. . 102 part 8.