WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.453
Volume 14, Issue 19, 335-350. Review Article ISSN 2277–7105

A REVIEW: DECODING DEPRESSION- CLINICAL INSIGHTS AND FUTURE DIRECTIONS

Yashvi Paghadal[1], Riti Pansuriya[2], Heer Patel[3], Vishva Vyas[4], Janki Patel*[5]

[1-4]Student, Sharda School of Pharmacy, Pethapur, Gandhinagar.

[5*]Associate Professor, Department of Pharmaceutical Quality Assurance, Sharda School of Pharmacy, Pethapur, Gandhinagar.

Article Received on
12 August 2025,

Revised on 01 Sept. 2025,
Accepted on 21 Sept. 2025

https://doi.org/10.5281/zenodo.17221780

***Corresponding Author**
Janki Patel
Associate Professor, Department of Pharmaceutical Quality Assurance, Sharda School of Pharmacy, Pethapur, Gandhinagar.

ABSTRACT

Depression is a common, debilitating mood disorder marked by persistent feelings of sadness, loss of interest or pleasure (anhedonia), and a range of cognitive, emotional, behavioral, and physical symptoms. This review examines the current understanding of psychological, and social, and clinically significant signs and symptoms. We also explore treatment modalities—psychotherapy, pharmacotherapy, and emerging interventions—as well as challenges in diagnosis (such as subthreshold and atypical forms), comorbidity, and relapse prevention. Despite advances in treatment, many individuals do not receive adequate care, due to stigma, access barriers, or heterogeneity in symptom presentation. Improved diagnostic tools, personalized treatment strategies, and public health initiatives are needed to enhance outcomes and reduce the global burden of depression. This study suggests that happy mood, sad mood, and negative ways of thinking often start to improve around the same time during treatment of depression. Fewer improvements were found in activities and interactions, which explains why activities and interactions often improved after individuals started to feel better.

KEYWORDS: Depression, Mood disorder, Anhedonia, Pharmacotherapy, Psychotherapy.

INTRODUCTION[1]

The words ‘depression’ or ‘depressed’ are often used by the public (and clients) to indicate a passing feeling or mood of sadness, lethargy, guilt, grief, or a low mood. In common usage,

they are synonyms for feeling flat, down, or 'having the blues. The word depression, originating in Latin, literally means "to press down". Depression is also used as a clinical term to suggest a particular type of mental disorder category, as described in the ICD-11 (World Health Organization, 2022), or DSM-5-TR (American Psychiatric Association [APA], 2022). The variation between the types of depression is usually related to duration, intensity, frequency, or context (e.g., post-partum depression that may occur with early motherhood). Depression is regarded as globally as the most prevalent mental disorder (Gotlib & Hammen, 2009) and the second largest cause of disability internationally (Ferrari et al., 2013). In counselling practice, clients often present with features associated with depression, whether these be severe enough to be classified as a disorder, or various degrees under the diagnostic threshold.

Types Of Depression

Major Depressive Disorder (MDD)[2]

Major depressive disorder (MDD), a main cause of disability worldwide, is characterized by physical changes such as tiredness, weight loss, and appetite loss. Anhedonia is a classic feature of MDD, and MDD is also accompanied by a lack of drive, sleep issues, cognitive challenges, and emotional symptoms such as guilt. The prevalence of depression is increasing yearly. About 300 million people in the world are affected by MDD, which has become one of the main causes of disability. In 2018, MDD ranked third in terms of disease burden according to the WHO, and it is predicted to rank first by 2030. Pregnant women, elderly people, children, and others have a higher incidence rate of MDD, which may be related to genetic, psychological, and social factors. Depression can be accompanied by recurrent seizures, which may occur even during remission or persist for longer than the disease itself. Pharmacological therapies for MDD can effectively control symptoms; thus, patients may experience recurrence within a short time after discontinuing medication. During recurrence, the patient experiences symptoms of low mood, loss of interest in life, fatigue, delayed thinking, and repeated fluctuations in mental state.

Persistent Depressive Disorder (Dysthymia)[3]

Dysthymia is characterized by a chronically depressed mood that typically lasts for two years or longer, often resulting in significant impairments in daily functioning and overall quality of life. From 1990 to 2021, the global number of dysthymia patients increased from 0.61 million to 1.08 million, presenting a substantial public health challenge. This challenge is particularly

pronounced in developing countries, where limited access to mental health care services exacerbates its long-term consequences. As the world's most populous developing country, China has been facing a substantial burden of dysthymia, reporting the highest number of new cases globally in 2019. Cultural stigmas surrounding mental illness, combined with insufficient mental health resources, frequently delay the diagnosis and treatment of dysthymia, further intensifying its chronic impact on both affected individuals and the healthcare system. Understanding the temporal patterns and projected trends of dysthymia burden—particularly among high-risk populations—has thus become a critical public health priority.

Among these high-risk groups, young adults are especially vulnerable to dysthymia due to the unique challenges of career development, financial independence, and family responsibilities. Globally, young adults aged 25–44 years account for the largest number of dysthymia cases, highlighting the substantial burden within this demographic.

Bipolar Depression[4-9]

Depressive episodes during bipolar disorder contribute substantially to both morbidity and mortality risk. Yet despite a broadening range of evidence-based interventions for this phase of illness, appropriate treatment of bipolar depression remains challenging and controversial even for physicians focused on specialty care. For example, an International Society for Bipolar Disorder workgroup acknowledged multiple areas of disagreement, and efforts to examine consensus among clinicians have identified persistent heterogeneity in treatment approaches.

In the present study, we describe an approach to clinical decision support that augments a standard large language model with a prompt incorporating a summary of evidence-based guidelines to elicit a set of next-step pharmacologic options. This approach is similar to retrieval-augmented generation models that attempt to match a query with fragments of text from a set of documents but takes advantage of the capacity of newer large language models to include a large amount of text in the model prompt itself, obviating the need to parse a document. Our primary objective was to compare this strategy, which allows flexibility in incorporating evidence-based recommendations in clinical practice versus purely algorithmic prescribing, to expert consensus recommendations. For comparison, we also examined the extent to which an un-augmented large language model (i.e., without additional knowledge), could approximate expert consensus recommendations. We also examined performance of a

group of community prescribers, as an approximation of community standard of care. To address the possibility of bias, we further considered the extent to which model outputs may be biased by gender and race.

Seasonal Affective Disorder (SAD)[10]

Seasonal affective disorder (SAD) is a subtype of major depressive disorder (MDD) that is generally seasonal in nature, and its primary etiology is light-induced disruption of the circadian rhythm. During the onset of the disorder, affective disorders can significantly impair the patient's quality of life and physical and mental health, and may include symptoms such as lethargy, insomnia, agitation, decreased libido, slowed thinking, loss of appetite, and a preference for sweets or carbohydrates. Older adults are more vulnerable to changes in their environment, which can lead to a number of psychological problems and increase the risk of disability, death after illness, and even suicide, so it is important to study environmental adaptation and mental health in older people. Sun exposure (SE) is a direct and effective non-pharmacological intervention to regulate mood abnormalities in individuals, primarily through the synthesis of adequate amounts of vitamin D. Additionally, studies have shown that older adults with more sun exposure time typically show a more optimistic and positive outlook on life, as they have more opportunities for socialization and physical activity to overcome the negative emotions associated with loneliness. However, personality traits (PT), as an intrinsic attribute of individuals, are directly related to health and behavior. According to Eysenck's theory of personality, groups with extroverted personalities are less likely to be at risk for depression, whereas those with more pronounced psychotic or neurotic personalities are usually prone to emotional instability, withdrawn and impulsive, and are more likely to be at risk for erratic behavior. Nevertheless, many studies have demonstrated the positive effects of light interventions on individual physiology and behavior, but few studies have examined the effects of light interventions on mental health, using individual personality differences as the independent variable, examining personality differences that are important for geriatric health education and the development of targeted mental health interventions.

Etiology[11-15]

One key biological factor in depression is neurotransmitter imbalance, particularly involving serotonin, norepinephrine, and dopamine. These neurotransmitters are essential for mood regulation, and alterations in their levels are linked to the onset and persistence of depressive

symptoms. For instance, selective serotonin reuptake inhibitors (SSRIs), a widely used class of antidepressants, alleviate symptoms by increasing serotonin availability in the brain.

Genetics also play a significant role in depression risk, with heritability estimates indicating that genetic factors account for approximately 30-50% of the overall risk. However, recent research shows that environmental stressors can influence gene expression through processes like DNA methylation and histone acetylation, underscoring the complex gene-environment interactions that contribute to depression.

Psychological factors, including negative thought patterns, low self-esteem, and unresolved trauma, are also critical contributors. Cognitive-behavioral therapy (CBT), which addresses these patterns, is a frequently used treatment with documented effectiveness for many individuals.

Burden[16]

Among the well-known burdens caused by depression are patient suffering, family distress and conflict, impaired cognitive development of young children in cases of postpartum depression, and the strikingly increased risk of suicide. More recent studies have examined the impact on functioning and the economic burdens. The Medical Outcomes Study looked at patient physical functioning in several chronic diseases. Patients with depression had functioning scores about the same as those with advanced coronary artery disease, scores that were in turn lower than all other conditions studied, including hypertension, diabetes mellitus, and arthritis. This impairment in functioning, when coupled with the high prevalence, chronic or relapsing course, and frequent early onset, led a group of World Health Organization researchers to conclude that unipolar major depression is the leading cause of disability worldwide. Functional improvement occurs with effective treatment.

Comorbidity[17]

Depression occurs frequently with anxiety disorders and with substance use disorders, including alcoholism. More recent research highlights the relation between nicotine addiction and depression. Diagnosis of co-occurring depression and substance abuse is complicated, as either condition may overshadow the other. A number of recent textbooks and review articles are devoted to issues of diagnosing and treating depression and other psychiatric disorders in general medical populations.

Assessment and Diagnosis[18-29]

For individuals presenting with depression or those identified by screening, assessment should consider factors that usually require specialty consultation or referral, including suicidal ideation with planning or intent, likely bipolar disorder, or psychotic symptoms. Approximately 5% of patients treated for depression in primary care report suicidal ideation "more than half the days" or "nearly every day" in response to item 9 of the PHQ-9, and those patients have an approximately 1% risk of self-harm or suicide attempt over the following 90 days. Data from mental health specialty or inpatient samples suggest that structured assessments, such as the Columbia-Suicide Severity Rating Scale, can identify individuals with current or recent suicidal ideation for whom specialty consultation is recommended and those with suicidal planning and intent for whom urgent consultation or referral is recommended. When same- or next-day specialty consultation is not available, primary care clinicians can collaborate with patients and caregivers to create a safety plan or crisis response plan that includes steps to reduce access to lethal means, such as firearms. At least 7% of people treated for depression in primary care may have unrecognized bipolar disorder (type I or II) For patients with bipolar disorder, mood stabilizer medications may be indicated and treatment with antidepressants alone can precipitation or mood instability. Questionnaires to screen for bipolar disorder may be useful, but sensitivity may be as low as 50% in primary care settings. Unless indicated by history or examination, laboratory testing (including thyroid testing), imaging, or other diagnostic procedures are not recommended to confirm the diagnosis of depression or guide treatment. Several screening tools are available to help physicians identify patients who are most likely to be depressed. As with most screening instruments, they tend to be sensitive but not too specific for identifying depression. Most authors suggest screening when the physician has some priori suspicion of depression, typically a specific depressive symptom, unexplained physical symptoms, impaired functioning, or subjective distress out of proportion to a known general medical condition, or another psychiatric disorder. Physicians must interpret specific screening results correctly and appreciate the need to carry out further clinical assessment. No preventive service guide calls for depression screening in asymptomatic individuals.

Symptoms

Symptom	Description / Examples
Depressed mood	Persistent sadness, emptiness, tearfulness, feeling "down" most of the day, nearly every day.
Loss of interest or pleasure	Markedly diminished interest in most activities;

(anhedonia)	things once enjoyed feel “flat” or unrewarding.
Significant appetite or weight change	Either loss of appetite / weight loss, or increased appetite / weight gain, not due to dieting.
Sleep disturbance	Insomnia (difficulty falling or staying asleep), or hypersomnia (sleeping too much).
Psychomotor agitation or retardation	Either restlessness, being slowed down, or observable by others as slowed speech, movement etc.
Fatigue or loss of energy	Feeling tired, weak, lacking energy even for small daily tasks.
Feelings of worthlessness or excessive/inappropriate guilt	Severe self-blame, guilt over things that are not necessarily one's fault, feeling worthless.
Impaired concentration / indecisiveness	Trouble thinking clearly, making decisions, memory issues etc.
Recurrent thoughts of death / suicidal ideation	Thoughts of death, suicidal ideation or attempts.

Symptom Domain	**Examples**	**Notes / Variation**
Mood / Emotion	Depressed mood, sadness, hopelessness, irritability	Children may show irritability more than overt sadness
Cognitive	Difficulty concentrating, guilt, worthlessness, suicidal thoughts	Older adults may show cognitive decline or confusion
Physical / Somatic	Sleep disturbances, appetite changes, aches/pains, fatigue	Some cultures report more somatic symptoms
Behavior / Interest	Loss of pleasure, social withdrawal, reduced activity	Severity often correlates with functional impairment

Treatment[30]

Patients with treatment-resistant depression generally benefit from consultation with a mental health clinician, preferably a psychiatrist, because decision making around medication is often indicated. Such collaborative care may involve either ecomanagement of care by a primary care provider and a psychiatrist or a psychotherapist (or both) or referral to a psychiatrist or psychotherapist for consultation or ongoing care.

Psychotherapy

Psychotherapy is a psychological intervention aimed at helping individuals overcome various mental health issues. It can be delivered through different methods and techniques, such as cognitive-behavioral and psychodynamic therapy. However, challenges such as stigma and accessibility often limit their effectiveness. Artificial intelligence (AI) offers innovative opportunities to enhance psychotherapy through personalized interventions using tools such as chatbots and precision therapeutic techniques. While prior research has primarily focused on AI’s role in diagnosing and classifying mental health disorders, our study extends the

application of AI into the realm of treatment, evaluating the effectiveness of AI-based psychotherapy interventions in enhancing mental health outcomes. This study reviews existing research on AI in psychotherapy, focusing on integrating AI into mental health. It highlights its potential to enhance diagnosis and treatment, particularly for depression and anxiety, and its effectiveness in treating mental health disorders and addressing ethical implications and operational challenges. While AI's use in medicine is well established, its application in mental health is evolving, offering cost-effective, stigma-reducing solutions accessible via smartphones. AI interventions such as chatbots personalize care and support symptom management but face challenges ensuring data privacy and maintaining human empathy. The future of AI in psychotherapy promises greater accessibility and requires ongoing ethical and clinical research to optimize its implementation. The findings suggest that AI interventions can improve psychotherapy outcomes, particularly in treating depression and anxiety disorders. Further research is needed to explore AI's efficacy and ethical considerations in psychotherapy, highlighting the evolving relationship between technology and mental health care.

Medication[31]

(A) Healthy Diet

Mechanism: How could diet influence depression? The relationship between diet and mental health is multifaceted and complex.

Studies examining the underlying mechanisms are still limited and much of the mechanistic research has been conducted in animal models or restricted to the examination of specific dietary components (e.g., micronutrients) and their impact on human health. However, there are several strong candidate mechanisms through which correlated with symptom severity is the public health significance of this article. This study suggests that happy mood, sad mood, and negative ways of thinking often start to improve around the same time during treatment of depression. Fewer improvements were found in activities and interactions, which explains why activities and interactions often improved after individuals started to feel better. Human health. However, there are several strong candidate mechanisms through which correlated with symptom severity.

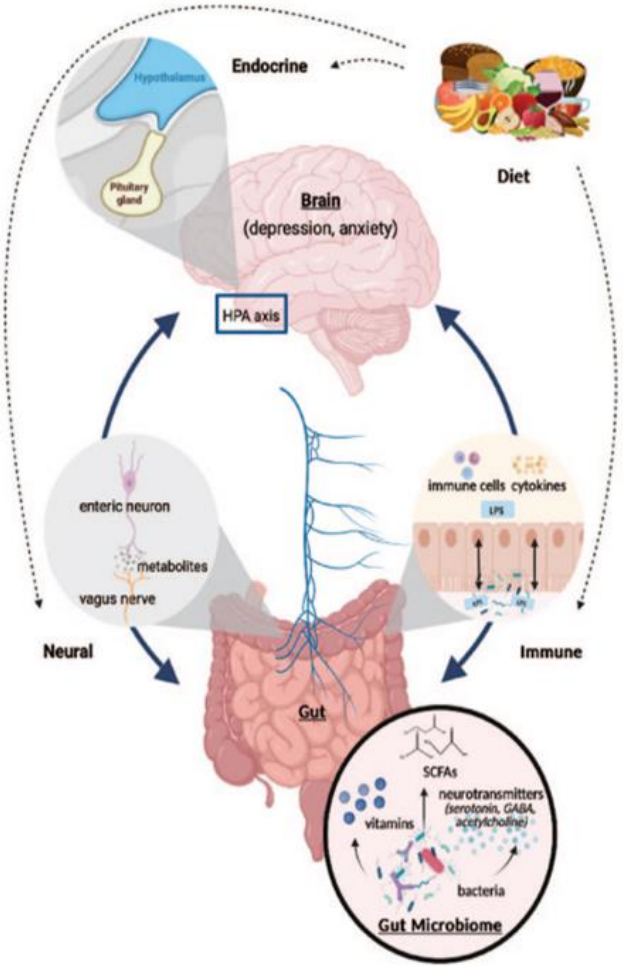

Fig. 1: The major pathways through which the microbiome interacts with the brain.[31]

B) DASH diet

The DASH diet refers to 'Dietary approaches to Stop Hypertension'. The DASH diet is a healthy diet pattern originally developed for the treatment of hypertension and has demonstrated benefits for reducing the risk of cardiovascular disease. It encourages low salt intake and increased intake of foods rich in potassium, calcium and magnesium and emphasizes intake of fruit, vegetables, wholegrains, nuts, seeds, legumes, low or no fat dairy products and lean meat.

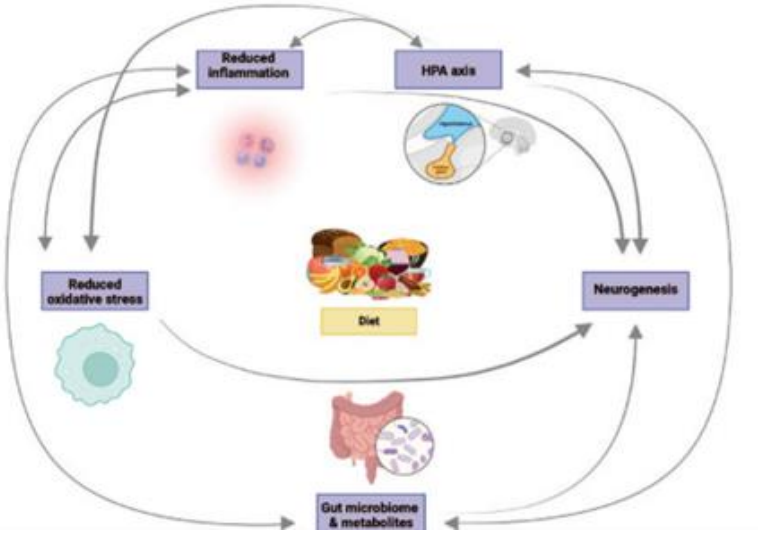

Fig. 2: Major candidate mechanisms through which diet can impact mood.[31]

C) Anti-inflammatory diet

Many chronic, non-communicable diseases, including depression, are associated with chronic systemic inflammation. The exploration of known sources of inflammation including psychosocial stress, poor diet and physical inactivity, suggest that inflammation at least partly mediates the path for risk and progression of these chronic diseases. Intake of a range of specific foods, nutrients and dietary constituents have been associated with lower levels of systemic inflammatory markers and have been described as having anti-inflammatory potential. For example, some studies show adherence to a Mediterranean style diet, vegetarian/vegan and DASH diet have been associated with lower levels of systemic inflammation. Conversely, increased intake of foods and nutrients characteristic of a Western-style diet, including foods high in sugar or saturated fat, can increase inflammatory markers. The Dietary inflammation Index (DII) is a literature-derived tool that attempts to encapsulate these disparate data. Scores are calculated based on intake of dietary components that negatively and positively contribute to the inflammation score. Dietary components that contribute positively to the total score include fat and carbohydrate, bioactive components such as flavanols, and foods such as ginger, garlic and onion.

Recognizing Warning Signs of Depression

Depression doesn’t always look the same for everyone, and sometimes its warning signs are subtle. Being alert to changes in mood, behavior, thinking, or physical well-being in someone you know can help intervene early. Key red flags include persistent sadness or low mood lasting more than two weeks; loss of interest or pleasure (anhedonia) in activities they once

enjoyed; feelings of hopelessness, worthlessness, excessive guilt; and thinking about death or suicide. Physical and behavioral changes such as significant shifts in sleep patterns (sleeping too much or insomnia), appetite or weight changes, low energy or social withdrawal (avoiding friends, family, activities), neglect of personal appearance or hygiene, increased irritability or agitation, mood swings, or reckless behavior. If someone begins giving away personal items, making "farewell" statements, or expressing that others would be better off without them, these are especially serious warning signs that require prompt professional attention.

Supporting

Supporting someone with depression involves more than simply offering words—it requires consistent empathy, patience, and practical help. First, educate yourself about depression so you understand what your friend or loved one is going through: its symptoms, how it can affect mood, behavior, cognition, and why some days are harder than others. When interacting, try to listen actively and non-judgmentally—give them space to share what they feel without pressure, avoid minimizing their experience or comparing it with others. Offering help with everyday tasks (such as chores, errands, preparing meals) can reduce the burden of small things that feel overwhelming when someone is depressed. Encourage routine regular sleep, healthy meals, physical activity—and join them in some of these activities, as shared tasks provide support and connection. It is also important to encourage professional help: gently suggest seeing a mental health worker or doctor, offer to assist in making appointments or going with them, and continually reinforce that depression is a treatable medical condition, not a personal failing. Finally, maintaining your own emotional health, supporting someone with depression can be challenging, and taking care of yourself helps sustain your ability to be helpful in the long run.

Being Patient and Empathetic in Supporting Someone with Depression

When supporting someone with depression, patience and empathy are two of the most powerful qualities you can bring. Depression often progresses slowly, with ups and downs, and recovery is rarely a straight-path. As a supporter, showing patience means accepting that there will be good days and bad days, that progress might be incremental, and sometimes setbacks will occur. Impatience, judgment or pressure to "snap out of it" can worsen feelings of guilt or hopelessness in the person who is depressed. It's important to resist frustration and avoid minimizing their experience or expecting rapid changes.

Empathy involves more than sympathy. It means really trying to understand what the person is going through feeling with them, listening without judgment, validating their emotions, and offering a safe space for them to share. Empathic listening means being fully present, paying attention to both verbal and non-verbal cues, offering statements like "I hear you," "That sounds really hard," or "It makes sense you feel that way" which help the depressed person feel seen and heard. This kind of emotional connection can significantly reduce a sense of isolation.

Some practical ways to practice patience and empathy include

- **Listen more; talk less**: Allow the person to express without interruption or trying immediately to "fix" things.
- **Validate, don't judge**: Acknowledge their feelings ("It makes sense you feel overwhelmed") rather than saying things like "You shouldn't feel that way."
- **Check in regularly**: Even when they don't respond much, letting them know you are there can help — "I'm here when you want to talk."
- **Offer small, concrete help**: Depression can make even small tasks feel huge. Helping with chores, running errands, and giving reminders can relieve pressure.
- **Respect their pace**: Recovery may require therapy, medication, lifestyle changes; those don't all work immediately. Avoid imposing harsh timelines.

Encouraging People with Depression

Encouraging someone with depression requires kindness, understanding, and consistency. It starts with reassuring them that seeking help—whether Through therapy, medication, or support groups—is a sign of strength, not failure. Let them know many people experience depression, and many people do get better with the right help. Gently remind them that they are not alone, and that what they're going through is not their fault. Encouragement also means helping them take small steps: supporting them in maintaining routines (sleep, meals), engaging in activities they used to enjoy (even if the joy isn't there initially), and doing things together—walks, small chores, cooking, or simply being present. Importantly, encourage patience: recovery is often gradual, with some setbacks, and that's okay. Avoid pressuring them to "get over it" or comparing their journey to others'. Let them know they are valued, and that you're there to walk with them in the journey, not to rush or fix everything immediately.

Key Ways to Encourage Someone with Depression

- Explain that treatment works and that depression is treatable.
- Offer to help them find a mental health professional or even accompany them to appointments if they want.
- Remind them of their past strengths, qualities, or moments of resilience. Positive reinforcement goes a long way.
- Offer help with small, manageable tasks (housework, errands), so that daily burdens feel less overwhelming.
- Gently encourage self-care: sleep, nutrition, light physical activity. Suggest doing such things together rather than telling them to do them alone.
- Check in regularly and listen without judgment. Sometimes just being heard matters more than any advice.
- Use hopeful statements but be realistic. Acknowledge how hard things are, but also remind them of hope, change, and that setbacks don't undo all progress.

CONCLUSION

Depression remains a pervasive and multifaceted mental health challenge globally, deeply impacting individuals across emotional, cognitive, behavioral, and physical domains. Despite well-established diagnostic criteria and effective treatments, many people suffer in silence due to stigma, misdiagnosis, limited access to care, or inadequate support systems. Recent research highlights important gaps: symptom presentations that fall outside standard diagnostic checklists (especially among adolescents and in different cultural settings) may go unrecognized; treatment resistance and discontinuation remain major hurdles; and there is a growing need for more personalized, contextually sensitive approaches. To reduce the burden of depression, it is essential to strengthen early detection (including subclinical and atypical forms), integrate psychosocial and biological treatments, and expand access through community and primary care settings. Supporting lived experience—ensuring patient voices shape how depression is understood and treated—is critical, as is addressing systemic barriers: affordable treatment, mental health literacy, reducing stigma, and enhancing trained workforce capacity. With comprehensive policy commitment, culturally adapted interventions, and ongoing research into novel therapeutics and preventive strategies, there is renewed hope for improving outcomes, reducing relapse rates, and enabling more people to reclaim wellness and purpose in their lives.

REFERENCES

1. Brown, George W., and Tirril O. Harris. "Depression." *New York: Guilford*, 1989.
2. Cui, Lulu, et al. "Major depressive disorder: hypothesis, mechanism, prevention and treatment." *Signal transduction and targeted therapy*, 2024; 9.1: 30.
3. Wu, Jingxian, et al. "Incidence and prevalence of dysthymia among young adults in China, 1990–2021, with forecasts to 2046: an age-period-cohort analysis of the Global Burden of Disease Study 2021." *BMC psychiatry*, 2025; 25.1: 238.
4. Perlis, Roy H., et al. "Clinical decision support for bipolar depression using large language models." *Neuropsychopharmacology*, 2024; 49.9: 1412-1416.
5. Biazus TB, Beraldi GH, Tokeshi L, Rotenberg LdeS, Dragioti E, Carvalho AF, et al. Allcause and cause-specific mortality among people with bipolar disorder: a largescale systematic review and meta-analysis. Mol Psychiatry, 2023; 28: 2508–24.
6. Gitlin MJ. Antidepressants in bipolar depression: an enduring controversy. Int J Bipolar Disord, 2018; 6: 25.
7. Pacchiarotti I, Bond DJ, Baldessarini RJ, Nolen WA, Grunze H, Licht RW, et al. The International Society for Bipolar Disorders (ISBD) task force report on antidepressant use in bipolar disorders. Am J Psychiatry, 2013; 170: 1249–62.
8. Goldberg JF, Freeman MP, Bacon R, Citrome L, Thase ME, Kane JM, et al. The American Society of Clinical Psychopharmacology survery of psychopharmacologists' practice patterns for the treatment of mood disorders. Depress, 2015; 32: 605–13.
9. Sakurai H, Kato M, Yasui-Furukori N, Suzuki T, Baba H, Watanabe K, et al. Pharmacological management of bipolar disorder: Japanese expert consensus. Bipolar Disord, 2020; 22: 822–30
10. Galima SV, Vogel SR, Kowalski AW. Seasonal Affective Disorder: Common Questions and Answers. Am Fam Physician, 2020; 102: 668-672.
11. Yang, Xinghong. "Severe depression: Etiology, recovery, and prevention." *Haya Saudi J Life Sci.*, 2024; 9.11: 427-446.
12. Remes, O., Mendes, J. F., & Templeton, P. (2021). Biological, psychological, and social determinants of depression: a review of recent literature. Brain sciences, 11(12): 1633.
13. Cui, L., Li, S., Wang, S., Wu, X., Liu, Y., Yu, W., ... & Li, B. (2024). Major depressive disorder: hypothesis, mechanism, prevention and treatment. Signal Transduction and Targeted Therapy, 9(1): 30.
14. Li, Z., Ruan, M., Chen, J., & Fang, Y. (2021). Major depressive disorder: advances in neuroscience research and translational applications. Neuroscience bulletin, 37: 863-880.

15. Kobayashi, N., Shimada, K., Ishii, A., Osaka, R., Nishiyama, T., Shigeta, M., ... & Kondo, K. (2024). Identification of a strong genetic risk factor for major depressive disorder in the human virome. Iscience, 27(3): 109203.
16. Khalsa, Shabad-Ratan, et al. "Beliefs about the causes of depression and treatment preferences." *Journal of clinical psychology*, 2011; 67.6: 539-549.
17. Glassman AH. Cigarette smoking: implications for psychiatric illness. Am J Psychiatry, 1993; 150: 546–51.
18. Simon, Gregory E., Nathalie Moise, and David C. Mohr. "Management of Depression in Adults A Review." *JAMA*, 2024; 332.2: 141-152.
19. Simon GE, Coleman KJ, Rossom RC, et al. Risk of suicide attempt and suicide death following completion of the Patient Health Questionnaire depression module in community practice.J Clin Psychiatry, 2016; 77(2): 221-227. doi:10.4088/JCP. 15m09776
20. Riblet NB, Matsunaga S, Lee Y, Young-Xu Y, Shiner B, Schnurr PP, Levis M, Watts BV. Tools to detect risk of death by suicide: a systematic review and meta-analysis. J Clin Psychiatry, 2022; 84(1). doi:10.4088/JCP.21r14385.
21. Posner K, Brown GK, Stanley B, et al. The Columbia-Suicide Severity Rating Scale: initial validity and internal consistency findings from three multisite studies with adolescents and adults. Am J Psychiatry, 2011; 168(12): 1266-1277. doi:10.1176/ appi.ajp.2011.10111704.
22. Stanley B, Brown GK, Brenner LA, et al. Comparison of the safety planning intervention with follow-up vs usual care of suicidal patients treated in the emergency department. JAMA. Psychiatry, 2018; 75(9): 894-900. doi:10.1001/ jamapsychiatry.2018.1776
23. O'Donovan C, Alda M. Depression preceding diagnosis of bipolar disorder. Front Psychiatry, 2020; 11: 500. doi:10.3389/fpsyt.2020.00500
24. Hughes T, Cardno A, West R, et al. Unrecognised bipolar disorder among UK primary care patients prescribed antidepressants: an observational study. Br J Gen Pract., 2016; 66(643): e71-e77. doi:10.3399/bjgp16X683437
25. Carvalho AF, Takwoingi Y, Sales PM, et al. Screening for bipolar spectrum disorders: A comprehensive meta-analysis of accuracy studies. J Affect Disord, 2015; 172: 337-346. doi:10. 1016/j.jad.2014.10.024
26. Zimmerman M, Galione JN. Screening for bipolar disorder with the Mood Disorders Questionnaire: a review. Harv Rev Psychiatry, 2011; 19(5): 219-228. doi:10.3109/10673229.2011.614101

27. Dayan CM, Panicker V. Hypothyroidism and depression. Eur Thyroid J., 2013; 2(3): 168-179. doi:10.1159/000353777
28. US Preventive Services Task Force. Guide to Clinical Preventive Services. 2nd ed. Baltimore, Md: Williams and Wilkins, 1996.
29. Periodic health examination, 1990 update, 2: early detection of depression and prevention of suicide. Can Med Assoc J., 1990; 142: 1233–8.
30. Steffens, David C. "Treatment-resistant depression in older adults." *New England Journal of Medicine*, 2024; 390.7: 630-639.
31. Staudacher, Heidi M., et al. "Diet interventions for depression: Review and recommendations for practice." *Australian & New Zealand Journal of Psychiatry*, 2025; 59.2: 115-117.