



# Anxiety Disorders: The Role of Food and Herbal Remedies in Management

Ahmad Raja, and Rittu Sharma\*

Career Point School of Pharmacy Career Point University, Kota-324003-(Rajasthan)

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\*Corresponding Author Email: [sritvi242@gmail.com](mailto:sritvi242@gmail.com)

## Abstract

Anxiety is the bigger fear disease which are dangerous for human being because people has fell Anxiety is a complex emotional state characterized by persistent worry, restlessness, and physiological tension. While modern treatments include therapy and medication, traditional approaches often emphasize the role of plants and food in calming the mind and restoring balance. Nutrient-rich foods and herbal remedies can influence brain chemistry, supporting emotional regulation and stress reduction. For instance, leafy greens, whole grains, and fruits provide essential vitamins such as B-complex and magnesium, which are linked to improved nervous system function. Similarly, plant-based infusions like chamomile, ashwagandha, and lavender have been associated with mild sedative and anxiolytic effects. Dietary patterns also play a crucial role in gut health, which is increasingly recognized as connected to mental well-being through the gut-brain axis. Fermented foods and fiber-rich plants support beneficial microbiota, potentially reducing anxiety symptoms. Common types include Generalized Anxiety Disorder (GAD), panic disorder, and social anxiety, often treated with therapy or medication. There is a Key Impacts on Daily Life Emotional & Mental Strain-Constant fear, irritability, restlessness, and excessive, uncontrollable worry. Additionally, mindful eating practices—such as consuming warm, balanced meals—can create a sense of stability and comfort. While these natural strategies are not substitutes for clinical care in severe cases, they offer accessible and holistic support. Integrating plant-based remedies and balanced nutrition may contribute to a comprehensive approach to managing anxiety and enhancing overall psychological resilience.

## Keywords

Anxiety, Nutrient-rich, Generalized Anxiety Disorder, herbal remedies, stress reduction

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## INTRODUCTION:

**Anxiety:** Anxiety is a common, often chronic, mental health condition characterized by intense, excessive fear or worry that interferes with daily life, distinguishing it from normal stress. Common symptoms include racing heart, sweating, muscle tension, and uncontrollable worry. It is managed via psychotherapy and medication. Anxiety is a natural response to stress, but anxiety disorders involve persistent, excessive fear or worry that interferes with daily life. Symptoms include restlessness, rapid heart rate, fatigue, and trouble

concentrating. Common types include Generalized Anxiety Disorder (GAD), panic disorder, and social anxiety, often treated with therapy or medication. There is a Key Impacts on Daily Life Emotional & Mental Strain-Constant fear, irritability, restlessness, and excessive, uncontrollable worry. Physical Symptoms-Muscle tension, headaches, shaking, sweating, stomach cramps, and rapid breathing. Sleep Disruption-Difficulty falling or staying asleep (insomnia), causing fatigue, which further affects daily functioning. Social & Occupational Issues-Difficulty keeping jobs, strained relationships with

family and friends, and avoidance of social events. Behavioral Changes-Avoidance of perceived threats or everyday tasks, difficulty making decisions, and overthinking plans. Physical Health Consequences-A weakened immune system, higher risks of heart issues, and exacerbation of conditions like asthma. Anxiety affects daily life by creating persistent worry, physical symptoms like rapid heart rate and insomnia, and social isolation, often hindering career performance and personal relationships. It causes chronic stress, leading to fatigue, difficulty concentrating, and avoidance of normal daily activities. The stress of modern living significantly affects daily functioning and overall mental well-being. Chronic stress is a significant risk factor in the emergence of various psychiatric conditions, such as generalized anxiety disorder (GAD), panic disorders, social anxiety disorder (SAD), post-traumatic stress disorder (PTSD), and specific phobias. Based on findings from large-scale population surveys, approximately one third of individuals will experience an anxiety disorder at some point in their lives. Anxiety disorders display distinct patterns of onset and prevalence [1].

#### **Anxiety and Neurotransmitters:**

Anxiety disorders are caused by neurotransmitter disruptions in some cases. In fact, the neurotransmitters govern the neuronal circuits.<sup>[7]</sup> These are governed by the three major neurotransmitter systems namely the serotonin, dopamine and nor-epinephrine. The deficiency of one neurotransmitter is not responsible in causing the anxiety disorder; there is an inter-relationship, multiple feedback mechanisms and complex receptor structure. The involvement of the neurotransmitter and receptor systems in pathogenesis of anxiety disorders are as follows [2]:

#### **Serotonin:**

The serotonergic pathways originate in the raphe nuclei and spreads widely throughout the forebrain. These are involved in maintaining anxiety, dopaminergic and nor-adrenergic pathways as well. The anxiety reduces in the increased level of the serotonergic tone; however, the mechanism is not known [3].

#### **GABA:**

GABA is the main inhibitory neurotransmitter in the Central Nervous system [CNS]. Immediately anxiety is reduced by the modulation of GABA-ergic pathways. This pathway originates from the midbrain in the ventral tegmental area and substantia nigra, with projections to the cortex, striatum, limbic nuclei, and infundibulum [4].

#### **Dopamine:**

Dopaminergic pathways tend to affect the anxiety state in several ways. Its role is complex. Release of dopamine leads to acute stress in individuals.

#### **Nor-Epinephrine:**

It is a catecholamine. They are responsible in mediating the physiological symptoms of anxiety. The nor-adrenergic neurons originate in the pons and widely distributed in the CNS [5].

#### **TYPES OF ANXIETY DISORDERS:**

**Generalized Anxiety Disorder (GAD):** Chronic, exaggerated worry about everyday events. It is a common mental health condition characterized by persistent, excessive, and uncontrollable worry about everyday things like health, finances, or family. It causes significant distress, interfering with daily life, and is often accompanied by physical symptoms like restlessness, fatigue, and muscle tension. Treatment typically involves Cognitive Behavioral Therapy (CBT), medication (such as SSRIs), and lifestyle changes. where you feel excessive worry about everyday situations. It happens often and may be hard to manage. It interferes with your daily activities at home, work or school. It's normal to feel nervous occasionally, especially after a major life stressor. Many people worry about things like health, money or family, for example. But with GAD, those feelings happen more often and more intensely, even when there's little or no clear reason. These feelings can lead to physical symptoms like restlessness, headaches or unexplained aches and pains. It can make getting through the day very difficult. Generalized anxiety disorder is common. It currently affects about 3% of the adult U.S. population and 5% of people at any point during their lives. Only 43% of those affected are receiving treatment [6].

A healthcare provider can help you manage GAD.

#### **Symptoms of generalized anxiety disorder (GAD)**

The symptoms of generalized anxiety disorder may include:

- Excessive and persistent worry about everyday things
- Fatigue
- Feeling on edge or irritable
- Headaches
- Heart palpitations
- Muscle tension
- Restlessness
- Shortness of breath
- Sweating
- Trouble concentrating
- Unexplained pains (like muscle aches, stomachaches)

**Panic Disorder:**

Sudden, intense panic attacks accompanied by physical symptoms. Panic disorder is a mental health condition characterized by recurrent, unexpected panic attacks sudden surges of intense fear with physical symptoms like pounding heart, sweating, and dizziness. It causes persistent fear of future attacks, often leading to lifestyle changes and avoidance behaviors. Treatment involves psychotherapy (CBT) and medication. The Symptoms of this Intense, unexpected fear accompanied by rapid/pounding heart, sweating, trembling, shortness of breath, chest pain, nausea, dizziness, numbness, or feelings of impending doom/death. Symptoms usually peak within minutes. Causes of the exact cause is unknown but may involve genetic factors, stress, or changes in how the brain processes fear. Risk Factors It is more common in women than men and often begins in late teens or early adulthood, although it can occur at any age. Impact on Daily Life People often worry about having another attack (anticipatory anxiety), leading them to avoid situations (like public places or driving) where they previously had an attack. Untreated, it can lead to agoraphobia, depression, or severe social isolation [7].

**Social Anxiety Disorder:**

Intense fear of social situations and being judged. Social anxiety disorder (SAD), or social phobia, is a mental health condition characterized by intense, persistent fear of being watched, judged, or embarrassed in social situations. It goes beyond shyness, often causing avoidance of social interaction and severe physical symptoms like rapid heart rate, sweating, and nausea. Effective treatments include therapy and medication. Symptoms the show of the Emotional/Behavioral Extreme fear of interacting with strangers, fear of being the center of attention, avoiding social situations, and excessive self-consciousness or post-event analysis of mistakes. Causes & Risk Factors Biological/Genetic: Hereditary factors or an overactive amygdala. Environmental: History of bullying, teasing, rejection, family conflict, or abuse. Onset: Usually begins in early-to-mid teens, though it can start earlier or later in life [8].

**Phobias:**

Irrational fear of specific objects or situations. A phobia is an intense, irrational, and persistent fear of a specific object, situation, or activity that is generally harmless, often driving people to go to great lengths to avoid it. As a type of anxiety disorder, it can trigger severe physical symptoms like panic attacks, sweating, and rapid heartbeats. Phobias are treated effectively through therapy and,

in some cases, medication. Phobias are generally categorized into three types:

Specific (Simple) Phobias Fear of a specific object or situation, such as spiders (arachnophobia), heights (acrophobia), flying, or needles. Social Phobia (Social Anxiety Disorder) Intense fear of social situations or performing in front of others. Agoraphobia Fear of being in situations where escape might be difficult or help is unavailable if a panic attack occurs, often leading to avoiding open spaces or public places [9].

**Causes of anxiety:**

Occasional anxiety is often a response to uncertainty about the future or worry about something that happened in the past. For example, a person may feel anxious about taking a test, or worry they have made a decision they might regret. The causes of anxiety disorder are more complex and can involve several factors. The United Kingdom charity, Mind, lists several psychological factors: Current situation: Life events that cause ongoing stress may contribute to the development of an anxiety disorder. Examples of these include financial struggles, being under pressure at work, or experiencing discrimination. Past trauma: Traumatic events are incidents that cause an actual or perceived threat to a person's safety. Even if these events happened a long time ago, they can still affect people years later. Substance use: Some substances, such as stimulant drugs, can cause anxiety. Other substances may cause anxiety when a person experiences withdrawal [10].

**Some physical factors include:****Brain structure or function:**

People with anxiety disorders may have a heightened amygdala response. The amygdala is part of the brain that responds to danger.

**Genetics:**

Some people may have a genetic predisposition toward anxiety.

**Medical factors:**

Sometimes, anxiety is the product of a physical illness, such as a neurological disorder or hormonal imbalance. It can also be a side effect of some medications, or a result of experiencing long-term pain or other symptoms [11].

**Treatment for anxiety:****Self-care:**

Sometimes, a person can ease anxiety at home without clinical supervision. Things that may help a person cope include:

- relaxation techniques
- physical exercise
- getting enough sleep
- reducing the use of caffeine or other stimulants

- talking with a trusted loved one

However, this may only be effective for mild or short-term anxiety. Those with more severe or ongoing anxiety may benefit from combining these strategies with therapy or medication [12].

#### **Medications:**

Some medications can reduce the symptoms of anxiety, making the condition more manageable. Some people take medications to make it easier to begin therapy, while others may take them on an ongoing basis:

#### **Antidepressants:**

Some antidepressants can help with anxiety, even though they also target depression. Serotonin reuptake inhibitors, fluoxetine, and citalopram are examples. They take several weeks Trusted Source to begin working.

#### **Anxiety treatment with food:**



**Figure 1: food using for treatment of anxiety**

#### **Salmon:**

Salmon may be beneficial for reducing anxiety. Salmon Trusted Source contains nutrients that promote brain health, including vitamin D and the omega-3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). These nutrients may help reduce inflammation Trusted Source, which is noted to be an underlying cause of depression. In particular, a diet rich in eicosapentaenoic acid (EPA) and DHA is associated with lower rates of anxiety. Researchers believe Trusted Source these fatty acids may reduce inflammation and prevent brain cell dysfunction, which is common in people with anxiety. A diet rich in omega-3 fatty acids may also, allowing you to better handle stressors that trigger anxiety symptoms. Vitamin D has also been studied for its positive effects in reducing symptoms of anxiety and depression. A 2020 meta-analysis Trusted Source showed that vitamin D supplementation was associated with lower rates of negative mood

#### **Beta-blockers:**

These drugs do not stop anxiety, but they do reduce the physical symptoms associated with it, such as a rapid heartbeat. People can take them over a short period of time, or only occasionally for anxiety-inducing situations.

#### **Benzodiazepines:**

These drugs act immediately to reduce anxiety, but they can quickly cause dependence or addiction. As a result, doctors only prescribe them for short-term use. Diazepam, or Valium, is a common benzodiazepine. It is important to note that some of these drugs can cause side effects, including a worsening of anxiety, when a person starts taking them. It may take several months for this to subside [13].

disorders. For the most benefit, try adding salmon to your diet 2 to 3 times per week [14].

#### **Chamomil:**

Chamomile is an herb that may help reduce anxiety. It contains both antioxidant and anti-inflammatory properties, which may help lower inflammation Trusted Source associated with anxiety. Though the mechanisms aren't clear, researchers believe may help regulate neurotransmitters related to mood, such as serotonin, dopamine, gamma-aminobutyric acid (GABA) Chamomile may also help regulate the hypothalamic-pituitary-adrenocortical (HPA) axis, a central part of the body's stress response. Some studies have examined the association between chamomile extract and anxiety relief. 179 people with generalized anxiety disorder (GAD) experienced a significantly greater reduction in symptoms after consuming 1,500 milligrams of chamomile extract per day compared to those who did not. While results are promising, most studies have been conducted on chamomile extract. More recent research is necessary to evaluate the anti-

anxiety effects of chamomile tea, which is most commonly consumed [15].

**Turmeric:**

Turmeric is a spice that contains curcumin, a compound researcher has been studying for its role in promoting brain health and preventing anxiety disorders. Known for its high antioxidant and anti-inflammatory properties, curcumin may help prevent damage to brain cells related to chronic inflammation and oxidative stress. Moreover, a 2014 animal study suggests curcumin may increase the conversion of alpha-linolenic acid (ALA), an omega-3 found in plants, to DHA more effectively and increase DHA levels in the brain. A 2019 randomized study in 80 people with diabetes found daily supplementation of nano-curcumin a smaller, more bioavailable form of curcumin for 8 weeks resulted in significantly lower anxiety scores compared to a placebo. Though promising, most studies observed the effects of curcumin supplementation rather than obtaining curcumin from turmeric. Therefore, more research is needed in this area [16].

**Dark chocolate:**

Incorporating some dark chocolate into your diet may also help ease anxiety. Dark chocolate contains flavonols, such as epicatechin and catechin, which are plant compounds that act as antioxidants. suggests that the flavonols found in dark chocolate may benefit brain function and have neuroprotective effects. In particular, flavonols may increase blood flow to the brain and enhance cell-signaling pathways. These effects may allow you to adjust better to stressful situations that can lead to anxiety and other mood disorders. also suggests that dark chocolate's role in brain health may simply be due to its taste, which can be comforting for those with mood disorders. 13,626 participants found those who consumed dark chocolate had significantly lower symptoms of depression compared to those who seldom ate dark chocolate. While this is promising, more research investigating dark chocolate's long-term effects on anxiety and mood is needed. Further, dark chocolate is best consumed in moderation, as it's high in calories and easy to overeat. For best results, enjoy a 1- to 1.5-ounce serving at a time [17].

**Yogurt:**

The probiotics, or healthy bacteria, found in some types of yogurt may improve several

aspects Trusted Source of your well-being, including mental health. Though still an emerging field of research, probiotics may support the gut-brain axis an intricate system between the gastrointestinal tract and the brain. In particular, research suggests healthy gut bacteria may be linked with better mental health. Further, probiotic foods like yogurt may promote mental health and brain function by reducing inflammation and increasing the production of mood-boosting neurotransmitters, such as serotonin. consuming probiotic yogurt daily for 6 weeks was associated with improved anxiety, stress, and quality of life in postmenopausal females. Though a promising field of research, more human trials are needed to explore the direct relationship between yogurt consumption and anxiety. It's also important to note that not all yogurt contains probiotics. For the benefits of probiotics, choose a yogurt with live active cultures listed as an ingredient [18].

**Green tea:**

Green tea contains L-theanine, an amino acid that research has shown may have positive effects on brain health and anxiety. L-theanine reported significantly lower subjective stress and decreased cortisol levels, a stress hormone linked with anxiety. These effects may be due to L-theanine's potential to prevent nerves from becoming overexcited. Additionally, L-theanine may increase GABA, dopamine, and serotonin, neurotransmitters that have been shown to have anti-anxiety effects. Moreover, green tea contains epigallocatechin gallate (EGCG), an antioxidant suggested to promote brain health. It may play a role in reducing certain symptoms by also increasing GABA in the brain. Interestingly, the combination of L-theanine, EGCG, and other compounds found within green tea appears to play a synergistic role Trusted Source in promoting calmness and alleviating anxiety and may be more effective together than as separate ingredients [19].

**Almonds:**

Almonds are a great source of several nutrients thought to promote brain function, including vitamin E and healthy fats. In fact, some animal studies have found that almonds may reduce oxidative stress Trusted Source and inflammation, which could be involved in the

development of anxiety. Almonds may also offer other mood-boosting properties. For instance, here found that increased consumption of nuts, including almonds, was associated with decreased symptoms of depression. 3,172 adults showed that males who consumed the highest amount of nuts were 66% less likely to experience anxiety than those who consumed the lowest amount. However, this association was not observed for females. Therefore, more high-quality studies are needed to understand how almonds may impact mood and anxiety [20].

#### **Blueberries:**

Blueberries are high in vitamin C and other antioxidants, such as flavonoids, that have been studied for their ability to improve brain health and relieve anxiety. that daily supplementation with wild blueberries was linked to fewer self-reported symptoms of depression in 64 adolescents. Recent animal studies Trusted Source also suggest that certain compounds found in blueberries may reduce oxidative stress and ease symptoms of depression and anxiety. Other studies have even found that increased intake of fruits, such as blueberries, may be tied to a lower risk of anxiety. Still, additional studies are needed to evaluate the effects of blueberries on anxiety [21].

#### **Other foods that may help with anxiety:**

While some of the foods listed below have not been studied specifically for their anti-anxiety effects, they're rich in nutrients thought to improve related symptoms.

#### **Turkey, bananas, and oats:**

These foods are all good sources of the amino acid tryptophan, which is converted to serotonin in the body and may promote relaxation and anxiety relief.

**Meat and dairy products:** Meat and dairy provide high quality protein including essential amino acids that produce the neurotransmitters dopamine and serotonin, potentially improving mental health.

#### **Chia seeds:**

Chia seeds are another good source of brain-boosting omega-3 fatty acids, which have been shown to help with anxiety.

#### **Citrus fruits and bell peppers:**

These fruits are rich in vitamin C, which has antioxidant properties that may help reduce

inflammation and prevent damage to cells that may promote anxiety.

Though these foods may support your mental well-being, they should not replace any medications or other therapies prescribed by a healthcare professional [22, 23].

#### **CONCLUSION:**

Anxiety is a multifaceted condition influenced by biological, psychological, and environmental factors, requiring integrative management strategies. Growing evidence highlights the significant role of diet in supporting mental health and modulating anxiety symptoms. Nutrient-dense foods rich in vitamins, minerals, antioxidants, and essential fatty acids contribute to optimal brain function and help regulate neurotransmitter activity. Additionally, plant-based interventions—including herbal teas and adaptogenic herbs—demonstrate potential in promoting relaxation and reducing stress responses. The interaction between diet and the gut-brain axis further emphasizes the importance of balanced nutrition. Consumption of fiber-rich plant foods and fermented products supports a healthy gut micro biome, which may positively influence mood and emotional stability. Turkey, bananas, and oats These foods are all good sources of the amino acid tryptophan, which is converted to serotonin in the body and may promote relaxation and anxiety relief. Meat and dairy products Meat and dairy provide high quality protein including essential amino acids that produce the neurotransmitters dopamine and serotonin, potentially improving mental health. Chia seeds are another good source of brain-boosting omega-3 fatty acids, which have been shown to help with anxiety. Citrus fruits and bell peppers These fruits are rich in vitamin C, While food-based approaches alone may not replace pharmacological or psychological treatments in moderate to severe cases, they serve as valuable complementary strategies. Incorporating whole foods, functional ingredients, and medicinal plants into daily dietary patterns offers a safe, accessible, and holistic approach to anxiety management. Future research should focus on clinical validation and standardized guidelines to strengthen the therapeutic application of

nutritional and plant-based interventions in anxiety care.

#### REFERENCE:

- [1] Penninx BW, Pine DS, Holmes EA, Reif A. Anxiety disorders. *Lancet*. 2021 Mar 6;397(10277):914-927. doi: 10.1016/S0140-6736(21)00359-7. Epub 2021 Feb 11. Erratum in: *Lancet*.397(10277):880. (2021)
- [2] Teleanu RI, Niculescu AG, Roza E, Vladăcenco O, Grumezescu AM, Teleanu DM. Neurotransmitters-Key Factors in Neurological and Neurodegenerative Disorders of the Central Nervous System. *Int J Mol Sci*. 23(11):5954. (2022)
- [3] Bamalan OA, Moore MJ, Al Khalili Y. Physiology, Serotonin. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing. (2026)
- [4] de Leon AS, Tadi P. Biochemistry, Gamma Aminobutyric Acid. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing. (2026)
- [5] Klein MO, Battagello DS, Cardoso AR, Hauser DN, Bittencourt JC, Correa RG. Dopamine: Functions, Signaling, and Association with Neurological Diseases. *Cell Mol Neurobiol*.39(1):31-59. (2019)
- [6] Munir S, Takov V. Generalized Anxiety Disorder. [Updated 2022 Oct 17]. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing. (2026)
- [7] Tunnell NC, Corner SE, Roque AD, Kroll JL, Ritz T, Meuret AE. Biobehavioral approach to distinguishing panic symptoms from medical illness. *Front Psychiatry*.15:1296569. (2024)
- [8] Hofmann SG. Cognitive factors that maintain social anxiety disorder: a comprehensive model and its treatment implications. *Cogn Behav Ther*.36(4):193-209. (2007)
- [9] Samra CK, Torrico TJ, Abdijadid S. Specific Phobia. 2024 Aug 12. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing. (2026)
- [10] Grupe DW, Nitschke JB. Uncertainty and anticipation in anxiety: an integrated neurobiological and psychological perspective. *Nat Rev Neurosci*.14(7):488-501. (2013)
- [11] Martin EI, Ressler KJ, Binder E, Nemeroff CB. The neurobiology of anxiety disorders: brain imaging, genetics, and psychoneuroendocrinology. *Psychiatr Clin North Am*.32(3):549-75. (2009)
- [12] Pilkington K, Wieland LS. Self-care for anxiety and depression: a comparison of evidence from Cochrane reviews and practice to inform decision-making and priority-setting. *BMC Complement Med Ther*.; 20(1):247. (2020)
- [13] Farach FJ, Pruitt LD, Jun JJ, Jerud AB, Zoellner LA, Roy-Byrne PP. Pharmacological treatment of anxiety disorders: current treatments and future directions. *J Anxiety Disord*.26(8):833-43. (2012)
- [14] Larrieu T, Layé S. Food for Mood: Relevance of Nutritional Omega-3 Fatty Acids for Depression and Anxiety. *Front Physiol*.9:1047. (2018)
- [15] Sah A, Naseef PP, Kuruniyan MS, Jain GK, Zakir F, Aggarwal G. A Comprehensive Study of Therapeutic Applications of Chamomile. *Pharmaceuticals (Basel)*.15(10):1284. (2022)
- [16] El-Saadony MT, Yang T, Korma SA, Sitohy M, Abd El-Mageed TA, Selim S, Al Jaouni SK, Salem HM, Mahmmod Y, Soliman SM, Mo'men SAA, Mosa WFA, El-Wafai NA, Abou-Aly HE, Sitohy B, Abd El-Hack ME, El-Tarabily KA, Saad AM. Impacts of turmeric and its principal bioactive curcumin on human health: Pharmaceutical, medicinal, and food applications: A comprehensive review. *Front Nutr*.9:1040259. (2023)
- [17] Samanta S, Sarkar T, Chakraborty R, Rebezov M, Shariati MA, Thiruvengadam M, Rengasamy KRR. Dark chocolate: An overview of its biological activity, processing, and fortification approaches. *Curr Res Food Sci*.5:1916-1943. (2022)
- [18] Ben Fredj S, Kechiche H, Chouchen A, Akkari I, Ghammam R, Zammit N, Douss N, Skhiri A, Maoua M, Maatoug J, Harrabi I, Maalel OE. Probiotic intake and mental health in healthy working adults: a systematic review and meta-analysis of randomized controlled trials. *BMC Psychol*.14(1):175. (2026)
- [19] Williams JL, Everett JM, D'Cunha NM, Sergi D, Georgousopoulou EN, Keegan RJ, McKune AJ, Mellor DD, Anstice N, Naumovski N. The Effects of Green Tea Amino Acid L-Theanine Consumption on the Ability to Manage Stress and Anxiety Levels: a Systematic Review. *Plant Foods Hum Nutr*.75(1):12-23. (2020)
- [20] Kolahi A, Movahed S, Tejareh F, Saeedy SAG, Gholizadeh M. The impact of almond supplementation on oxidative stress biomarkers: a systematic review and meta-analysis of randomized control trials. *Sci Rep*.15(1):29632. (2025)
- [21] Venable KE, Kelley DP, Jeanson A, Beyl R, O'Bryan S, Vatsavayi V, Jones S, Lee CC, Francis J. Effects of Blueberry Supplementation on Depression and Anxiety Symptoms in a Rural Louisiana Population. *Nutrients*.;17(23):3720. (2025)
- [22] Naidoo U. Eat to Beat Stress. *Am J Lifestyle Med*.15(1):39-42. (2020)
- [23] Aucoin M, LaChance L, Naidoo U, Remy D, Shekdar T, Sayar N, Cardozo V, Rawana T, Chan I, Cooley K. Diet and Anxiety: A Scoping Review. *Nutrients*.13(12):4418. (2021)