July 2025 # 76

BNHC E-MAGAZINE

BioNatural Healing College

Introducing a convenient way! ***Earn your diploma online with one of the most comprehensive study programs available in social network***

Online Master's Degree and 4 Diplomas

Offers a dynamic quality education to change and improve your quality of life by offering online education In convenient way.

FIND YOUR KEY TO SUCCESS!

Online Diploma and Master's Degree in BioNatural Health Sciences
Continue Accepting Application
To Apply, please get in touch with
info@bionaturalhealingcollege.org

Contents

On behalf of BioNatural Healing College (BNHC), it is with great pleasure that we extend Thanks & appreciation to **Mr. Mohammad Hussain Hassani, and Ms. Marmar Quraishi** *for their very informative research articles and contribution to this July 2025 BNHC E-Magazine edition. We look forward to receiving their invaluable contribution in the future and wish them all much success in their future endeavors.*

Message: from the President of BioNatural Healing College (BNHC)

Greetings,

With great humble praise to the Creator of creations (Almighty God) for the opportunity. We are pleased to welcome you to the July 2025 edition of the BioNatural Healing College (BNHC) E-Magazine. It is with sincere gratitude that we present this publication to our valued readers. We extend our heartfelt appreciation to all contributors, including our dedicated researchers and engaged readers, for their invaluable feedback and steadfast support.

This magazine is designed as an educational resource, offering diverse insights and expert perspectives from around the world. Please note that all content is intended solely for informational purposes, and the views expressed are those of the individual authors, independent of any official affiliation with BNHC.

We hope this edition serves as a valuable source of knowledge and inspiration, supporting your ongoing journey of learning and the sharing of wisdom throughout life's seasons. On behalf of the BNHC team, we wish you continued health, happiness, and prosperity.

Warmest regards,
Dr. Nadir Sidiqi, Ph.D.
BioNatural Healing College

BioNatural Healing College

Stands on 7 Core Pillar Foundations as follows

1. All living organisms ar made from water. This beautiful connection connects us to praise the Creator of Creation for the provision of feeding, fueling, and healing to humanity.

2. No harm to public health and environmental health (Biodiversity) including pollinators, surface water, groundwater, soil, and air

3. A series of complex chains involved with food production from the field to the mouth of the human body desperately needs scientific research to maximize healthy, nutritionally food production and end malnutrition and food insecurity.

4. Harmful pests such as insects, and pathogens causing to human and plant health and loss of economic problems. BioNatural chemicals from plants, microorganisms, and ocean-living organisms exist and need further research to discover along with safety to utilize for the health improvement of humans as well as BioNatural Pest Management (insects, fungi, bacteria, viruses, nematodes, weeds, rodents, etc.).

5. Listen, love, appreciate, and respect with deep conscience and subconscious the connection between the genes of your body and beautifully ecologically in sense of feeling, feeding,

6. The brilliant human mind can be irrigated with balanced drinking clean water as a whole-body system to detoxify the toxicant from their body systems as well as to detoxify the soil, water, and environment from harmful chemicals, particularly pesticides through collaboration, and dedication from the individual, family, community, and scientific community locally and globally.

7. BNHC provides a high-quality science-based foundation through online education to fit and accommodate the needs of each prospective student for the sustainability and prosperity of his or her own, family, community, and humanity.

Why is Nutrition Important? Impact on Public Health

By Mohammad Hussain Hassani
MS Student BioNatural Health Sciences at BioNatural Healing College (BNHC)

Abstract: Nutrition is a vital component of public health that profoundly influences individual and population health outcomes. Adequate and balanced nutrition supports physical growth, cognitive development, and the prevention of numerous chronic diseases, while poor nutrition contributes significantly to global health burdens, including undernutrition, micronutrient deficiencies, obesity, and diet-related non-communicable diseases. This paper explores the multifaceted relationship between nutrition and public health, examining how nutritional status affects disease prevalence, healthcare systems, and overall well-being. It investigates the causes and consequences of malnutrition, evaluates the effectiveness of community-based interventions, and highlights the role of food policy and global initiatives in shaping health outcomes. Drawing on evidence from both high-income and low- and middle-income countries, the paper presents case studies and strategic approaches to improving nutritional health at the population level. By emphasizing an interdisciplinary, thoughtful, and insightful approach to this vital relationship. This research underscores the urgent need for integrated policies, public education, and community engagement to address the ongoing and emerging challenges in public health nutrition.

Introduction: Nutrition plays a foundational role in human health and development, influencing physical growth, cognitive performance, immune function, and overall well-being across the lifespan. As a critical determinant of public health, nutrition shapes disease outcomes, impacts healthcare costs, and contributes to the economic productivity of nations. In both developed and developing countries, the burden of malnutrition-encompassing undernutrition, micronutrient deficiencies, and obesity-poses significant challenges to public health systems. For instance, vitamin A supplementation programs have reduced child mortality by 24% in low-income countries,

while Mexico's soda tax led to a 12% drop in sugary drink consumption within two years. These examples illustrate the profound, population-level impact of nutrition interventions. The 21st century has witnessed a complex nutrition transition characterized by changes in dietary patterns, increasing urbanization, and globalization of food systems. These shifts have contributed to a global rise in diet-related non-communicable diseases (NCDs) such as type 2 diabetes, cardiovascular disease, and certain cancers. Concurrently, food insecurity and undernutrition persist in many communities, particularly in low- and middle-income countries. Addressing this dual burden requires a robust public health nutrition approach that is multidisciplinary, equity-focused, and tailored to community needs. This paper explores the essential role of nutrition in public health, highlighting its influence on disease prevention, health promotion, and population-level outcomes. Drawing on recent evidence and case studies from rural, urban, and global contexts, the paper examines the determinants of nutritional health, the impact of policy and programs, and the future directions for public health leaders necessary to ensure nutritional well-being for all.

Understanding Nutrition and Its Role in Human Health: Nutrition is the biological and behavioral process through which organisms obtain and utilize food to support growth, maintenance, and health. In humans, nutrition is not merely a matter of food intake but a complex interplay of dietary quality, metabolism, environmental influences, and individual physiological needs. Optimal nutrition ensures the availability of essential nutrients-macronutrients (carbohydrates, proteins, fats) and micronutrients (vitamins and minerals) - that are necessary for maintaining body functions, supporting immune responses, promoting cognitive performance, and preventing disease. A well-balanced diet contributes directly to human health by reducing the risk of many chronic diseases, including cardiovascular disease, type 2 diabetes, certain cancers, and obesity.

For instance, adequate intake of fiber, whole grains, and healthy fats has been associated with reduced inflammation and improved metabolic profiles. Conversely, excessive consumption of sugar, sodium, and saturated fats has been linked to the rising prevalence of hypertension, atherosclerosis, and insulin resistance. The role of nutrition extends across the human lifespan. In infancy and childhood, proper nutrition supports physical and cognitive development, influences educational attainment, and reduces vulnerability to infections. During adolescence, nutritional demands increase due to rapid growth and hormonal changes. In adulthood and older age, nutrition contributes to maintaining energy levels, muscle mass, cognitive function, and delaying the onset of age-related conditions such as osteoporosis and dementia. Micronutrients, though required in small quantities, are crucial to health. Deficiencies in iron, iodine, vitamin A, and zinc are among the most common and can lead to severe health consequences such as anemia, impaired vision, developmental delays, and weakened immune systems. Globally, the persistence of such deficiencies continues to contribute to high morbidity and mortality, particularly in low-income regions.

Micronutrient	Key Function	Deficiency Impact
Iron	Oxygen transport, cognition	Anemia, impaired learning
Vitamin A	Vision, immunity	Blindness, infection risk
Iodine	Thyroid hormone synthesis	Goiter, cognitive delays
Zinc	Growth, immune function	Stunting, poor wound healing

Understanding the science of nutrition also requires recognizing the influence of genetics, lifestyle factors (such as physical activity and sleep), and socioeconomic conditions. Nutritional needs vary by age, sex, health status, and cultural background. For this reason, public health nutrition must be tailored to reflect these differences, ensuring equitable access to nutritious food and culturally appropriate dietary guidance. In essence, nutrition is not only a personal concern but a public health imperative. The success of preventive healthcare strategies increasingly depends on integrating sound nutrition education, policies, and interventions into broader health systems. By prioritizing nutritional well-being, societies can foster healthier, more productive populations and reduce the long-term burden on healthcare infrastructures.

The Relationship Between Nutrition and Public Health: Nutrition and public health are inextricably linked, as dietary behaviors and nutritional status are fundamental determinants of population health outcomes. Public health nutrition (PHN) is the field that bridges these domains by focusing on the promotion of healthy dietary practices, prevention of nutrition-related diseases, and improvement of food systems and policies to support population well-being. It operates at the intersection of nutrition science, epidemiology, behavioral science, policy, and social equity. From a public health perspective, nutrition plays a dual role: it acts as both a preventive and a therapeutic measure. Preventively, good nutrition reduces the risk of many non-communicable diseases (NCDs) such as obesity, cardiovascular disease, diabetes, and some cancers. Therapeutically, nutrition interventions can support disease management, reduce complications, and enhance quality of life for affected individuals. Malnutrition-whether undernutrition or overnutrition-remains one of the most significant contributors to the global burden of disease. The broader determinants of nutrition-including income, education, access to healthcare, food environment, and cultural norms-are central to public health interventions.

These determinants influence both the availability and the consumption of healthy foods. For example, food deserts in low-income urban and rural areas limit access to affordable, nutritious options, while aggressive marketing of ultra-processed foods shapes consumer preferences and dietary habits. Public health initiatives seek to address these systemic barriers by implementing policies, creating supportive environments, and fostering health literacy. Effective PHN strategies adopt a population-wide approach, addressing not only individual behaviors but also the socio-political and environmental context in which those behaviors occur. This includes implementing school-based nutrition programs, regulating food labeling and marketing, incentivizing healthier food production, and developing community-based food security initiatives. Multi-sector collaboration between public health departments, educational institutions, agricultural sectors, and urban planners is vital to ensuring a comprehensive approach to improving dietary behaviors and nutritional health. Nutrition surveillance and epidemiological data play a pivotal role in guiding public health nutrition actions. Tools such as the National Health and Nutrition Examination Survey (NHANES) and the Global Nutrition Report provide critical insights into dietary patterns, nutrient deficiencies, and the social gradients of nutrition-related health outcomes. These data inform targeted interventions and enable monitoring of progress toward national and global health goals, such as those outlined in the WHO Global Action Plan for the Prevention and Control of NCDs and the UN Sustainable Development Goals. Importantly, public health nutrition also emphasizes health equity. Marginalized populations such as low-income households, indigenous communities, and refugees often face disproportionately high rates of food insecurity and nutrition-related illnesses.

Addressing these disparities requires culturally sensitive and community-driven approaches that empower individuals while reshaping systems that perpetuate inequality.In summary, the relationship between nutrition and public health is foundational to advancing health equity, preventing disease, and promoting well-being. Public health nutrition serves as a powerful tool to translate nutrition science into actionable strategies that benefit entire populations. By embedding nutrition within public policy and community health frameworks, societies can cultivate sustainable improvements in health outcomes across diverse populations. By embedding nutrition within public policy and community health frameworks, societies can cultivate sustainable improvements in health outcomes across diverse populations. **Nutritional Interventions in Public Health:** Nutritional interventions are structured strategies and programs implemented to improve dietary practices, prevent or manage malnutrition, and reduce the risk of nutrition-related diseases at a population level. These interventions are a cornerstone of public health efforts globally, addressing both undernutrition and overnutrition across different age groups and socioeconomic contexts. Effective nutritional interventions consider the social determinants of health, cultural practices, resource availability, and evidence-based guidelines to maximize their impact. **Types of Nutritional Interventions:** Public health nutrition interventions can be broadly categorized into several key types: a. Supplementation Programs: These involve the provision of specific nutrients to targeted populations. For example, vitamin A supplementation has significantly reduced childhood blindness in many low-income countries, while iron and folic acid supplementation during pregnancy helps prevent anemia and neural tube defects. b. Food Fortification: This is a cost-effective and sustainable approach that involves adding essential nutrients to commonly consumed foods. Examples include iodized salt, fortified flour with iron and folic acid, and fortified milk with vitamin D. Food fortification has been particularly successful in improving micronutrient status without requiring individuals to change their eating behavior.

c. Behavior Change Communication (BCC) and Nutrition Education: These interventions aim to promote healthy eating behaviors through education, awareness campaigns, and community engagement. They may take the form of school-based programs, workplace wellness initiatives, or media campaigns promoting dietary guidelines such as increasing fruit and vegetable consumption or reducing sugar and sodium intake. d. Community-Based Nutrition Programs: These involve local engagement and empowerment, addressing both food access and consumption. Programs like community gardens, breastfeeding support groups, and mobile food markets help increase availability and intake of nutritious foods while building social cohesion and food literacy.... e. School and Institutional Feeding Programs: These ensure that children and vulnerable populations receive balanced meals, often in educational or caregiving settings. Programs like the National School Lunch Program in the U.S. and India's Mid-Day Meal Scheme are crucial in supporting child nutrition, school attendance, and cognitive development. f. Policy and Environmental Interventions: Public health nutrition also includes regulatory and policy-based approaches such as taxing sugary beverages, regulating food advertising (especially to children), mandating clear food labeling, and subsidizing healthy foods. These measures help shift food environments toward healthier norms and make nutritious choices more accessible. **Policies and Programs Supporting Nutritional Health** Nutrition-related policies and programs are essential tools for improving population health and addressing both undernutrition and the rising burden of diet-related chronic diseases. These policies influence food availability, affordability, and consumer behavior by shaping agricultural practices, regulating food marketing, and guiding public education. For example, national dietary guidelines, such as the Dietary Guidelines for Americans, provide evidence-based recommendations that inform school meal standards, healthcare practices, and community interventions. Effective public health nutrition programs often target vulnerable populations. Programs like the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and the Supplemental Nutrition Assistance Program (SNAP) in the U.S. provide nutritious food, health education, and support to low-income families.

Similarly, school feeding programs across the globe not only improve child nutrition but also increase school attendance and cognitive development. India's Mid-Day Meal Scheme is one such initiative that has successfully addressed child malnutrition at scale. Internationally, organizations like the WHO and UNICEF support national governments through initiatives such as the Global Action Plan on Nutrition and the Scaling Up Nutrition (SUN) Movement. These programs promote multisectoral collaboration and prioritize strategies such as food fortification, nutrition surveillance, and education campaigns. Countries like Brazil have demonstrated the effectiveness of integrated approaches-its Fome Zero (Zero Hunger) strategy successfully combined social protection with nutrition-sensitive agriculture and school feeding programs to reduce hunger and poverty. However, implementing and sustaining these efforts can be challenging. Common barriers include limited funding, political resistance-particularly from the food industry-and insufficient coordination between sectors. Moreover, programs must be culturally relevant and community-centered to ensure acceptance and impact. Moving forward, a greater emphasis on equity, participatory design, and policy coherence will be crucial to achieving long-term improvements in nutritional health. Case Studies: Effective Public Health Nutrition Practices Effective public health nutrition practices often emerge from community-driven, culturally tailored, and multisectoral interventions. One well-documented example is the EPODE (Ensemble Prévenons l'Obésité Des Enfants) program in France, which takes a whole-community approach to preventing childhood obesity. By involving schools, parents, healthcare providers, local governments, and the food industry, EPODE has helped reduce childhood obesity rates through change, environmental improvements, and consistent health messaging.

In Australia, the OPAL (Obesity Prevention and Lifestyle) initiative adapted a similar model, focusing on enabling communities to create healthier environments through access to nutritious foods, active lifestyles, and education. These programs highlight how long-term investment in local leadership and cross-sectoral coordination can yield meaningful public health outcomes. A compelling example from the United States is LiveWell Greenville, a community coalition in South Carolina that brings together schools, businesses, government, and faith organizations to improve access to healthy food and physical activity. Through policy advocacy and changes in school and workplace environments, LiveWell Greenville has advanced health equity and improved dietary behaviors. In a rural context, McDowell County, North Carolina, implemented the Community Engagement Project, which used forums and working groups to address food access challenges. The initiative successfully brought together local residents and stakeholders to design solutions, such as farmers' markets and school gardens, tailored to the county's needs. These case studies illustrate that public health nutrition interventions are most effective when they are inclusive, context-specific, and supported by sustainable policy and infrastructure. They emphasize the importance of community participation, cross-sector collaboration, and ongoing evaluation to adapt and refine approaches that can be scaled and sustained over time.

Future Directions and Research in Public Health Nutrition: The future of public health nutrition will focus on addressing the growing challenges of non-communicable diseases (NCDs) such as obesity, diabetes, and cardiovascular diseases, with an emphasis on understanding the role of nutrition in prevention and management. Research will explore sustainable food systems to ensure access to nutritious food while minimizingenvironmental impacts, particularly in the context of climate change.

Advances in digital health, including mobile apps and wearable devices, will provide new ways to monitor and improve dietary habits. Additionally, personalized nutrition based on genetics and the microbiome will offer tailored approaches to health. Public health nutrition will also increasingly focus on nutrition equity, addressing the social determinants of health and ensuring access to healthy food for vulnerable populations. Policymaking will play a key role, particularly in advocating for regulations that promote healthier food environments and reduce diet-related diseases. Finally, global collaboration and innovative interventions will be essential in tackling malnutrition and food insecurity on a worldwide scale. Conclusion In conclusion, the future of public health nutrition is poised to tackle an array of complex and interconnected challenges. As the global burden of non-communicable diseases continues to rise, the role of nutrition in disease prevention and management will become even more critical. With an increasing focus on sustainable food systems, the field must adapt to address the growing pressures of climate change and environmental degradation, ensuring that food production remains resilient and nutritious. The integration of digital health technologies will further revolutionize how individuals and communities engage with nutrition, offering personalized solutions to improve dietary behaviors. At the same time, personalized nutrition, informed by advances in genetics and the microbiome, holds the promise of more effective, tailored interventions for individuals. Addressing the social determinants of health and promoting nutrition equity will be vital to ensuring that all populations, particularly vulnerable groups, have access to nutritious foods. Public health nutrition must also continue to push for effective policies that create supportive environments for healthy eating, from food labeling and taxation to broader public health strategies.

Global collaboration will be key in sharing knowledge and scaling interventions that tackle malnutrition, food insecurity, and diet-related diseases worldwide. Ultimately, the future of public health nutrition is interdisciplinary, requiring cooperation among governments, researchers, practitioners, and communities. It will demand innovative solutions, a commitment to sustainability, and a focus on equity to improve health outcomes on a global scale. The continued advancement of research and the development of evidence-based strategies will be essential to navigating the evolving challenges of nutrition in public health, ensuring that all individuals, regardless of background or circumstance, can access the benefits of a nutritious and sustainable diet.

References

1. Mayo-Wilson E, Imdad A, Herzer K, et al. Vitamin A supplements for preventing mortality, illness, and blindness in children aged under 5: systematic review and meta-analysis. *BMJ*. 2011;343:d5094.

2. WHO eLENA Review Summary: Vitamin A supplementation for preventing morbidity and mortality in children from 6 months to 5 years of age. *WHO*.

3. Imdad A, Mayo-Wilson E, Herzer K, et al. Vitamin A supplementation for preventing morbidity and mortality in children from six months to five years of age. *Cochrane Database Syst Rev*. 2017.

4. Mexican National Institute of Public Health; Consumers International. *New study suggests Mexican soda tax works*. 2015.

5. Spence M, Schand C. Introduction to Public Health Nutrition. In: Barth MM, Bell RA, Grimmer K, eds. Public Health Nutrition. Springer; 2021.

6. Bouldin E, Grimmer K, Bell RA. Nutrition Epidemiology Principles. In: Public Health Nutrition. Springer; 2021.

7. Haynes-Maslow L, Pitts SBJ. Public Health and Food Policy. In: Public Health Nutrition. Springer; 2021....

8. Hege A, Farris A, Dailey A, Julian M. Promoting Nutritional Health. In: Public Health Nutrition. Springer; 2021.

9. Adams B, Probert KL. Community Assessments in Public Health Nutrition. In: Public Health Nutrition. Springer; 2021.

10. Soldavini J, Hildebrand C, Ammerman A. Public Health Nutrition Interventions and Evaluation. In: Public Health Nutrition. Springer; 2021.

11. Jones S, Lanigan D. Sustainability and Public Health Nutrition. In: Public Health Nutrition. Springer; 2021.

12. Chapman-Novakofski K, DiFilippo KN. Behavioral Aspects of Public Health Nutrition. In: Public Health Nutrition. Springer; 2021.

13. Templeton G, Hatik NDA, Campbell HA. Future Challenges in Public Health Nutrition. In: Public Health Nutrition. Springer; 2021.

14. U.S. Department of Health and Human Services. Healthy People 2030 Framework. https://health.gov/healthypeople

The Important Role of Nutrition in Mental Health

By Marmar Quraishi Student Nutrition & Brain Function Consultant Diploma at BioNatural Healing College (BNHC)

Abstract: Mental health is a critical aspect of overall well-being. Increasing evidence suggests that diet and nutrition play a significant role in maintaining and improving mental health. Nutrition in mental health refers to how the food we eat affects our brain function, mood, emotions, and overall mental well-being. The brain needs certain nutrients like vitamins, minerals, fatty acids, and protein to function properly. A healthy, balanced diet can: Improve mood and emotional stability. Reduce symptoms of anxiety and depression. Boost memory and concentration. Support better sleep and energy levels. Poor nutrition, like too much sugar, processed food, or a lack of nutrients and increases the risk of mental health issues. So, good nutrition is a key part of maintaining a healthy mind as well as a healthy body. This paper explores how nutrients influence brain function and mental wellness, examining specific dietary patterns, essential nutrients, and the biological mechanisms that connect nutrition and the brain.

Introduction: Mental health is a critical aspect of overall well-being. Increasing evidence suggests that diet and nutrition play a significant role in maintaining and improving mental health. Mental health disorders such as depression, anxiety, and cognitive decline affect millions of people worldwide. Traditionally, treatment has focused on psychotherapy and pharmacological interventions. However, recent studies emphasize the role of lifestyle factors-particularly nutrition the prevention and treatment of mental health problems. The emerging field of nutritional psychiatry investigates how diet affects mental health and provides insight into how dietary interventions may support psychological well-being.

Brain and nutrients: the biological connection. The brain, a metabolically active organ, requires a steady supply of nutrients to function effectively. Essential fatty acids, amino acids, vitamins, minerals (such as zinc and magnesium), and antioxidants are critical in neurotransmitter synthesis, inflammation regulation, and neuroplasticity. For example, omega-3 fatty acids, found in fish and flaxseed, are associated with reduced risk of depression and improved cognitive function. **Diet and mental health: what the research says:** Numerous epidemiological studies have shown a correlation between diet quality and mental health outcomes:

- A Mediterranean diet rich in fruits, vegetables, whole grains, nuts, and olive oil is associated with lower rates of depression and anxiety.
- Diets high in processed foods, sugar, and unhealthy fats correlate with increased risk of psychological distress and depressive symptoms.
- Adolescents consuming nutrient-poor diets are more likely to develop behavioral and mood disorders.

Gut-brain axis: the role of microbiome. The gut-brain axis is a complex communication network linking the gastrointestinal tract and the brain. Recent research highlights how gut microbiota influences mental health through the production of neurotransmitters, immune modulation, and hormone regulation. Probiotics and prebiotics found in fermented foods, yogurt, and fiber-rich plants may improve symptoms and relieve depression and anxiety by promoting healthy gut bacteria. **Nutritional interventions in mental treatment:** Clinical trials have shown that dietary interventions can be effective as adjunct therapies for mental disorders. Demonstrated that participants with major depression who received dietary support experienced significantly greater improvements compared to those who received social support alone.

Moreover, supplementation with specific nutrients such as omega-3s, vitamins, and magnesium has been beneficial in treating mild to moderate depression and ADHD (Attention-Deficit/Hyperactivity Disorder). **Challenges and considerations:** While the evidence is promising, nutritional psychiatry faces challenges such as individual variability in diet response, socioeconomic barriers to healthy eating, and the need for more large-scale, long-term studies. Healthy professionals must be cautious in generalizing findings and should integrate nutritional advice with standard medical care. **Key nutrients that impact mental health include:** 1. Omega-3 fatty acids found in fish, chia seeds, flaxseeds, and walnuts support brain structure and may reduce symptoms of depression and anxiety. 2. B vitamins (especially B6, B12, and folate) are Crucial for energy and neurotransmitter production, energy, and mood regulation. 3. Vitamin D: Often known as the "sunshine vitamin," Supports mood and has been linked to lower levels of depression. 4. Magnesium and zinc: Help calm the nervous system and regulate the stress response. Important for brain function and the regulation of stress responses. 5. Amino acids (from protein) are building blocks of neurotransmitters like serotonin and dopamine.

Nutrition and mental disorders

- Depression: often tied to inflammation and nutrient deficiencies. Diets rich in anti-inflammatory foods (berries, leafy greens) are beneficial
- ADHD: Omega-3s and elimination of artificial colors and preservatives may help.
- Anxiety: caffeine and sugar can worsen symotoms sympthoms, while magnesium, complex carbs, and herbal teas may calm the nervous system.
- Schizophrenia and bipolar disorders require medication, but balanced nutrition supports medication effectiveness and cognitive function.

Nutrition and mental health*:* In lifestyle medicine, nutrition is one of the foundational pillars that affect virtually all chronic diseases. It is recommended that dietary considerations are fundamental components of standard therapy for mood disorders in the Clinical Practice Guidelines for Mood Disorders of the Royal Australian and New Zealand College of Psychiatrists. This reflection highlights the growing impact of nutritional interventions on managing mental health. The intricate interplay between nutrition and mental health is rooted in the possible finding of its underlying mechanism, elucidated in later portions of the article. However, it is worth noting that the body's response to pathogenic exposure, like bacteria and viruses, can evoke symptoms akin to depression, thereby resulting in low mood and low energy. Thus, such a relationship has led many studies to hypothesize that highly processed foods may be perceived by the human body as foreign invaders, resulting in depressive symptoms when consumed. Highly processed foods with man-made origins can cause inflammation and may be deemed "anthropogens ". It is important to note that all these anti-inflammatory and neutralizing agents are natural and have been used by humans for hundreds or thousands of years (e.g., fruits and nuts). **Role of nutrition in mental well-being:** A nationwide survey conducted in the Spanish population above the age of 18 found a small but statistically significant inverse relationship between adherence to the Mediterranean diet and negative effects. The association between Mediterranean diet adherence and evaluative well-being was also small but significant. Young adults reported eating more fruit and vegetables on days when they experienced greater positive effects, according to White et al. Further, fruit and vegetables tended to be associated with positive affect the next day, suggesting that healthy foods cause affective experiences. Among children, O'Reilly et al found that higher fiber intake was associated with higher positive affect (PA) ratings and lower negative affect. Negative effects ratings were also lower in diets with lower usual glycemic loads.

***Conc*lusion:** In conclusion Nutrition plays a vital and often underestimated role in supporting and maintaining mental health. Continue next page

Scientific evidence increasingly shows that what we eat can significantly influence brain function, mood stability, emotional regulation, and the risk of developing mental health disorders. Nutrients such as omega-3 fatty acids, B vitamins, vitamin D, magnesium, and zinc are essential for healthy brain chemistry and the production of neurotransmitters that regulate mood and cognition. Healthy dietary patterns like the Mediterranean diet and balanced whole food diets have shown positive effects on mental well-being, while poor eating habits are linked to increased rates of depression, anxiety, and cognitive decline. The gut-brain axis demonstrates how a healthy gut can improve mental health through microbial balance and hormone production. As the field of nutritional psychiatry grows, it becomes clearer that food should be considered a key factor in mental health treatment and prevention. Encouraging a nutrient-rich, well-balanced diet not only benefits physical health but also serves as a powerful tool in nurturing emotional resilience and psychological balance. Therefore, promoting proper nutrition must be an integral part of public health strategies and mental health care.

References

1. Gómez-Pinilla, F. (2008). Brain foods: the effects of nutrients on brain function. *Nature Reviews Neuroscience*, 9(7), 568–578.

2. Mikkelsen, K., Stojanovska, L., Prakash, M., et al. (2016). The effects of vitamin B on the brain: a review. *Nutrients*, 8(11), 68.

3. Lassale, C., Batty, G. D., Baghdadli, A., et al. (2019). Healthy dietary indices and risk of depressive outcomes. *Molecular Psychiatry*, 24(7), 965–986.

4. Jacka, F. N., Kremer, P. J., Berk, M., et al. (2010). Association between diet quality and depressed mood in adolescents. *Psychiatry Research*, 170(2-3), 149–155.

5. O'Neil, A., Quirk, S. E., Housden, S., et al. (2014). Relationship between diet and mental health in children and adolescents. *Frontiers in Public Health*, 2, 70.

6. Dinan, T. G., & Cryan, J. F. (2017). The microbiome-gut-brain axis in health and disease. *Gastroenterology Clinics*, 46(1), 77–89.

7. Sarkar, A., Lehto, S. M., Harty, S., et al. (2016). Psychobiotics and the manipulation of bacteria–gut–brain signals. *Trends in Neurosciences*, 39(11), 763–781.

8. Jacka, F. N., O'Neil, A., Opie, R., et al. (2017). A randomized controlled trial of dietary improvement for adults with major depression. *BMC Medicine*, 15(1), 23.

9. Rucklidge, J. J., & Kaplan, B. J. (2013). Broad-spectrum micronutrient treatment for psychological symptoms. *Clinical Psychology Review*, 33(7), 1010–1023.

10. Benton, D. (2008). Micronutrient status, cognition and behavioral problems in childhood. *Proceedings of the Nutrition Society*, 67(4), 477–487

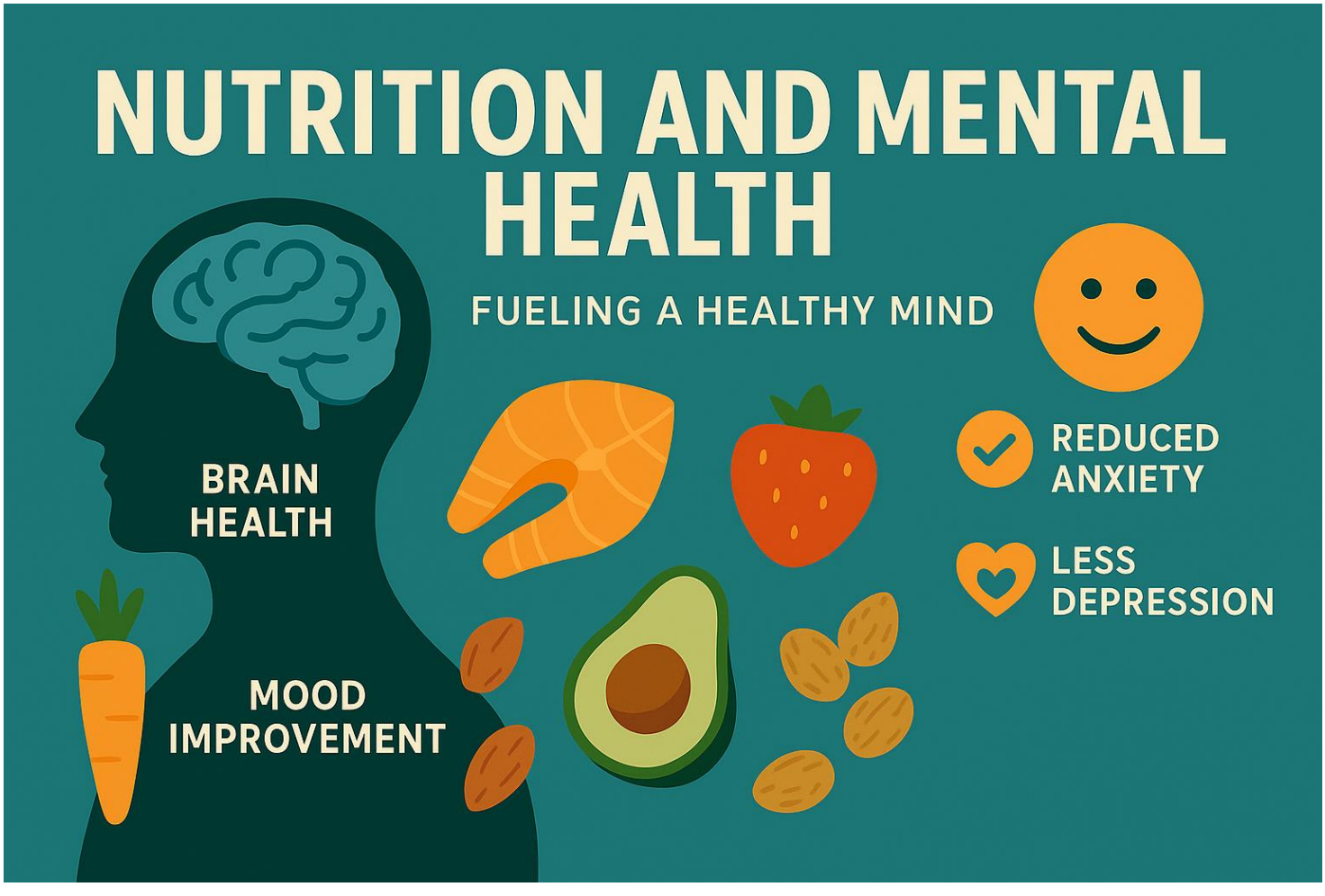
11. Jacka, F. N. et al. (2017). *Nutritional psychiatry: Where to next

12. O'Neil, A. et al. (2014). *The impact of diet on mental health*.

13. Logan, A. C., & Jacka, F. N. (2014). *Nutritional psychiatry research*.

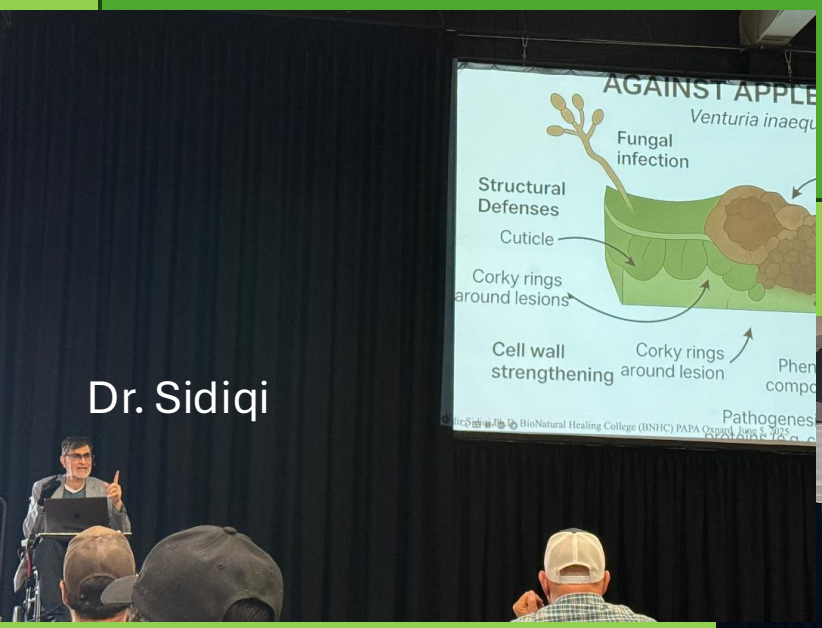
14. Rucklidge, J. J., & Kaplan, B. J. (2013). *Nutrition and mental illness*.

15. Gómez-Pinilla, F. (2008).



Conference

Dr. Nadir Sidiqi was invited Speaker on June 5, 2025. at Pesticide Applicators Professional Association (PAPA) Title of Presentation: Identifying and Managing Apple Scabs and Other Fungal Diseases Oxnard, California



Dr. Sidiqi

"BioNatural Healing College (BNHC) sincerely appreciates your generous contribution towards the Gift of Education. Your donation plays a pivotal role in supporting scholarships for students in need, empowering them to achieve their educational aspirations. We extend our deepest gratitude for your generosity and commitment to education."

Scholarship Waiting, List Students	Online Diploma/ MS Degree

1. Ms. Barge Gul Khalil MS degree Tuition Fee $2500
2. Ms. Almehra Shams MS degree Tuition Fee $2500
3. Ms. Yahda Atmar MS degree Tuition Fee $2500

BNHC is a Nonprofit Online Institution that offers Online 4 Diploma/Master in BioNatural Health Sciences.

Online MS Degree in BioNatural Health Sciences (Focuses on Human Health Improvement & Disease Prevention, Nutrition, Phytonutrients, Lifestyle Biological Modification, Holistic, Ecological Approaches)

BioNatural Healing College

ONLINE EDUCATION
Under Highly Qualified Professors

BNHC Offers 4 Diplomas Online

1. Herbal Science & Master Herbalist
2. BioNatural Pest Management
3. Plant-Based Nutrition 4. Nutrition & Brain Function Consultant

Convenient to start at any time from your comfort z

Reasonable tuition fee with option plans *available*

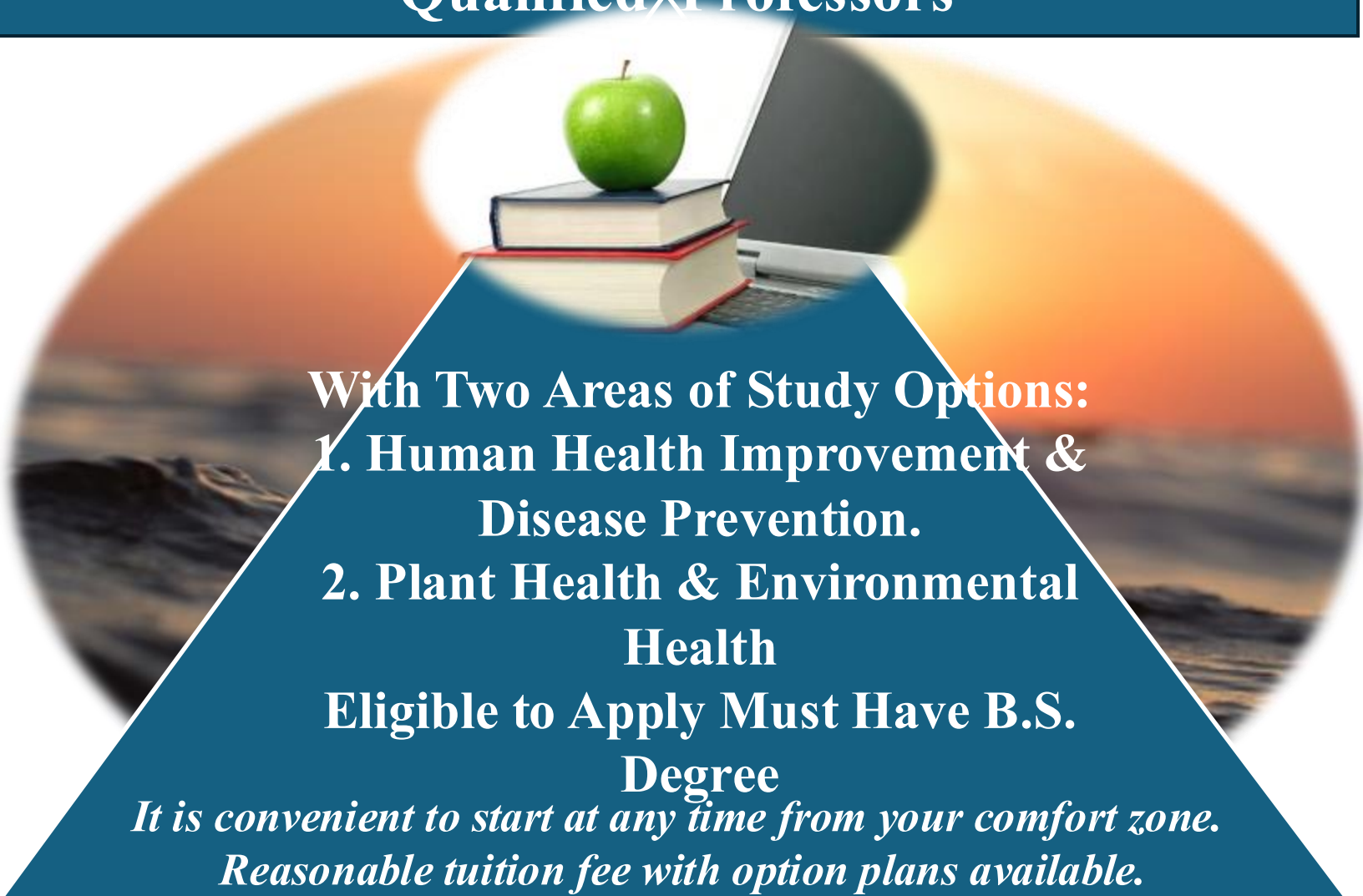
FOR MORE INFORMATION PLEASE CONTACT US:

PH: 909-242-6342 OR AT Email:

info@bionaturalhealingcollege.org

BioNatural Healing College

ONLINE EDUCATION (BNHC)
Offers Master's Degree in BioNatural Health Sciences Under Highly Qualified Professors



With Two Areas of Study Options:

1. Human Health Improvement & Disease Prevention.

2. Plant Health & Environmental Health

Eligible to Apply Must Have B.S. Degree

It is convenient to start at any time from your comfort zone.

Reasonable tuition fee with option plans available.

FOR MORE INFORMATION PLEASE CONTACT US:

PH: 909-242-6342 OR AT Email:

info@bionaturalhealingcollege.org

BIONATURAL HEALING COLLEGE (BNHC)

PLEASED TO ANNOUNCE

OFFERS APPROVED 7 HOURS CONTINUING EDUCATION: IN-PERSON SEMINARS FOR THE STATE OF CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION.

DATES: 7/22/25, 8/19/25, 9/23/25, 10/21/25, 11/18/25, 12/12/25

LOCATION: POMONA, CALIFORNIA

- **PLEASE CALL FOR REGISTRATION, LOCAL CA DPR LICENSE**

Mission: BioNatural Healing College (BNHC) is a non-profit public benefit institution that has tax-exempt status under the Internal Revenue Service, Section 501(c)(3) of the United States of America. Our goal is to offer a high-quality education a diploma program as well as holistic health and nutrition conferences, seminars, workshops, and continuing education. The focus of these educational programs is to offer healing and holistic nutrition science through online distance learning. These dynamic online education programs will provide diverse adult learners throughout the world the experience of enhancing their quality of life, their health, and their happiness.

Vision: The faculty, staff, and management team of BioNatural Healing College (BNHC) are passionately committed to providing the best teaching possible in this field. We seek to encourage, motivate, and explain the importance of this field to prospective students so that they may make an informed decision regarding enrollment. We seek an ultimate goal of satisfaction for the student based on responsibility, commitment, respect, awareness, and sustainable education for society.

Accreditation and Recognition: BioNatural Healing College (BNHC), based in California, is dedicated to providing high-quality online education, and vocational online distance learning to students worldwide. As a legally recognized institution, it is authorized to operate by the State of California's Bureau for Private Postsecondary Education, by the established educational code. While BioNatural Healing College is not accredited by the United States Department of Education, BNHC is a member of the Agronomy Society of America, Crop Science Society of America, Soil Science Society of America and American Holistic Health Association (AHHA), reflecting its commitment to a holistic and ecological approach to human health and environmental health improvement education.