

Nutrition Role In Psychological Disorder

Fatema. Murtuza. Bhavnagarwala

Food science and Nutraceutical, B.K Birla College, Kalyan, India

ABSTRACT:

Even if the latest research supports the relevance of nutrition for mental health, many psychologists shy away from addressing dietary intake with patients because they wonder whether doing so falls inside their preview of practice. This article offers psychologists a review that is specifically concerned with the relationship between what we eat and how we feel. Eating a balanced diet made up of whole foods is essential for promoting mental health restoration and maintenance. We start by going through a few ways that nutrition promotes brain health. People will be better able to appreciate the significance of optimizing their intake of a variety of nutrients to maximize their mental health because no single nutrient is sufficient for this purpose. And We then review the research on diet and mental health before taking into account any factors that might make a client need more nutrients

Keywords: Psychology, Nutrition, Mental Health, Dietary Components of Autism, ADHD.

Introduction:

A holistic approach to mental health is multifaceted. The following must be in balance for optimal health: (Dr.Rania, 2022)

Physical health: The condition of one's physical well-being, which includes things like their food, their capacity for everyday tasks, how much sleep they get, etc., in addition to the absence of disease or illness.

Mental Health Referring to a person's emotional, psychological, and social well-being, influences the ability to handle stress, make decisions, etc., as well as moods and behavior.

Emotional well-being: How someone perceives, feels, and reacts to different situations (negative, positive, etc.). encompasses the capacity to identify and react to both positive and negative emotions including tension, joy, guilt, and anxiety.

Social-behavioral health: Is the area of health that deals with how a person's health community engages with and responds to other people and groups. It affects one's capacity to establish and grow interpersonal relationships.

Spiritual health: Concerning people, religion, and spiritual awareness.

Currently, one in five people suffers from a mental health condition. This is extremely unsettling because a mental health issue in one person affects the entire family, making the total number of people impacted considerably higher. But for more than 50 years, modern medicine has attempted—mostly ineffectively—to use drugs to treat mental illnesses. (Ph.D, 2021)

According to a 2017 estimate of the number of persons who must provide care for mental health disorders across the states of India, that number might reach 197.3 million.

The recovery and relapse rates now are no better than they were fifty years ago, before the invention of pharmaceuticals, despite the rising usage of antidepressants. The Centers for Disease Control (CDC) reports that from 2000 to 2016, the suicide rate in the United States climbed steadily. (“Report: Mental Health Among Toughest Global Health Challenges,” 2018)

According to WHO estimations, India has a disability-adjusted life year burden of 2443 per 100,000 people and an age-adjusted suicide rate of 21.1 per 100,000 people. 1.03 trillion USD are projected to be lost in economic output between 2012 and 2030 as a result of mental health issues. (Ph.D, 2021)

What if this crisis has a solution? What if the standard first line of defence for mental health concerns was no longer expensive, widely ineffective, and side effect-laden pharmaceuticals? What if we could dispel this social stigma by demonstrating that many mental health symptoms are not "wrong" with people at all, but are frequently the result of poor nutrition? What if the appropriate nutritional approach to treating mental health disorders might help society save up to 90% of the cost of providing mental healthcare?

What if altering your diet is one way to deal with this crisis? There is a lot more to nutrition than you might think. Diabetes, heart disease, and early death are all well-known. However, a serious risk factor for the emergence of mental disease is poor nutrition. (Ph.D, 2021)

Why? Because our brains utilize the majority of the calories and nutrients we ingest, how you feel and think tomorrow will depend on what you consume now. Many individuals are unaware of that. They might believe that eating well is necessary for overall health, but they may not understand how crucial it is for greater mental health.

NUTRITION: An organism uses food to sustain its existence through a biochemical and physiological process known as nutrition (Baronporpoise, 2022). It gives living things nutrition that can be processed to produce energy and chemical building blocks. Malnutrition results from insufficient dietary intake. Although it frequently focuses on human nutrition, nutritional science is the study of nutrition.

Carbohydrates, lipids (mostly fats and oils), proteins, vitamins, minerals, and water are the six categories of nutrients that may be found in a diet. The majority of the diet is made up of carbohydrates, fats, and proteins, which collectively weigh a little over one pound (or 500 grams) every day. These macronutrients provide the building blocks for maintaining and repairing tissues as well as the energy needed to power the numerous physiological and metabolic processes required to maintain life.

PSYCHOLOGY:

The scientific study of the mind and behavior is called psychology. The study of conscious and unconscious events, such as emotions and thoughts, is included in psychology. It is a field of study that bridges the scientific and social sciences and has a huge reach. Psychologists are interested in learning about the brain's emergent features, which connects psychology to neuroscience. Psychologists seek to comprehend both individual and community behavior in their roles as social scientists. (Association, 2013)

AUTISM: According to the Diagnostic and Statistical Manual, Fifth Edition of the American Psychiatric Association (DSM 5) *, autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by symptoms like "restricted, repetitive patterns of behavior, interests, or activities" and "persistent deficits in social communication and social interaction across multiple contexts." Examples of these two major groups are provided by the DSM 5: (Maria Luisa Scattoni · Martina Micai, 2021)

persistent deficiencies in social engagement and communication in a variety of circumstances, as shown by:

- Lack of social-emotional reciprocity, which can take many different forms, including the inability to initiate or participate in social encounters, atypical social approach, and failure to engage in regular back-and-forth dialogue
- Deficits in nonverbal communicative behaviors utilized for social interaction, such as improper eye contact, inappropriate body language, a lack of comprehension and use of gestures, or a complete lack of facial emotions and nonverbal communication.
- Deficits in creating, maintaining, and comprehending connections, such as challenges in changing behavior to fit different social circumstances, challenges in engaging in imaginative play or establishing friends, or lack of interest in peers.

Restricted, recurring hobbies, behaviors, or activities, as demonstrated by at least two of the following:

- Extremely constrained, concentrated, or abnormally intense or focused interests (e.g., strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).
- Excessive sensitivity to certain noises or textures, hyper- or hypo-reactivity to sensory input, or unusual interest in sensory components of the environment (such as a blatant disregard for pain or temperature, excessive touching or sniffing of items, or a preoccupation with lights or movement).

These symptoms are the result of underlying difficulties with a child's capacity to take in the environment via their senses and respond to it with their body and brain. When these difficulties are severe, they hinder a child's development and learning and may result in an autism diagnosis. (Dr James Cusack)

ADHD: It is a neurodevelopmental illness called, Attention deficit hyperactivity disorder (ADHD) that is characterized by persistent, age-inappropriate levels of hyperactivity, impulsivity, and inattention.

Executive dysfunction is the root cause of ADHD symptoms, and emotional dysregulation is frequently seen as a fundamental symptom. Children who have attention issues may do poorly in school. ADHD is linked to numerous neurodevelopmental, mental, and non-psychiatric diseases, which can worsen symptoms, particularly in contemporary culture. While persons with ADHD find it difficult to focus on things they are not especially interested in finishing, they are frequently able to maintain an abnormally lengthy and intense degree of concentration for projects they find engaging or rewarding. This is known as hyperfocus.

In most situations, the specific reasons for ADHD remain unknown. Genetic factors are important; ADHD has a 74% heritability rate and tends to run in families. Environmental dangers may include toxins, infections, and brain damage during pregnancy.

When diagnosed using the DSM-IV criteria, it affects roughly 5-7% of kids, while when diagnosed using the ICD-10 criteria, it affects about 2% of kids. Rates are comparable across nations, and variations in rates are mostly influenced by the method of diagnosis. ADHD is diagnosed twice as frequently in boys as in girls, and 1.6 times more frequently in men than in women, despite the fact that females are sometimes not diagnosed with the illness or are diagnosed with it much later in life due to symptoms that don't always match the diagnostic criteria. 2.58% of adults are thought to have ADHD that first manifested in childhood. About 30-50% of those who were diagnosed

with ADHD as children continue to have it as adults. Adults often experience more hyperactivity than restlessness, and they frequently learn coping mechanisms to make up for their limitations. It might be challenging to distinguish the disease from other conditions as well as from elevated levels of activity that fall within the norm. It is now well known that people with ADHD suffer from poor health-related quality of life, which may be made worse by or increase the likelihood of developing other mental illnesses such as anxiety and depression. (Julia J Rucklidge, Mairin Taylor, 2011) The most common suggestions for managing ADHD involve a mix of medication, therapy, and lifestyle modifications. The British recommendation prioritizes individualized education and environmental changes while focusing on ADHD as the initial treatment. Based on age, parent education, medication, or psychotherapy (particularly cognitive behavioral therapy) may be advised if symptoms continue. (Ph.D, 2021)

Knowing the Relationship Between Autism and Nutrition

The vitamins, minerals, amino acids, essential fatty acids, and calories in a diet have a significant impact on your child's brain development. For instance, if your child is not getting enough of these essential nutrients, it affects his ability to produce neurotransmitters, create the myelin sheath in his brain, burn glucose, and process visual and cognitive information. His brain function may be compromised if he consumes excessive amounts of sugar and artificial additives, which may also contribute to his behavioral and academic issues. Cleansing procedures. To support your liver's natural elimination of dangerous neurotoxins like mercury, lead, arsenic, cadmium, dioxins, PCBs, pesticides, and solvents from your body, you must ingest zinc, selenium, magnesium, beta carotene, vitamin A, vitamin E, and choline. A lower IQ, learning problems, attention deficit, hyperactivity, impulsivity, obsessive behavior, aggressiveness, violence, speech issues, memory impairment, motor dysfunction, developmental delays, and mental retardation may result from your child being exposed to these neurotoxins. Digestive system (GI) wellness. For healthy bowel movements, the GI system needs a steady supply of vitamins and minerals in addition to the amino acid glutamine. Your child's capacity to absorb the nutrients he gets from food is jeopardized if he or she has nutritional deficiencies, which can impede new cellular growth in the gastrointestinal system. This worsens other dietary inadequacies that have an impact on the body and brain. (Julia J Rucklidge, Mairin Taylor, 2011)

Immune system performance. Vitamins C, A, E, D, and B vitamins, iron, selenium, zinc, and bioflavonoids are essential for the healthy operation of our immune system. Your child is more likely to acquire allergies, recurrent ear infections, acute and chronic diseases, and upper respiratory infections if they have a poor diet. Your child's ability to respond to treatment will be further hampered if he is always battling illness and misses school and therapy appointments.

Autism Frequently Associated with Nutritional Issues. Children with autism, Asperger's, PDD-NOS, ADD, and ADHD are significantly more likely to experience one or more of the following dietary issues:

- Poor diet
- nutritional deficiencies
- feeding problems
- food allergies
- food intolerances
- chemical sensitivities
- gastrointestinal disorders
- exposure to neurotoxins
- frequent illnesses and infection
- negative drug and nutrient interactions. (Ph.D, 2021)

NUTRITIONAL INTERVENTIONS USED TO TREAT AUTISM

The following is a list of the dietary therapies that the autism community uses most frequently:

Diets

- Gluten Free Casein Free

Elimination/Challenge

- Specific Carbohydrate Diet (SCD)
- Rotation
- Antifungal
- Feingold

Basic Nutrition Supplements

- multivitamins and minerals

High-Dose Vitamins

- vitamin B6

Nutrients, Herbs, and Nutraceuticals

Probiotics	proanthocyanidins
Antifungal	N-acetylcysteine (NAC)
Digestive enzymes	alpha-lipoic acid (ALA)
Amino acids	antioxidants
Dimethylglycine (DMG)	pyridoxal five phosphate (P5P)
Trimethylglycine (TMG)	carnosine
coenzyme Q10	carnitine
phosphatidylcholine	glutathione
Bioflavonoids	vitamin B12

Nutrition and ADHD

A happy and healthy lifestyle depends on eating a healthy, balanced diet. A balanced diet can be an efficient additional strategy for reducing some ADHD symptoms.

However, examining you are eating patterns honestly and determining what is best for you or your child may be a challenging task. The risk of several chronic illnesses, including heart disease, can be reduced by eating healthfully, according to the Centers for Disease Control and Prevention (CDC). Exercise and physical activity are also advised as a component of a healthy lifestyle overall.

Dietary strategies for ADHD involve removing one or more items from the diet of the patient (for example, sugar, candy, and food with red dye). It is believed that sensitivity to particular foods may contribute to or exacerbate ADHD symptoms.

Copious quantities of vitamins and nutritional supplements can provide nutrients that some people feel are lacking in a diet. Some individuals believe that dietary supplements might help with ADHD symptoms. (Julia J Rucklidge, Mairin Taylor, 2011)

You may find the U.S. Department of Health and Human Services (DHHS) dietary recommendations here.

Meal Planning

What you eat counts when it comes to ADHD! Although meal planning and preparation are excellent healthy eating habits, they can be difficult for those with ADHD. Any meal requires planning, organization, decision-making, and the ability to follow a few stages. Many people with ADHD give up on cooking for themselves out of frustration and opt to dine out or order in. Unfortunately, meals from restaurants and takeaways frequently lack vital minerals that your body needs.

What consumers need to know about choosing and using Omega-3 or Omega-6 fatty-acid supplements for ADHD

Supplementing with polyunsaturated fatty acids (PUFAs), such as fish oil, is not an FDA-approved therapy for ADHD. Mixed data support its impact on ADHD. However, another analysis found "no evidence that PUFA supplementation provides any benefit for the symptoms of ADHD in children and adolescents." Two recent meta-analyses (careful statistical assessment of multiple papers) found that it had a slight effect on ADHD symptoms. More investigation is required. The evidence that is currently available points to:

Any advantage from fatty acid supplementation pales in comparison to therapy with FDA-approved prescription medication for ADHD.

It takes three months to add any advantage. Essential fatty acids, or PUFAs, are crucial for good health. Similar to vitamins and minerals, just little quantities daily are required. Huge doses may provide some harm, especially if they are not combined with antioxidant vitamins like E and C.

Essential fatty acids come in two varieties: omega-3 and omega-6. Omega-3 is in short supply whereas omega-6 is prevalent in most contemporary diets.

EPA (20 carbons long), DHA (22 carbons long), and alpha-linolenic acid are the three major omega-3 PUFAs (ALA, eighteen carbons). In marine oils, you can find the first two (fish, krill, seal, whale). Some vegetable oils, including flaxseed oil, contain ALA.

The combination of EPA, DHA, and gamma-linolenic acid, an omega-6 PUFA, has shown the most promising benefits (GLA). But EPA could be the most significant of these. For EPA, one meta-analysis discovered a dosage response.

A PUFA supplement is not the same as another. The ratios of the different fatty acids vary between formulations.

Even if it does not improve ADHD, moderate quantities of omega-3 PUFAs may be beneficial for cardiovascular and general health. (Ph.D, 2021)

Despite the fact that cod liver oil contains a lot of omega-3 fatty acids, excessive concentrations of vitamins A and D are a reason why it is not advised as a supplement. The omega-3 fatty acids in flax seed oil are likewise abundant, but flax seed oil is not the suggested kind of fatty acid supplement for kids with ADHD.

- (1) EPA = eicosapentaenoic acid
- (2) DHA = docosahexaenoic acid
- (3) GLA = gamma-linolenic acid

Conclusion

An unhealthy lifestyle may be linked to poor mental health since mental health is a crucial and fundamental part of physical health. According to scientific research, maintaining good lifestyle habits together with a well-balanced and diverse diet that includes both micro- and macronutrients is essential for maintaining optimal brain function. This tactic is especially crucial when you realize that as people age, their brains continue to suffer from the effects of stress throughout their lives.

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