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## Exploring the Interplay Between Physical and Mental Health



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## Introduction

Although many people view physical and mental health as two very different components of overall well-being, these two aspects of overall health influence and interact with each other in various ways. When individuals are mentally healthy, they can sustain or improve their physical health and vice versa. Physical and mental health have a biological connection, significantly impact each other, influence lifestyle factors, and affect resilience and coping. Many people in the United States are experiencing a decline in their mental and physical health and fail to recognize how the two are intimately intertwined. Understanding how biological, psychological, and social factors interplay and the specific implications of mental and physical health on one another can help practitioners develop interventions and practical strategies to assist those who are struggling and seeking their services.

## Defining Physical and Mental Health

### Physical Health and its Components

Physical health is how well one's organs and body systems function. It includes body systems functioning (e.g., the digestive system breaks down food), body parts functioning (e.g., fingers on hand all move independently), and senses functioning (e.g., clear vision, good hearing) (Marshall-Seslar, 2022).

There are five components that impact physical health:

## 1. Lifestyle Choices

One of the most significant impacts on physical health is lifestyle choices. This is also an area that individuals have control over (unlike biology). Areas that fall under lifestyle choices include:

- **Diet:** Eating regular meals that are nutrient-dense and well-balanced in carbohydrates, protein, fat, vitamins, and minerals.
- **Substance Use:** Reducing or eliminating tobacco, alcohol, and drugs. Using prescription medications only as prescribed by a doctor.
- **Sleep:** Sleep supports one's body and brain in recovering and restoring energy.
- **Physical Activity:** Physical activity supports healthy bones, muscles, and heart, and one should strive to be physically active daily.
- **Stress Management:** Stress is a normal part of life, but too much of it or experiencing it over too long a period of time can take a toll on one's physical health.

## 2. Biology

Genetics plays a role in physical health, and since they are inherited, no one has a choice in what genetics they get. It is important to remember that a disease, disability, or genetic disorder does not mean one can't be physically healthy. It may require extra support, such as from a physical therapist or recreational therapist, to meet one's goals.

## 3. Environment

There are numerous environmental issues within one's home or community that could impact one's physical health. Examples include household mold, contaminated drinking water, and pollution in the air and soil.

#### 4. Access to healthcare

Routine check-ups with one's doctor, dentist, or another medical professional can help identify issues early, helping to prevent serious health problems from developing. However, everyone cannot afford a doctor's visit, and not having access to health care perpetuates health inequity. Health inequities such as lack of prenatal care and poor health care in the early years can impact children's overall well-being

#### 5. Health education

Health education helps improve skills, knowledge, attitudes, and behavior, which allows people to make informed decisions about their health (Marshall-Seslar, 2022).

## **Mental Health and its Components**

Mental health refers to one's ability to cope with life stressors, productively work and learn, contribute to one's community, and meet one's desired level of well-being. Favorable mental health goes beyond simply not experiencing mental illness or having a mental health disorder. Each person experiences mental health differently, and what causes distress for one person is different for the next. The impacts it has on each person socially and clinically vary as well. Mental health is impacted by one's socioeconomic status, environmental considerations, and genetic factors (WHO, 2024; WHO, 2022).

Mental health is influenced by the risk and protective factors an individual experiences. Individual aspects that impact mental health include biological and

psychological factors, such as genetics, substance use, and emotional skills. External circumstances that impact mental well-being include social, economic, geographic, political, and cultural aspects, including factors such as poverty, violence, social inequality, and environmental injustice (WHO, 2022).

Risk factors can be present during any life stage, but exposure that occurs during childhood tends to have the most negative impact. Risk factors such as harsh parenting, corporal punishment, and bullying may contribute to mental health struggles in childhood or later in the person's life.

Protective factors also occur throughout one's lifetime and result in increased resilience. Protective factors include one's social and emotional skills, positive social interactions, favorable education experiences, opportunities for employment, safe communities, and a positive support system. Society can also play a part in risk and protective factors. Local and global threats increase risks for individuals, families, communities, and whole populations. Such events may include economic downturns, disease outbreaks, humanitarian crises, and even climate change.

While exposure to risk and protective factors contributes to mental health struggles and overall well-being, such exposure does not exclusively determine how one will be impacted. Individuals who have been exposed to numerous risk factors can be mentally healthy, and people with mental health concerns may have no known risk factors. However, risk and protective factors must be considered as they do interact with a person's mental health and may enhance or undermine it (WHO, 2022).

## **Misconceptions and Stigmas Surrounding Mental Health**

Mental health stigma is the negative attitudes, stereotypes, or beliefs a society holds about people who have mental health conditions. This prejudice and

discrimination can lead to numerous negative consequences for those experiencing mental health conditions.

Frequent misconceptions identified by SAMHSA (2023) include:

**Mental health issues won't affect me:** This is unlikely as in 2020,  $\frac{1}{5}$  adults in the United States have experienced a mental health issue in the past year.  $\frac{1}{6}$  youth have experienced a major depressive disorder.  $\frac{1}{20}$  people in the United States have a serious mental illness (SMI) such as major depression, bipolar disorder, or schizophrenia. Suicide is the leading cause of death; in 2020, 45,979 people died by suicide in the United States.

**Children don't have mental health conditions:**  $\frac{1}{2}$  of those experiencing all mental health conditions began showing symptoms before 14 years of age.  $\frac{3}{4}$  of mental health conditions begin before 24 years of age.

**People with mental health disorders are violent:** Only 3%-5% of violence can be linked to people with serious mental illness (SMI). People with SMIs are ten times more likely to be victims of a crime compared to the general population.

**People with mental health conditions just need to try harder:** Individuals with mental health disorders are not lazy or weak; many need medical attention or mental health support just like someone with a physical health disorder. Many things outside of a person's control can impact their mental health condition. These include biological factors (genes, illness, injury, brain chemistry), life experiences (trauma and abuse), and family history of mental health disorders.

**I can't do anything to help a person with a mental health condition:** Only 20% of adults who needed mental health support received it in 2020. Friends and family can be an important support system to individuals and can help them get the services they need (SAMHSA, 2023).

Stigma can show up in different ways, including:



- **Public Perception:** Stigma often perpetuates the misconception that mental health conditions are character flaws or personal weaknesses instead of viewing them as true medical conditions.
- **Labeling:** Those with mental health conditions are unfairly labeled or their identity is based solely on their diagnosis. They are often faced with a lack of understanding by friends, family, and co-workers.
- **Social Isolation:** Stigma can lead to social isolation of the person with a mental health condition. Fear and misunderstanding can contribute to the person being avoided or excluded.
- **Discrimination:** Stigma can lead to discrimination in education, employment, relationships, and housing. Individuals with mental health conditions may also experience bullying, harassment, and physical violence.
- **Self-stigma:** Individuals with mental health conditions may believe the negative stereotypes and beliefs, causing them to be reluctant to seek help and impacting their self-esteem.
- **Barriers to treatment:** Stigma can delay people from seeking treatment, prevent them from seeking help or accepting inadequate care, all of which can worsen the symptoms they are experiencing due to their mental health condition. A frequent barrier to treatment is inadequate health insurance, which does not cover the treatment required for one's mental health needs (NAMI, 2024; Mayo Clinic, 2024).

# The Biopsychosocial Model

The World Health Organization defines health as "the state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (WHO, 2024).

The biopsychosocial model is a way of understanding mental and physical health by assessing biological, psychological, and social environment impacts on the person. This approach acknowledges that the symptoms overlap and interact in their impact on a person's well-being and risks for illness. Understanding this allows for more effective treatment.

In assessing a person's physical and mental health using the biopsychosocial model, consideration is given to physiological factors such as genetics and illness, psychological factors such as thoughts, emotions, behaviors, economic factors, social support, and culture.

Biology includes genetics, physical health, organ functioning, and physical well-being. It impacts mental health in numerous ways. For example, the brain is an organ and can contribute to illness just like any other organ, and physical health conditions can wear on mental health. People can have genetic predispositions for physical disabilities and mental health issues. One example of this is the genetic predisposition for depression. Chronic pain and other physical ailments can lead to depression, and these factors may have a biological link.

Psychological well-being impacts both mental and physical health. Unhealthy and maladaptive thoughts, mood, and behaviors can all be symptoms of mental health conditions, and they often impact overall health. Mental health and behavior can be cyclical (e.g., a person isolates because they are depressed and then experiences more depression symptoms because they are isolated).

Social changes in one environment can impact mental health either positively or negatively. For example, a person with depression who self-isolates but who has social support may experience fewer depression symptoms.

The biopsychosocial model can be viewed as a holistic way to diagnose disorders and provide treatment. For example, addressing an underlying social or environmental stressor can improve mental health, potentially more effectively than psychological or biological treatments. This may also allow for less invasive treatments, and the intervention can be tailored for the specific needs of an individual in a more holistic way.

When applying the biopsychosocial model to mental health care, a provider gathers extensive medical history, family history, genetics, social factors, and psychological information as part of their assessment. This information can then be used to ensure the client's needs are being met and assess if any medical issues may be manifesting with mental health symptoms. The biopsychosocial model encourages providers to see individuals beyond their presenting problems (Marschall, 2023).

## **Completing a Biopsychosocial Assessment**

A biopsychosocial evaluation gauges a person's health and well-being by assessing biological, psychological, and social factors. Information may be gathered from the individuals themselves, their family members, and other providers involved in their healthcare. The purpose is to gather a comprehensive understanding of the person's strengths, challenges, and needs in order to have a customized treatment plan that addresses the person's situation (Social Work Portal, 2023).

Information is gathered on the person's physical health, mental health, and social involvement. The assessments can include physical exams and lab tests performed by a doctor, psychological evaluations performed by a mental health provider, and

interviews with the individual and family members or other support providers. Interview information includes the person's personal history (e.g., education, employment, traumatic experiences, medical history, family history, social network supports, and their view of the presenting problem) (Social Work Portal, 2023).

This comprehensive approach allows the provider to clearly understand the person's needs and develop an effective treatment plan to help the person achieve the desired results. See Appendix A for the Biopsychosocial assessment template.

## Effects of Physical Health on Mental Health

Exercise and nutrition are often considered when addressing ways to improve physical health. However, research shows that both also positively impact a person's mental health.

### Exercise

For some people with mild to moderate depression, exercise is as effective in treating their symptoms as antidepressant medications. High-intensity exercise triggers the release of feel-good endorphins, and regular low-intensity exercise can provide its own type of benefits. Consistent physical activity causes the release of neurotrophic or growth factor proteins. These proteins improve brain function by causing nerve cells to grow and create new connections, making the person feel better. Researchers have found people with depressed moods have a smaller hippocampus, the part of the brain that regulates mood. Exercise helps nerve cell growth in the hippocampus, aiding in relieving depression. It may take a

few weeks of regular activity before the person begins to notice changes (Harvard Medical School, 2021).

Exercise has also been shown to help those struggling with anxiety. Aerobic exercise seems to help the most with managing anxiety (a bike ride, dance class, or brisk walk). Physical activity can help manage anxiety in several different ways. It can act as a distraction from what is causing the anxious mood. Additionally, exercise decreases muscle tension, which can be a contributing factor to one's body feeling anxious. Exercise increases the heart rate, which impacts brain chemistry, increasing anti-anxiety neurochemicals such as serotonin, endocannabinoids, gamma-aminobutyric acid, and brain-derived neurotrophic factor. Exercise activates the brain's frontal regions, and this area helps control the amygdala, the area of the brain where reactions to real or imagined threats to survival take place (Ratey, 2019).

## **Nutrition**

Skipping meals can aggravate both depression and anxiety. While there are no specific foods or diets that can prevent or treat anxiety, depression, or other mental health conditions, some foods can help support mood. Studies have shown that carb cravings that come with a depressed mood may be the body's way of trying to boost serotonin. Eating complex carbohydrates such as fruits, vegetables, whole grains, and legumes may help. Eating foods that contain tryptophan, such as turkey, tuna, and chicken, also helps boost serotonin. Eating protein-rich foods can help boost energy and alertness. Healthy protein sources include legumes, milk, cheese, yogurt, fish, poultry, and soy products (Bruce, 2021).

Nutritional psychiatry is a newer field of study exploring the prevention and treatment of mental health disorders through nutritional interventions. Despite

increasing evidence of beneficial effects, clinical practices rarely provide nutritional recommendations to psychiatric patients (Aucoin et al., 2021).

Adoption of a healthy eating pattern that meets food-based dietary recommendations and nutrient requirements is important to prevent, slow the progression of, or manage depressive symptoms, as well as promote optimal mental health (Kris-Etherton et al., 2021).

Diet is a recognized risk factor for depression, but it is also a modifiable one. In the Supporting the Modification of Lifestyle in Lowered Emotional States (SMILES) study, participants diagnosed with major depressive disorder were assigned to either a social support group or a diet counseling group to assist them in following a modified Mediterranean diet. Those who were assigned to dietetic counseling had a greater reduction in their depressive symptoms over the 12-week period compared with those in the social support group. The modified Mediterranean diet consists of consuming recommended servings of whole grains, vegetables, fruit, legumes, low-fat and unsweetened dairy, raw and unsalted nuts, fish, lean red meats, eggs, chicken, olive oil, and limited intakes of sweets, refined cereals, fried food, fast food, processed meats, and sugary drinks. The Dietary Approaches to Stop Hypertension (DASH) diet, which is high in fruits, vegetables, and low-fat dairy and low in saturated fat, has also been shown to improve depressive symptoms.

When looking at vegetarian and vegan diets, results were mixed. This may be due to a higher risk for suboptimal intake of essential nutrients such as vitamin B12, iron, and n-3 fatty acids, which are required for optimal functioning of the neuroendocrine system. An appropriately planned vegan or vegetarian diet will meet nutrient requirements, but without adequate planning, nutrient deficiencies may manifest. Macronutrients of fat, protein, and carbohydrates do not seem to have a significant effect on depression, but added sugars and refined

carbohydrates did increase depression symptoms, and higher consumption of fiber, fish, and n-3 fats decreased depression symptoms. B vitamins, especially B-12 and folate, when at healthy levels, appear to prevent depressive symptoms. Other vitamin deficiencies that have been linked to increased depression symptoms include vitamin D, magnesium, and zinc (Kris-Etherton et al., 2021).

Among research focused on carbohydrate consumption, a correlation was found between a higher intake of simple or refined carbohydrates, a higher glycemic index diet or sugar intake, and higher levels of anxiety. Artificial sweeteners had similar effects of increasing anxiety as well. There have been some smaller research studies that have found diets high in protein and low in carbohydrates reduced anxiety symptoms. Increased tryptophan also appears to reduce anxiety. Supplementing with omega-3 fatty acids reduced anxiety symptoms after three weeks in one study. The research focused on supplementing vitamins and minerals appears to have mixed results at this time. Overall, the following foods and supplements were found to help reduce anxiety symptoms:

- Fruits and vegetables
- Omega-3 Fatty acids, Omega-9 Fatty acids, Alpha-lipoic acid,
- Seeds and nuts
- Healthy dietary patterns, including the Mediterranean diet, Traditional diet, the Anti-inflammatory diet, Vegan diet, Ketogenic diet
- Caloric Restriction
- Intermittent fasting or other fasting methods
- Eating breakfast
- Consuming a broad spectrum of micronutrients

- Magnesium, Selenium, and Zinc supplements
- Vitamin C, Vitamin E, Choline
- Food sources that contain Bifidobacterium and Lactobacillus
- Herbs such as turmeric, saffron, soy, green tea, herbal tea, quercetin, resveratrol, and other phytochemicals (flavonoids, polyphenols, carotenoids)

The following foods and supplements were found to increase anxiety symptoms:

- High-fat diet, high cholesterol, high trans fat
- Inadequate tryptophan and dietary protein
- High intake of sugar, refined carbohydrates, artificial sweeteners
- Unhealthy dietary patterns, defined as diets high in unhealthy fat and refined sugars
- Snacking (Aucoin et al., 2021)

### ***Avoiding Caffeine and Alcohol***

Caffeine and alcohol can exasperate anxiety and trigger panic attacks. Caffeine in moderation can boost one's mood, but too much can increase already present feelings of anxiety and stress. Most people know the feeling of an energy boost and the jitters that follow after having an energy drink or a shot of espresso. Caffeine increases one's body's alertness and, in doing so, can cause a person already struggling to become even more anxious. Too much caffeine can also impact sleep, and lack of quality sleep is linked to increasing difficulties and symptoms in those struggling with anxiety and depression. Even if the caffeine



does not prevent the person from falling asleep, the sleep quality is going to be poorer with excess caffeine in one's system (NIMH, 2022).

Many people counteract their overconsumption of caffeine by having alcohol in the evening to help decrease the effects of caffeine. Once again, while this may aid in falling asleep, the quality of sleep is going to be poorer. There is also a reciprocal relationship between alcohol and depression. Alcohol frequently results in increased depression symptoms and symptoms of depression can cause people to be more vulnerable to alcohol abuse. Feelings of low self-worth and low confidence can cause people to drink more, which then can make them feel even worse about themselves. It's a vicious cycle: alcohol increases the risk of depression, and depression increases the risk of alcohol use. This was a particular concern during the peak of the Covid pandemic when people were reporting increased depressed mood, they were isolated from friends and family, they lost jobs, there were economic hardships, and many people experienced multiple stressors at once. Liquor stores stayed open through the height of the lockdown, with many seeing record sales, leading experts to voice numerous concerns about the general population's health and well-being (Mock, 2020).

## **The Gut-Brain Connection and its Significance**

The central nervous system (CNS) comprises the brain and spinal cord. It is responsible for receiving, processing, and then making decisions based on the information it receives. The body also has a second brain called the enteric nervous system (ENS) that is found in the gastrointestinal tract. It comprises more than 500 million neurons lining the gut in two thin layers from the esophagus to the rectum. Outside of the CNS, it is the most complex neural network. The main role of the ENS is digestion, from swallowing to releasing enzymes to break down food, controlling the blood flow to absorb nutrients, and ending with eliminating

waste. The ENS is part of the autonomic nervous system, but it also can operate independently. It can receive information on digestive tract conditions, process, and then respond to that information without sending it to the CNS. In this regard, it truly is a second brain (Johns Hopkins, 2024; Cleveland Clinic, 2023).

The vagus nerve is the link between the ENS and the CNS. The vagus nerve starts in the brain and travels down the body, branching out as it goes. It conveys sensory information from the digestive tract's ENS to the brain. It then conveys signals from the brain to the digestive tract. The vagus nerve controls different gut reflexes in response to changing conditions in the gut, such as with the presence of food or chemicals. These vagal reflexes can be intrinsic (they operate within the ENS without the brain's input) or extrinsic (they operate with communication between the ENS and CNS) (Cleveland Clinic, 2023).

The gut microbiome is bacteria that are found in the digestive tract and are also involved with the gut-brain connection. Gut microbes help produce numerous chemical neurotransmitters that carry messages between the gut and the brain. The microbiome also creates chemicals that can affect the brain via the bloodstream, and in return, the brain can affect the microbiome by changing its environment. Research has recently found that the gut microbiome may impact neurological disorders, mental health conditions, and functional digestive issues. Functional digestive disorders are those that have persistent symptoms, but there is no known physical cause (Cleveland Clinic, 2023).

In the past, doctors thought anxiety and depression contributed to irritable bowel syndrome (IBS) and other digestive issues such as diarrhea, constipation, bloating, and stomach upset and pain. Research is now showing that it is really the other way around. Digestive issues are actually sending signals to the CNS that lead to mood changes. There is a higher rate of anxiety and depression among people with IBS and other digestive issues than there is among the general population.

This is important information as 30%-40% of the population will experience IBS or other chronic digestive issues at some point in their lifetime (Johns Hopkins, 2024).

Understanding the connection between the ENS and CNS may help explain why treating IBS and other digestive issues with antidepressants, psychotherapy such as cognitive behavioral therapy (CBT), and medical hypnotherapy are all effective treatments. Antidepressants act on the digestive tract's nerve cells, calming symptoms and possibly improving communication between the ENS and CNS. Therapy that focuses on reducing stress and treating depression and anxiety leads to greater improvements than when symptoms are only treated with conventional medical treatment. CBT helps people change their thoughts, behaviors, and emotional responses around their digestive tract disorder, pain, and their mental and emotional stress and anxiety.

Relaxation therapy helps the person relax and reduce their automatic reactions to stress. These techniques may include progressive muscle relaxation, visualization, and soothing music. Relaxation therapy is particularly effective in combination with CBT. Gut-directed relaxation training focuses on digestive function and pairs relaxation with positive suggestions. For example, the person may be directed to place their hand on their stomach while imagining having control over their digestive function. This treatment is effective for those who have symptoms without identifiable stress. Biofeedback teaches people how to control their automatic responses via an electronic device that gives feedback on the functions being targeted to change. Biofeedback can positively affect those struggling with digestive disorders (Cleveland Clinic, 2023; Harvard, 2023; Johns Hopkins, 2024).

While research is continuing to shed more light on the strengths of these connections between the gut and the brain, historically, we have had sayings that acknowledge this, perhaps without even an awareness of how powerful this

connection actually is. Examples include "gut-wrenching" experiences, situations that make us feel "sick to our stomach" or "feel nauseous," "feeling butterflies in my stomach," "going with your gut," or "trusting your gut" about a decision or situation. The gastrointestinal tract is sensitive to emotions, and anger, sadness, and excitement are just some of the feelings that can trigger symptoms in the gut. The communication between the ENS and CNS goes both directions. Therefore, an upset stomach could be the cause or the result of stress, anxiety, or depression (Harvard, 2023).

Functional gastrointestinal problems are not imagined or all in the person's head. There is a combination of psychological and physical factors that cause digestive symptoms and pain. Psychosocial factors can affect not just the digestive symptoms but the actual physiological function of the digestive tract. For example, psychological factors such as depression can impact the movement and contractions of the digestive tract. There has also been research that shows many individuals who experience functional digestive disorders experience pain more acutely because their CNS is more responsive to the pain signals they are receiving from their digestive tracts. Stress exacerbates this and causes the pain to feel worse (Harvard, 2023).

The gut-brain connection impacts many different areas of functioning, including

- Hunger and fullness
- Food preferences and cravings
- Food sensitivities and allergies
- Gut motility
- Digestion
- Metabolism

- Mood
- Behavior
- Stress levels
- Pain sensitivity
- Cognitive function
- Immunity (Cleveland Clinic, 2023)

The following is a list of disorders that have been linked to gut-brain connection:

- Irritable bowel syndrome and other functional digestive issues (diarrhea and constipation)
- Anxiety and depression disorders
- Non-cardiac chest pain
- Colic in babies
- Indigestion or heartburn (Dyspepsia)
- Difficulty swallowing (Dysphagia)
- Paralysis of the stomach (Gastroparesis)
- Chronic stress
- Chronic fatigue
- Chronic pain
- Gut pain or organ pain (Visceral hypersensitivity)
- Obesity

- Neurodevelopmental disorders (e.g., autism)
- Neurodegenerative disorders (e.g., Parkinson's disease)
- Nerve-related pain disorders (e.g., multiple sclerosis) (Cleveland Clinic, 2023).

Other treatments being researched to treat some disorders that are linked to the gut-brain connection are focused on treating the gut microbiome. Some studies have found that having a healthier and more diverse microbiome can relieve gastrointestinal, inflammatory, stress, and neurological symptoms. Some ways to treat the gut microbiome include probiotics, antibiotics, and fecal microbiota transplants (Cleveland Clinic, 2023).

## **The Role of Pain on Mental Health**

Chronic pain and mental health can contribute to and exacerbate each other. Individuals with chronic pain are at a greater risk for mental health conditions, including anxiety, depression, and substance use disorders (APA, 2020).

Chronic pain impacts sleep and increases stress and depression. It is estimated that 35 to 45% of people with chronic pain also have depression. Pain is also a frequent symptom of people with generalized anxiety disorder. Anxiety, depression, and other mood disorders are common amongst those with chronic pain from fibromyalgia, back problems, migraines, and arthritis. Functional imaging shows that mental health disorders and chronic pain share similar biological mechanisms contributing to their interconnectedness. For example, depression can make a person more sensitive to pain. People who report having arthritis or other chronic pain are more likely to have several mental health conditions, including anxiety, depression, bipolar disorder, and PTSD (APA, 2020).

When chronic pain and mental health disorders occur at the same time, it's important to treat both conditions. Treatments that can help both conditions include psychotherapy and relaxation techniques. Medication, including antidepressants, can also be helpful. In addition, lifestyle changes, such as exercise, nutrition, and sufficient sleep, can help improve mental health symptoms and manage pain (APA, 2020).

A feedback loop exists between pain-regulating areas of the brain and those that control mood, which may be why chronic pain often leads to anxiety and depression. Chronic pain often limits a person's ability to sleep well. A lack of sleep impacts even the healthiest person's mood.

Treating anxiety and depression can help improve pain, but treating pain does not have the same results on improving mood. Both physical and psychological symptoms need to be treated at the same time. Those seeking help often do so for chronic pain, but either do not recognize or don't share their psychological struggles with anxiety or other conditions. It is, therefore, important for doctors and therapists to screen for mental health conditions when individuals present with chronic pain, as they so often are seen simultaneously (Neuroscience News, 2023).

## **The Role of Sleep on Mental Health**

Sleep helps the brain work properly and adequate sleep supports learning, problem-solving, and memory. On the other hand, sleep deficiency causes difficulties in problem-solving and decision-making, impacts control over emotions and behaviors, and may hinder adjustment to change. It has been linked to risk-taking behaviors, depression, and suicide. Lack of sleep decreases a person's productivity at school and work. Even just a few nights of decreased sleep can impact a person's ability to sleep in the same way as it does for an individual who

hasn't slept for 1-2 nights. Studies have shown that sleep deficiency can impact people's ability to drive as much as if they were drunk. Some research has indicated that sleep causes 100,000 car accidents a year and 1,500 deaths (NHLBI, 2022).

Sleep, particularly rapid eye movement (REM), allows the brain to process emotional information. While asleep, the brain evaluates and remembers thoughts and memories and consolidates positive emotional content. A lack of sleep has a negative consequence on mood and emotional reactivity; this has been linked to some mental health disorders and an increase in suicide ideations and behaviors. In the past, sleep difficulties were viewed as a symptom of mental health disorders, but research is increasingly showing that there is a relationship between sleep and mental health disorders and that sleep difficulties can be the cause or the consequence of mental health disorders (Suni, 2023).

Sleep and mental health are connected with a number of mental health and neurodevelopmental disorders, including:

**Depression:** 75% of people who have a depressive disorder report also having insomnia, hypersomnia (sleeping excessively), or significant daytime sleepiness. Previously, it was believed that sleep difficulties were a symptom of depression, but studies are showing that poor sleep may trigger depression. It is challenging to identify the causes and effects. Instead, it is more likely that depression symptoms and sleep difficulties are mutually reinforcing (Suni, 2022).

**Seasonal Affective Disorder:** Seasonal affective disorder is a type of depression that is most often experienced by people who live in northern climates that have reduced daylight hours during the fall and winter seasons. SAD is a disruption in the person's circadian rhythm, which controls sleep and other body processes. People with seasonal affective disorder experience changes in their sleep cycles, often sleeping too much or too little (Suni, 2022).



**Anxiety Disorders:** Anxiety disorders include generalized anxiety disorder, social anxiety disorder, panic disorder, obsessive-compulsive disorder, post-traumatic stress disorder, and specific phobias. Many anxiety disorders have a strong correlation with sleep problems. Persistent worry and fear may lead to a state of hyperarousal, where the mind is racing, which often leads to insomnia. Furthermore, people may have increased anxiety about their insomnia, making it even harder to fall asleep. There's also a very strong connection between PTSD and sleep. Those with PTSD often replay negative events, have nightmares, and are in a state of high alert, all of which impact their ability to sleep. Many veterans experience PTSD, and it is estimated that 90% of those veterans with PTSD have insomnia symptoms. Once again, we can see a cause-and-consequence connection between sleep and anxiety. Difficulty sleeping can activate anxiety, and people with anxiety have higher rates of insomnia (Suni, 2022).

**Bipolar Disorder:** Bipolar disorder involves the high moods of mania and low moods of depression. Bipolar symptoms can cause impairments in everyday life, including sleep. People with bipolar disorder often experience changes in sleep patterns dependent on their mood episodes. During manic episodes, most feel the need for less sleep, and during depressive episodes, most feel the need for significant amounts of sleep. Many also face other sleep disruptions, even when they are not experiencing the extremes of a manic or depression episode. Studies have found that many people with bipolar disorder have changes in their sleep patterns before their first bipolar episode. Sleeping problems can also induce or significantly worsen manic or depressive episodes. Since there is such a strong link between bipolar disorder and sleep, treating insomnia can help reduce the impact of bipolar disorder (Suni, 2022).

**Schizophrenia:** Schizophrenia is a disorder that makes it difficult to differentiate between what is and isn't real. Those with schizophrenia often experience insomnia and circadian rhythm disorders. Medications that treat schizophrenia

can exacerbate sleep problems. Poor sleep and schizophrenia symptoms are mutually reinforcing; therefore, stabilizing sleep patterns can help reduce schizophrenia symptoms (Suni, 2022).

**Attention Deficit Hyperactivity Disorder (ADHD):** ADHD is a neural developmental disorder that reduces attention span and increases impulsivity. Sleeping problems are common among those with ADHD. They may have difficulty falling asleep, wake up frequently, and experience excessive daytime sleepiness. Other sleep disorders, such as sleep apnoea and restless leg syndrome, have a higher rate amongst those with ADHD when compared to the general population. Again, there's a bidirectional relationship between sleep and ADHD; while sleep problems are a consequence of ADHD, a lack of sleep can aggravate symptoms such as poor attention span and impulsive behaviors (Suni, 2022).

**Autism Spectrum Disorder:** Autism spectrum disorder is a neurodevelopmental condition that affects communication and social interactions. Those with autism spectrum disorder have a higher rate of sleep problems, including insomnia and sleep-disordered breathing. A lack of sleep can worsen the symptoms of autism spectrum disorder and reduce the person's quality of life. Addressing sleep disturbance can decrease daytime sleepiness and behavioral problems in people with autism spectrum disorder (Suni, 2022).

Mental health conditions can impact a person's sleep, and a lack of sleep can impact a person's mental health. The connected relationship between sleep and psychiatric disorders highlights the importance of treating both issues together in that improved sleep may prevent some of the mental health symptoms or difficulties (Suni, 2022).

In conclusion, Improving sleep quality improves overall mental health. Research supports that improved sleep reduces depression and anxiety levels. Those struggling with insomnia report higher levels of depression and anxiety. Targeting

sleep hygiene treatments may be helpful in reducing the severity of anxiety and depression symptoms. Cognitive behavioral therapy for insomnia (CBTi) is an evidence-based treatment with positive results in improving sleep (Scott et al., 2021)

## Effects of Mental Health on Physical Health

### Stress and its Impact on Physical Health

It is important to differentiate between acute stress and chronic stress. While one is a normal part of living and occurs in response to a challenging or dangerous situation, the other is long-term. Our bodies were not built to function with chronic stress and it can cause significant health risks.

Acute stress is a physiological and psychological reaction to a specific event; it is momentarily experienced and short-term. Examples include slamming on the brakes to avoid an accident or racing to meet a connecting flight.

Chronic stress is experienced over an extended period of time and causes a sense of pressure and overwhelm. Individuals experiencing this type of stress often believe they have no control over it, and it can lead to significant problems for both physical and mental health. Examples include poverty, dysfunctional family, abusive relationships, toxic work environment, or caring for a chronically ill family member.

When one perceives a threat, the natural stress response causes the hypothalamus to set off an alarm in the body, and nerves and hormones then signal the adrenal glands to release a flood of hormones, such as adrenaline and cortisol. Adrenaline causes the heart to beat faster, blood pressure to increase, and energy to spike. Cortisol increases glucose in the bloodstream, improves the

brain's use of glucose, and increases the body's tissue repair substances. Cortisol also slows down any function it deems nonessential in a fight or flight situation. It changes how the immune system responds and shuts down the digestive, reproductive, and growth processes (Mayo Clinic, 2023).

Once a perceived threat is over, hormones return to normal levels, adrenaline and cortisol levels drop, heart rate and blood pressure return to baseline, and other systems resume normal functions. When stress is chronic, the fight or flight reaction remains, leaving the person feeling constantly under attack. When the stress response system is activated for extended periods of time, it disrupts all of the body system processes and can lead to the person being at risk for numerous health problems, including

- Anxiety
- Depression
- Digestive problems
- Headaches
- Muscle tension and pain
- High blood pressure, heart disease, heart attack, stroke
- Sleep problems
- Weight gain
- Problems with memory and focus (Mayo Clinic, 2023)

Each person's response to stress is individualized. It is impacted by genetics and life experiences. Most people's genes that control the stress response stay at a steady emotional level, only kicking into fight or flight mode when necessary. Some people have slightly stronger or less active stress responses due to genetics.

Life experiences such as traumatic events can lead people to have stronger stress reactions. People who have experienced adverse childhood experiences such as child abuse or neglect are at higher risk for experiencing increased stress responses. This is also true for people who have experienced violent crimes, survived a disaster, or people in the military, police force, and firefighters (Mayo Clinic, 2023).

## **Impact of Stress and Chronic Stress on the Body's Systems**

Stress impacts all body systems in multiple different ways, as discussed below.

**Musculoskeletal system:** When a body experiences stress, muscles tense. Muscle tension is the body's way of protecting against injury and pain. With acute stress, muscles tense and then release as the stressor passes. Chronic stress leads to the muscles being in an almost constant state of tension. When muscles are tense for extended periods of time, it can cause other body reactions and stress-related disorders. For example, chronic muscle tension in the shoulders, neck, and head can cause headaches and migraines. Relaxation techniques and stress-reducing activities are effective at reducing muscle tension headaches due to stress and improving overall well-being (APA, 2023).

**Respiratory system:** Stress and extreme emotions can cause respiratory symptoms such as rapid breathing and shortness of breath due to the constriction of the airway between the nose and the lungs. Stressors can exacerbate breathing problems, especially for those with respiratory diseases such as asthma, COPD, or emphysema. Some research has shown that acute stress can lead to asthma attacks. Relaxation and breathing techniques, as well as cognitive behavioral strategies, can support the respiratory system at times of stress (APA, 2023).

**Cardiovascular system:** The cardiovascular system plays a key part in the body's response to stress. Acute stress causes an increase in heart rate and causes the

heart muscle to become constricting and stronger, pushing the stress, hormones, adrenaline, and cortisol throughout the body. Blood vessels dilate, sending increased amounts of blood to large muscles and the heart and increasing blood pressure. This is the fight-or-flight response. Once the stressor has passed, the body returns to normal. On the other hand, chronic stress can lead to long-term problems for the heart and blood vessels. The constant increased heart rate, elevated levels of stress hormones, and increased blood pressure take a toll on the body; the long-term consequences of this stress can lead to hypertension, heart attack, and stroke. Frequent acute stress and chronic stress can also lead to inflammation in the circulatory system, especially in the coronary arteries, which is linked to heart attacks. How a person responds to stress can also impact cholesterol levels. Research has shown a difference in the risk of heart disease for women, depending on whether they are premenopausal or postmenopausal. Premenopausal women have higher levels of estrogen, which research has shown helps. Blood vessels respond better to stress and offer some protection against heart disease. Postmenopausal women have lower levels of estrogen, leaving a greater risk for heart disease due to stress (APA, 2023).

**Endocrine system:** The endocrine stress response involves the hypothalamic-pituitary-adrenal (HPA) axis. When a stressor is experienced, the hypothalamus triggers the pituitary gland to produce a hormone, which then triggers the adrenal glands to produce more cortisol. Cortisol increases the energy available to the body from the liver by deploying glucose and fatty acids. Normal cortisol levels fluctuate throughout the day, typically having a high concentration in the morning when waking up and declining as the day progresses. Glucocorticoids are steroid hormones including cortisol; they play an important role in reducing inflammation and regulating the immune system. This is necessary during times of acute stress as the body is prepared for a possible injury, and the immune system is ready to react. However, chronic stress can cause communication problems between the

HPA axis and the immune system. This compromised communication has been linked to the development of metabolic disorders, immune disorders, chronic fatigue, and depression (APA, 2023).

**Gastrointestinal system:** Stress can impact gut-brain communication, leading to pain, bloating, digestive issues, and changes in gut bacteria, all of which can lead to variances in mood and emotions. When experiencing stress, many people overeat or under-eat, and they may increase their use of alcohol, tobacco, or other drugs. All of these behaviors can increase heartburn and acid reflux. Stress can make it difficult to swallow or increase air intake when swallowing, which causes increased internal gas. Stress can cause pain, bloating, nausea, and, if severe enough, even vomiting. Moving further down the GI system, stress can result in diarrhea or constipation. It can also cause painful bowel spasms. If food moves quickly through the digestive system, it will reduce the amount of nutrients absorbed (APA, 2023).

**Nervous system:** The nervous system is made up of the brain and spinal cord, which comprise the central nervous system (CNS) and the autonomic nervous system. The autonomic nervous system consists of the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS). When experiencing a stressor, the fight or flight response is triggered by the SNS. The SNS alerts the adrenal glands to release epinephrine and cortisol. These hormones will result in the heart beating faster, respiration increasing, blood vessels dilating, glucose levels increasing, and digestion pausing. The SNS response happens quickly so the body is ready for the emergency; once the emergency passes, the body systems return to normal. The PNS supports the body in returning to its normal functioning. In situations of chronic stress, the constant activation of the nervous system takes a toll on other body systems (APA, 2023).

**Reproductive system:**

**Male:** Chronic stress impacts testosterone production; the result is decreased libido or sex drive, erectile dysfunction, and impotence. Chronic stress also reduces sperm production and maturation, resulting in difficulties in conception. Men who have had two or more stressful life events over the past twelve months have lower sperm motility and a decrease in normal sperm morphology when compared to men who did not experience any stressful life events during the same time period. Stress can impact the immune system, causing the body to be more susceptible to infections. In men, this can increase their risk of infections to the testes, prostate, and urethra.

**Female:** High-stress levels are linked to irregular or absent menstrual cycles, increased pain during menstruation, and changes in the duration of cycles. Stress can worsen premenstrual symptoms or make them more difficult to cope with. These symptoms include cramping, bloating, fluid retention, mood swings, and feeling down or irritable. The stress and fatigue of balancing life demands can lower sexual desire. This is most prominent among women who are caring for small children or ill family members, dealing with their own chronic medical problems, or struggling with relationship difficulties. Stress can create difficulties for a woman to conceive and may negatively impact her health during pregnancy and in the postpartum period. High levels of stress during pregnancy increase the likelihood of developing anxiety and depression. Maternal stress can also impact fetal and childhood development and increase the likelihood of experiencing postpartum depression, which decreases the bonding with the baby post-delivery. As a woman reaches menopause, hormones can fluctuate rapidly and can lead to anxiety, mood swings, and general feelings of distress. Menopause can be a stressor, and if a woman is already under considerable stress, it can cause menopause symptoms to worsen. For example, the number and intensity of hot flashes may increase. Reproductive system diseases are more likely to be



exacerbated at times of stress. As such, stress can cause a flare-up of herpes simplex virus or polycystic ovarian syndrome symptoms (APA, 2023).

## **Role of Emotional Well-Being on Immune Function**

We have already seen how stress can take a toll on one's body and immune function. Research has found that negative moods can impact one's level of inflammation in the body and immune functioning. One study asked people to state their mood, positive or negative, prior to taking blood samples to look for inflammation. Those who reported negative mood, such as sadness or anger, had higher biomarkers for inflammation, while those who reported positive mood had lower levels of inflammation biomarkers in their blood work (Cohut, 2019).

Yoga has been well-documented to improve physical and mental well-being. One study found that yoga was effective in treating chronic stress diseases by reversing inflammatory biomarkers and maintaining homeostasis and the physiological functioning of other body systems that support immune functioning. Other systems yoga has shown to have a direct impact on include the autonomic, endocrine, and HPA axis, and it supports psychological aspects that are agitated under stressful conditions (Venkatesh et al., 2020).

Finding ways to reduce stress and improve mood not only improves one's emotional well-being but immune functioning as well.

# The Impact of Holistic Health on Physical and Mental Well-Being

## Mindfulness, Meditation, and Relaxation Techniques

Complementary and integrative-based therapies include mindfulness activities such as yoga, meditation, tai chi, and qi gong. These interventions are best used as adjunctive therapies along with medications and/or psychotherapy.

Yoga is an ancient Eastern practice that incorporates physical postures, breath control, and meditation. There are several different styles of yoga that differ in intensity, duration, and emphasis on each component. One study found yoga to be just as effective in treating depression as other exercise routines and medications. Hatha yoga was found to be most effective with anxiety disorders and particularly with panic disorders. Symptom reduction was seen for those with depression and anxiety with just one 60-minute session per week. Optimal amounts and duration varied per person.

Tai chi and qi gong are mind and body practices that incorporate postures and gentle movements with mental focus, breathing, and relaxation. The movements can be done while walking, standing, or sitting. While studies have shown these two modalities to be effective in reducing symptoms in those with depression, the results varied greatly. There were better and more consistent results with those who had anxiety symptoms and participated in tai chi or qi gong, but once again, results varied greatly by study.

Meditation involves calming the mind with the goal of achieving a state of detached observation. There are many different meditation approaches. The ones that seem to have the most impact on people with depression and anxiety disorders include mindfulness-based interventions and training, mindfulness-

based stress reduction, and mindfulness-based cognitive therapy. Each of these approaches differs in minor ways, but they all have the focus of calming the mind as their core modality. Mindfulness-based interventions showed significant improvements in those with depression. In some studies, the results were as positive as evidence-based treatments, including SSRIs. It was less effective with those with anxiety but still showed moderate improvements. Mindfulness-based training was shown to be as effective as cognitive behavioral therapy, other behavioral therapies, and medications for both depression and anxiety (Saeed et al., 2019)

Mindfulness is non-judgemental attention to present-moment experiences. One practices mindfulness by consciously focusing attention on a specific object, such as one's breath, emotions, thoughts, sounds, or body. One can also focus attention on being open and non-judgemental about fleeting emotions, thoughts, and physical body sensations. The opposite of mindfulness is forgetfulness, wandering attention, or autopilot. When one is on autopilot, a stimulus will cause an emotional reaction. When one is mindful, a stimulus will cause mindfulness, and then a response can be chosen. There is an ever-increasing amount of research supporting the benefits of meditation and other mindfulness-based therapies. Extensive clinical research has shown mindfulness can help people struggling with anxiety, depression, chronic pain, substance abuse, and other conditions. Benefits include:

- Reducing stress
- Reducing rumination
- Decreasing negative affect (e.g., depression, anxiety)
- Lowering emotional reactivity/more effective emotion regulation
- Increasing focus

- Improving cognitive flexibility
- Improving working memory (Farrell & Ainger, 2020).

Mindfulness may be used with physical movements such as yoga, tai chi, running, hiking, rock climbing, gardening, or progressive muscle relaxation. On almost the complete opposite end of traditional mindfulness is sensory deprivation, such as float therapy. This can help facilitate focus and mindfulness as the mind and body are deprived of all external sensory inputs while the person floats in a pod or room. One can also use sensory stimulation as part of mindfulness; this could include focusing on scent with aromatherapy, focusing on the sense of hearing through listening to music, or the sense of taste by putting complete focus and attention on eating one thing, slowly and mindfully. Meditation may be what most people think of when they think of mindfulness. Meditation can go beyond sitting and meditation on one's breath; it can also be coloring, completing a workbook, journaling, nature therapy, or even using technology with apps such as Calm and Headspace (Farrell & Ainger, 2020).

## **Social Connections and Support**

### **Social Isolation and Loneliness**

Social isolation occurs when there is minimal to no social support or contact and a lack of relationships with others. Even if the person who is socially isolated does not feel lonely, there are risk factors. One in four adults over the age of 65 is socially isolated (CDC, 2023).

Loneliness occurs when being disconnected from others and feeling alone. Lonely individuals do not believe they have close or meaningful relationships or a sense of belonging. A person can have a lot of friends and still feel lonely, as loneliness is

measured by the person's desired level of connection versus their actual level of connection. One in three adults over the age of 45 in the United States report feeling lonely (CDC, 2023).

Those who are most at risk of experiencing loneliness and social isolation are those who:

- Have an income under \$50,000/year
- Have a psychiatric or depressive disorder
- Are from a marginalized or discriminated against group
- Experience challenges accessing resources (e.g., language barriers, rural community, lack of transportation).
- Have a chronic disease or health condition or long-term disability
- Are a victim of violence or abuse
- Are unmarried, unpartnered, or live alone
- Identify as LGBTQ
- Are experiencing a major life transition (e.g., divorce, job loss, death of loved one) (CDC, 2023).

Social isolation and loneliness increase one's risk for high blood pressure, heart disease, stroke, type 2 diabetes, obesity, depression, anxiety, addiction, self-harm, suicide, cognitive decline, dementia, weakened immune function, and premature death. It is estimated to cost the economy \$406 billion a year in the United States. Further increasing one's risk, those who are lonely or socially isolated are more likely to not exercise, drink too much alcohol, smoke, and have difficulties sleeping (CDC, 2023; NIA, 2021).

Loneliness can cause people to experience emotional pain, feel threatened, and be mistrustful of others. Emotional pain can have the same stress response as physical pain in the body. Over a period of time, this can cause chronic inflammation, reduced immunity, and increased risk for chronic diseases. The impact loneliness and social isolation have on brain health include a decline in cognitive function, increased risk for dementia, and even a decline in the ability to complete activities of daily living such as taking medication, paying the bills, cooking, and driving (NIA, 2021).

## **Strategies for Building and Maintaining Meaningful Social Connections**

People who participate with others in meaningful and productive activities they enjoy have a sense of purpose and live longer. Further, individuals who volunteer feel less lonely, have a sense of purpose and have improved mood, well-being, health, and cognitive function. Staying connected improves many areas of a person's life. Some ways a person can build or maintain meaningful social connections include:

- Find an enjoyable activity to participate in. This could be returning to an old hobby or taking a class to learn a new skill. This opens up the possibility of meeting new people with shared interests.
- Schedule time daily and weekly to stay in touch with friends and family. This could be in-person, via email, a phone call or text, on social media, or by a handwritten letter or card. Maintaining communication and connection with those one trusts and can have meaningful conversations with is important.
- Take a class to learn technology skills so that such skills can be used to one's advantage. This may include learning how to use social media, video chat,

or smart speakers, all of which can help a person stay engaged and connected with others.

- Participate in faith-based organizations to stay connected to spiritual beliefs and be involved with activities and events.
- Participate in programs at community agencies, senior centers, nature centers, or public libraries. Many of these community-based locations offer free activities and workshops.
- Being more active has been linked to increased social connections. Joining a sports team or a community recreation center or gym can increase socialization as will taking an exercise class or joining a walking group. All of these activities will increase one's physical activity and also help with meeting new people.
- Give to others - this could be giving a ride to a neighbor or volunteering at an animal shelter or soup kitchen. Giving to others feels good and deepens social connections (NIA, 2021).

## Lifestyle Changes for Optimal Well-Being

### Holistic Approaches to Managing Stress and Preventing Burnout

Stress is caused by external factors that cause the nervous system to be overwhelmed. Stress is usually short-term, and once the stressor is removed, the symptoms subside. Stress can be experienced physically with symptoms such as muscle tension, jaw clenching, headache, fatigue, restlessness, and body aches. It can be experienced emotionally, including symptoms of feeling overwhelmed or emotionally reactive, as well as experiencing forgetfulness, racing thoughts, and difficulties in problem-solving. Stress can also be experienced behaviorally with

instances of reduced sleep, lowered quality of sleep, changes in appetite, weight gain or loss, substance use, and difficulties sexually. Individuals may feel increased stress due to financial hardships, relationships or work struggles, health difficulties, and spiritual challenges (Phillips, 2022).

Stress weakens the immune system and makes one susceptible to illness, from minor illnesses such as a cold to serious illnesses such as heart disease. Research shows that chronic stress can double a person's risk of having a heart attack (MHA, 2024).

Burnout, on the other hand, is more severe, and removing the situation causing the burnout will not necessarily improve the situation as it generally does with stress. Burnout takes time to recover from as circumstances improve. Burnout occurs from living with chronic stress that does not abate; the body can only sustain being in fight or flight mode for so long before it works toward self-protection, which is what burnout is. The signs of burnout are similar to those of stress but on a more intense and deeper level. The symptoms may then escalate to disengagement and depersonalization (Phillips, 2022).

Burnout is a cumulative process marked by physical and emotional exhaustion, disconnection from others, withdrawal associated with increased workload and institutional stress, work-related hopelessness, and feelings of inefficacy. Burnout is NOT caused by trauma. Once one is in the full throes of burnout, one needs to get out of the situation in order to recover.

Preventing and ending burnout may include such interventions as setting and maintaining boundaries in relationships or leaving a toxic work environment. While stress can not be completely eliminated from one's life, some steps to manage stress and prevent burnout include:

- Increase awareness of personal limits



- Increase awareness of how much of one's energy is devoted to others versus oneself
- Establish boundaries with others, including work
- Participate in creative activities
- Make time for fun
- Improve awareness of mind-body connection
- Build a healthy support system
- Improve sleep routine
- Prioritize exercise
- Eat a healthy diet
- Participate in activities that improve nervous system regulation; this includes such things as spending time in nature, breathwork, and spending time with pets (Phillips, 2022; Smith et al., 2024).

Self-care is so important to the practice of social work and in all behavioral health professions, as, without it, one is more susceptible to burnout, compassion fatigue, and vicarious trauma. This can lead to practitioners leaving the profession or continuing their work but placing their clients at risk for harm. Self-care should include activities and practices that one can engage in regularly to reduce stress and improve one's health and well-being.

### ***Managing and Reducing Stress***

**Physical Health:** Eating regularly and making healthy nutritional choices, getting enough sleep, exercising or participating in other fun physical activities, massage,

healthy sexual activity, addressing medical needs and keeping regular preventive appointments, wearing clothes that make you feel good, and taking vacations.

**Psychological Health:** Schedule time for self-reflection, take days off and vacations, journal, have screen-free hours or day(s) (no email, internet, phone), participative in counseling, pay attention to thoughts, feelings, attitudes, and beliefs, enjoy non-work-related reading, learn something new, say no to new responsibilities.

**Emotional Health:** Spend time with people you enjoy, keep in contact or re-connect with people who are important to you, practice self-affirmations and positive self-talk, participate in comforting activities (re-read a favorite book, re-watch a favorite movie or show, make a favorite childhood recipe), allow yourself to cry, find things that make you laugh.

**Spiritual Health:** Find a spiritual connection or community, take time for reflection, spend time in nature, pray, meditate, sing, experience moments of awe, identify important non-material aspects of life, make financial or time contributions to causes you believe in, read or listen to inspirational material, find what is meaningful to you.

**Maintaining Relationships:** Schedule regular dates with your partner, schedule regular activities with your children, spend time with friends, check in on relatives, spend time with pets, accept help from others and ask for help when you need it, meet new people, be vulnerable with those you trust.

**Professional Health:** Take a break during the workday, take lunch, take time to talk to coworkers, set limits with clients and coworkers, have a comfortable workspace, balance caseload schedule, participate in regular supervision or peer support, participate in projects that are exciting, negotiate for professional needs to be met (pay, benefits, support) (University of Buffalo, 2024).

## Balancing Work

Many people feel the pressure of trying to balance work, family, relationships, and extracurricular activities. This pressure often leads to stress levels increasing and productivity at home and work decreasing. Stress lowers concentration abilities, causes people to be irritable and depressed, and can lead to interpersonal conflicts at work and at home. Managing stress enables people to achieve a healthy work-life balance. When employees feel there is a work-life balance they are more productive, take fewer sick days, and are more likely to stay in their work role (MHA, 2024).

The following are ways one can reduce stress and find more balance at work.

**Set realistic daily goals:** The more control one has over one's work, the less stressed one feels. Setting realistic work goals and accomplishing them increases one's sense of control.

**Efficient time management:** Procrastination leads to tasks feeling insurmountable. Big projects can be broken down into smaller tasks with small rewards at the completion of each smaller milestone. By decreasing procrastination and busy work, more time can be spent productively or with loved ones.

**Seek flexibility:** Many companies allow flexible work hours, working from home, and other telecommuting options. Research shows that companies with flexible scheduling have employees who are more productive and loyal to the company.

**Take a break:** Small breaks allow one to clear one's head, improve one's ability to manage stress and increase good decision-making.

**Listen to music:** Listening to music improves concentration, increases productivity, reduces stress and anxiety, and promotes creativity. Research even shows it can lower blood pressure.

**Effective communication:** When things are feeling overwhelming, be honest with colleagues and supervisors, suggest practical solutions, and don't just vent. Taking the time to see a situation from someone else's viewpoint can help reduce stress. In high-tension situations, talk through the issues calmly and rationally, taking the time to see different viewpoints and being open to compromises. If things become heated, take the time to calm down and regroup (MHA, 2024).

The following are ways one can reduce stress and find more balance at home:

**Unplug:** Set limits around work hours, when to be available for work, and when technology can be set aside to focus on family and friends and not work. This can be particularly challenging for those who work flexible hours or work from home.

**Share responsibilities:** Clear communication can help set up how household responsibilities are going to be fairly divided among household members.

**Don't overschedule:** Set a realistic number of commitments and if one's calendar is feeling overwhelming learn to say no more often.

**Seek support:** Leaning into one's support system at times of stress can help reduce stress and improve health. Research shows that those with positive support systems have better immune responses when faced with sickness than those who don't have a strong support network.

**Use the Employee Assistance Program (EAP):** Many companies have EAP resources, which provide support in finding services such as daycare for a child or elder care for a parent as well as mental health services.

**Movement:** Regular exercise not only supports one's physical health but also reduces stress, anxiety, and depression, improves one's immune system, and helps people cope better with adversity.

**Self-care:** In addition to movement, supporting one's physical health through proper nutrition and hydration, good sleep, and not relying on alcohol, tobacco, or drugs all help manage stress in positive ways.

**Ask for help:** Don't be afraid to ask for help. Taking care of yourself is a sign of strength, not a weakness. It will help improve one's health and happiness (MHA, 2024).

## Self-Care

Self-care includes activities done deliberately to care for one's mental, emotional, and physical health. Self-care should fuel and energize people, not deplete them. Self-care supports improved mood, reduced anxiety, and improved relationships with oneself and others. Self-care is not selfish; by taking care of oneself, one is more readily available to care for others (Farrell & Ainger, 2020).

Self-care can be divided into eight areas:

1. **Physical Self-Care:** Involves exercise, nutrition, sleep, and sexual needs. Examples include going for a walk, taking a bath, eating healthy meals, and sleeping 7-9 hours a night.
2. **Psychological Self-Care:** Involves lifelong learning, applying consequential thinking, building intrinsic motivation, practicing mindfulness and creativity. Examples include using mindfulness techniques, learning a new skill, journaling, reading, teaching others a new skill, and completing a digital detox.
3. **Emotional Self-Care:** Growing your emotional intelligence, learning how to navigate emotions, increasing empathy, managing stress, and having compassion for yourself and others enhance emotional self-care. Examples

include gratitude journaling, saying no, reflecting on feelings, practicing self-compassion, and being aware of your boundaries.

4. **Social Self-Care:** This includes having healthy relationships and a positive support network that you trust and can rely on for support when needed. Having a strong support system creates a sense of belonging and connectedness. Examples include belonging to a community group, keeping the commitments you make to others, maintaining friendships and connections with family members through spending quality time together, and asking for help when you need it.
5. **Professional Self-Care:** Living your purpose, sharing your strengths and gifts, and maintaining clear professional boundaries are paramount. Examples include knowing your role and work responsibilities, negotiating your needs, having clear professional boundaries, and attending continuing education or professional development.
6. **Environmental Self-Care:** Having an organized work and home environment and ensuring your environment meets your needs enhances self-care. Examples include maintaining a clean and safe living space, decluttering work or home space as needed, recycling, and managing the amount of time spent on technology.
7. **Spiritual Self-Care:** This includes knowing what beliefs and values are important to you and pursuing practices that support and grow your spiritual beliefs. Examples include meditation, journaling, volunteering, taking a walk in nature, and participating in religious events or ceremonies.
8. **Financial Self-Care:** Having a conscious relationship with money and being responsible for your finances contributes to effective self-care. Examples include knowing your income and expenses, paying bills on time, staying up

to date on insurance and taxes, and responsibly spending and saving money (Taylor, 2023).

## **Setting Realistic Goals for Physical & Mental Health**

Setting realistic goals for health can include assessing if the goal is really going to improve your mental or physical health and if it is something you can possibly achieve. Make sure it is not too broad, specific, or too ambitious. If a goal is unrealistic, it is unlikely to be achieved, leaving you feeling more discouraged. Setting realistic goals sets you up for success and the greatest possibility of achieving the goal.

Developing a routine of when and how you will work on your goal is another way to help ensure that achieving the goal is realistic. Knowing when and how you will set aside time to work on your goal is important, as it is more likely to happen if it's scheduled.

Using mindfulness to visualize your goal and being mindfully present when you are working on the goal can help support the success of meeting your goal. Additionally, prioritizing self-care benefits you by renewing your energy. With more energy, you're more likely to stick to the routine and plan for your goal.

Practicing positive self-talk and self-compassion daily can be a challenge, but positive affirmations will help you follow through with your goal. It is important to have self-compassion as no one is perfect, and life sometimes gets in the way. Also, there will be days when you fall short of your goals; having self-compassion is important so you don't give up and can try again the next day.

Focus on a healthy lifestyle, which includes a healthy diet, regular exercise, adequate sleep, and limiting alcohol intake, all of which help support your physical and mental health and the success of the goal.

Social media can have a negative effect on our thoughts and emotions. Taking a break or limiting how much you're on social media may help reduce the stress, anxiety, and frustration many people feel from social media. It may even free up time to work on your goal instead of doom-scrolling.

Having a supportive social network of people you trust can help support you as you work toward your goal.

Work with a professional. Depending on your goal, this may be a coach, a mentor, a personal trainer, a therapist, or an expert in the field of your goal who can support you in reaching your goal while holding you accountable in completing the smaller steps to reach your final big goal (Hopewoods, 2024).

## Conclusion

Physical and mental health significantly impact each other. Not only do they have a biological connection, but both are influenced by lifestyle factors and affect resilience, coping, immunity, and general well-being. Understanding how biological, psychological, and social factors interplay and the specific implications of mental and physical health on one another can help practitioners clearly identify the person's needs, develop effective interventions, and support the person to achieve the results they desire. Taking steps to reduce stress and improve lifestyle choices such as adequate sleep, exercise, and proper nutrition all support a person's physical and mental health.

## Reference

APA (2020). Chronic Pain and Mental Health Often Interconnected. American Psychiatric Association. Retrieved January 2024. <https://>



www.psychiatry.org/news-room/apa-blogs/chronic-pain-and-mental-health-interconnected

APA (2023). Stress effects on the body. American Psychological Association. Retrieved January 2024. <https://www.apa.org/topics/stress/body>

Aucoin, M., LaChance, L., Naidoo, U., Remy, D., Shekdar, T., Sayar, N., Cardozo, V., Rawana, T., Chan, I., Cooley, K. (2021). Diet and Anxiety: A Scoping Review. *Nutrients*. 13(12):4418. doi: 10.3390/nu13124418

Bruce, D.F. (2021). Depression and Diet. WebMD. Retrieved January, 2024. <https://www.webmd.com/depression/guide/diet-recovery>

CDC (2023). Health Risks of Social Isolation and Loneliness. Centers for Disease Control and Prevention. Retrieved January 2024. <https://www.cdc.gov/emotional-wellbeing/social-connectedness/loneliness.htm>

Cleveland Clinic (2023). The Gut-Brain Connection. Cleveland Clinic. Retrieved January 2024. <https://my.clevelandclinic.org/health/body/the-gut-brain-connection>

Cohut, M. (2019). How our emotions affect our immune response? Medical News Today. Retrieved January 2024. <https://www.medicalnewstoday.com/articles/324090#Negative-moods-and-inflammation>

Farrell, A., Ainger, T.J. (2020). Self-care: Evidence-based strategies to cope with stress and trauma, especially in a global pandemic. Retrieved January 2024. <https://www.thename.org/assets/docs/MEC%20Self-Care%204-29-2020%20%281%29.pdf>

Harvard (2023). The gut-brain connection. Harvard Health Publishing: Harvard Medical School. Retrieved January 2024. <https://www.health.harvard.edu/diseases-and-conditions/the-gut-brain-connection>

Harvard Medical School (2021). Exercise is an all-natural treatment to fight depression. Retrieved January 2024. <https://www.health.harvard.edu/mind-and-mood/exercise-is-an-all-natural-treatment-to-fight-depression>

Hopewoods (2024). Realistic Mental Health Goals to Make for 2024. Retrieved January 2024. <https://hopewoods.ca/realistic-mental-health-goals-to-make-for-2024/>

Johns Hopkins (2024). The Brain-Gut Connection. Johns Hopkins Medicine. Retrieved January 2024. <https://www.hopkinsmedicine.org/health/wellness-and-prevention/the-brain-gut-connection>

Kris-Etherton, P.M., Petersen, K.S., Hibbeln, J.R., Hurley, D., Kolick, V., Peoples, S., Rodriguez, N., Woodward-Lopez, G. (2021). Nutrition and behavioral health disorders: depression and anxiety. Nutrition Reviews 79(3):247-260. doi: 10.1093/nutrit/nuaa025.

Marschall, A. (2023). Understanding the Biopsychosocial Model of Health and Wellness. Retrieved January 2024. <https://www.verywellmind.com/understanding-the-biopsychosocial-model-7549226>

Marshall-Seslar, A. (2022). Body Health Basics: What is Physical Health. McMillen Health. Retrieved January 2024. <https://www.mcmillenhealth.org/tamtalks/physical-health>

Mayo Clinic (2023). Stress Management. Mayo Clinic. Retrieved January 2024. <https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress/art-20046037#:~:text=Heart%20disease%2C%20heart%20attack%2C%20high,Problems%20with%20memory%20and%20focus.>

- Mayo Clinic (2024). Mental health: Overcoming the stigma of mental illness. Retrieved January 2024. <https://www.mayoclinic.org/diseases-conditions/mental-illness/in-depth/mental-health/art-20046477>
- MHA (2024). Work Life Balance. Mental Health America. Retrieved January 2024. <https://www.mhanational.org/work-life-balance>
- Mock, J. (2020). How Caffeine and Alcohol Can Make Your Mental Health Worse. Discover Magazine. Retrieved January 2024. <https://www.discovermagazine.com/health/how-caffeine-and-alcohol-can-make-your-mental-health-worse>
- NAMI (2024). What is Stigma? National Alliance on Mental Illness. Retrieved January 2024. [https://nami.org/Get-Involved/Pledge-to-Be-StigmaFree?gad\\_source=1&gclid=CjwKCAiAzc2tBhA6EiwArv-i6Xyl3LSIEtQy7xd525VpIT3E2KigVc3ySm14\\_Ad7akKKFVTdivP7pxoCYJYQAvD\\_BwE](https://nami.org/Get-Involved/Pledge-to-Be-StigmaFree?gad_source=1&gclid=CjwKCAiAzc2tBhA6EiwArv-i6Xyl3LSIEtQy7xd525VpIT3E2KigVc3ySm14_Ad7akKKFVTdivP7pxoCYJYQAvD_BwE)
- NHLBI (2022). How Sleep Affects Your Health. National Heart, Lung, and Blood Institute. Retrieved January 2024. <https://www.nhlbi.nih.gov/health/sleep-deprivation/health-effects#:~:text=Sleep%20deficiency%20has%20also%20been,or%20depressed%2C%20or%20lack%20motivation.>
- NIA (2021). Loneliness and Social Isolation - Tips for Staying Connected. National Institute on Aging. Retrieved January 2024. <https://www.nia.nih.gov/health/loneliness-and-social-isolation/loneliness-and-social-isolation-tips-staying-connected#:~:text=Find%20an%20activity%20that%20you,%2C%20voice%20call%2C%20or%20text.>
- NIHM (2022). Depression. National Institute of Mental Health. Retrieved January 2024. <https://www.nimh.nih.gov/health/topics/depression>

- Neuroscience News (2023). Untangling the Ties Between Chronic Pain and Mental Health. Retrieved January 2024. <https://neurosciencenews.com/pain-mental-health-risk-23762/>
- Phillips, L. (2022). Stress vs. anxiety vs. burnout: What's the difference? Counseling Today. Retrieved January 2024. <https://ct.counseling.org/2022/01/stress-vs-anxiety-vs-burnout-whats-the-difference/#>
- Ratey, J. (2019). Can Exercise Help Treat Anxiety? Harvard Medical School. Retrieved January 2024. <https://www.health.harvard.edu/blog/can-exercise-help-treat-anxiety-2019102418096>
- Saeed,S.A., Cunningham,K., & Bloch,R.M. (2019). Depression and anxiety disorders: benefits of exercise, yoga, and meditation. *American family physician*, 99(10), 620-627.
- SAMHSA (2023). Mental Health Myths and Facts. Substance Abuse and Mental Health Services Administration. Retrieved January 2024. <https://www.samhsa.gov/mental-health/myths-and-facts>
- Smith, M, Segal, J., Robinson, L. (2024). Burnout Prevention and Treatment. Retrieved January 2024. <https://www.helpguide.org/articles/stress/burnout-prevention-and-recovery.htm>
- Social Work Portal (2023). 2023 Guide on Biopsychosocial Assessment. Retrieved January 2024. <https://www.socialworkportal.com/biopsychosocial-assessment/>
- Suni, E. (2022). Mental Health and Sleep. Sleep Foundation. Retrieved January 2024. <https://www.sleepfoundation.org/mental-health#references-79285>
- Taylor,J. (2023). What is Self-Care? Habits for Wellbeing. Retrieved January 2024. <https://www.habitsforwellbeing.com/what-is-self-care/>

University of Buffalo - School of Social Work (2024). Introduction to Self-Care. Retrieved January 2024. <https://socialwork.buffalo.edu/resources/self-care-starter-kit/introduction-to-self-care.html>

Venkatesh, H.N., Ravish, H., Wilma Delphine Silvia, C.R., Srinivas, H. (2020). Molecular Signature of the Immune Response to Yoga Therapy in Stress-related Chronic Disease Conditions: An Insight. International Journal of Yoga. 13(1):9-17. doi: 10.4103/ijoy.IJOY\_82\_18. Retrieved January 2024. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6937878/>

WHO (2022). Mental Health. World Health Organization. Retrieved January 2024. <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>

WHO (2024). Health and Well-being. World Health Organization. Retrieved January 2024. <https://www.who.int/data/gho/data/major-themes/health-and-well-being#:~:text=The%20WHO%20constitution%20states%3A%20%22Health,of%20mental%20disorders%20or%20disabilities.>

# Appendix A: Biopsychosocial Assessment Template

Retrieved from: Social Work Portal January 2024

<https://casework.socialworkportal.com/private-practice/my-free-tools>

## Biopsychosocial Assessment Template

Report Date:

---

Name of person submitting report:

---

Client/Patient name:

---

Client/Patient date of birth:

---

Date of initial assessment:

---

Basic Information	
Gender	
Referred by	
Current situation	

Safety assessment	
Emotional state	
Physical state	
Priority 1 needs (emergency needs)	
Priority 2 needs (urgent needs)	
Priority 3 needs (short-term needs)	
Priority 4 needs (long-term needs)	
Sources of data collection	

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Background & Detailed Assessment Information	
Individual strengths	
Supports & opportunities	
Identified help resources	

Clinical test scores(e.g. PHQ-9, GAD-7)	
Family composition & history	
Cultural values	
Social circle	
Education	
Past trauma	
Substance use	
Employment history	
Skills	
Leisure activities	
Motivations	
Patterns of crisis	
Criminal history	

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Attitudes about money/ finances	

Medical History	
Is the individual being treated for a physical medical condition?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, please describe.	<p style="text-align: center;"> <i>Quantum Units Education</i>            Affordable. Dependable. Accredited.  <a href="http://www.quantumunitsed.com">www.quantumunitsed.com</a> </p>
List any prior illnesses, operations, and accidents the individual has had.	
Is the individual currently taking any prescription medications for physical issues?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, please list medication and frequency taken.	

List the name of the individual's primary care physician	
Primary care physician contact details	
Add any additional comments related to the individual's mental health and medical history	<p style="text-align: center; opacity: 0.5;">Quantum Units Education Dependable. Accredited. www.quantumunits.com</p>

<b>Impressions, Assessment, Recommendations</b>	
Clinical summary & assessment	
Targets & goals	

Social worker recommendations	

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