



The Effects of Haquapathy on Mental Health

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This chapter highlights the effects of Haqua Revitalize® Therapy (HART) on the Cognitive Processes of the Human Body.

Mental health represents one of the Five Aspects of Health (FAH), often referred to as the PEMSS Aspects of Health (Physical, Emotional, Mental, Spiritual, and Social). It centers on the human brain and central nervous system and their optimal functioning. This article delves into the influence of the Four Essential Elements of Life (FEELs) on mental health, comprising Water, Oxygen, Hydrogen, and Energy (WOHE). These elements serve as vital sources for revitalization and energy, enhancing cognitive performance, improving memory, reducing human errors and accidents, and boosting productivity.

A study from Harvard Health Publishing in 2014 highlighted that regular aerobic exercise, the kind that elevates heart rate and prompts perspiration, has the potential to increase the size of the hippocampus. This brain region is crucial for verbal memory and learning [1]: When individuals engage in physical activity, their muscles convert stored energy into heat energy, causing an increase in body temperature. The hypothalamus, the brain's thermostat, then maintains core temperature stability at approximately 98.6 degrees Fahrenheit or 37 degrees Celsius. Sweating is initiated to release heat and facilitate cooling [2]. This meticulous regulation of temperature is an example of homeostasis, a self-regulating process in biological systems that maintains stability while adjusting to optimal conditions for survival [3]. to ensure its core temperature stays steady at 36.5-37 degrees Celsius (97.7-98.6 degrees Fahrenheit).

According to the American Institute for Preventive Medicine, mental health encompasses more than the absence of mental illness. It also involves one's self-perception and ability to adapt to life's challenges. The National Mental Health Association outlines ten characteristics of mentally healthy individuals [4].

- They possess a positive self-image.
- They effectively manage emotions without becoming overwhelmed.
- They maintain enduring and fulfilling personal relationships.
- They exhibit ease in interacting with others.
- They possess a sense of humor, both about themselves and the world.
- They demonstrate respect for themselves and others, even when facing differences.
- They cope effectively with life's disappointments.
- They meet life's demands and address problems as they arise.
- They make autonomous decisions.
- They exert influence over their environment when possible and adapt to it when necessary.

Haqua Revitalize® Therapy (HART) offers remarkable benefits to the human brain and central nervous system, primarily attributable to the Body's Essential Fuels (BEFs), as substantiated by various studies conducted independently.

Effects of water on mental health

Brain tissue constitutes a significant portion of the human body, containing approximately 85% water. Despite the brain's relatively small size in relation to the body, it demands a substantial share of the body's blood supply, accounting for approximately 1/20th of it. Dehydration can have profound effects on brain function, contribut-

ing to conditions such as depression and chronic fatigue syndrome. Furthermore, migraines may arise as an indicator of compromised body temperature regulation during periods of heat stress, often linked to dehydration. Notably, dehydration can lead to stress, and conversely, stress can exacerbate dehydration [5].

Unfortunately, many individuals fail to meet the minimum daily recommended water intake. For those adhering to the principles of the Therapeutic Methods of Haqua Gulping (TMHG), this natural approach can help ensure that the brain receives the required amount of water. In cases where individuals consume only room temperature water, their body temperature, often exceeding that of the water, may prompt blood vessels to constrict in an attempt to conserve energy, potentially affecting the brain's access to sufficient water. By adopting the principles of TMHG, numerous health issues associated with conditions like migraines, headaches, stress, anxiety, and depression can be effectively addressed. Moreover, this approach could usher in generations marked by unprecedented intelligence, characterized by enhanced judgment, self-awareness, learning capabilities, emotional intelligence, cognition, planning, creativity, critical thinking, and problem-solving.

Losing consciousness can occur if the brain is deprived of blood flow for approximately 8 to 10 seconds. Given that the brain consists of around 73% water, even a relatively small level of dehydration, as low as 2%, can have a noticeable impact on your attention, memory, and various cognitive skills, as reported by All American Healthcare [6]. This underscores the critical importance of staying adequately hydrated to support optimal brain function and cognitive abilities.

Considering that the majority of blood is composed of water, with blood plasma containing as much as 92% water, maintaining adequate hydration is crucial for the brain's efficiency in functions such as memory storage, decision-making, cognitive performance, concentration, and information processing. When water supply to the brain is interrupted for just a few seconds, the body signals this through a loss of consciousness.

Research published in the British Journal of Nutrition indicates that mild dehydration, even without hyperthermia [an elevated body temperature], can result in adverse changes in vigilance and working memory, along with increased feelings of tension, anxiety, and fatigue [7].

Hyperthermia, in simple terms, refers to a body temperature higher than normal [Study.com].

Analogously, this research draws parallels between a car engine running on fuel and the human brain. A car engine performs optimally with a sufficient fuel supply, and its performance may deteriorate or lead to damage when deprived of fuel. Similarly, the human brain exclusively relies on its natural "fuels," including water. This notion aligns with the belief that the portion of water that sustains human life is also the source of intellectual power [8].

This theory is not presented by Napoleon Hill by chance; it establishes a connection between water and Infinite Intelligence. Further elaboration on this connection is provided in [Chapter 2-4-Effects of Haquapathy on Spiritual Health].

In summary, water reaches the brain through the circulatory system, with blood plasma comprising a significant portion of water (92%). By consistently following the Therapeutic Methods of Haqua Gulping (TMHG), individuals can ensure a continuous and adequate supply of water to support optimal brain function and overall mental well-being.

Effects of oxygen on mental health

The University of Rochester Medical Center (2016) affirms that the brain relies predominantly on a form of metabolism that necessitates oxygen to generate energy. Neurons, the specialized cells of the brain, maintain only a limited energy reserve and demand a constant supply of oxygen, especially when they are actively communicating with one another. Remarkably, the brain's oxygen requirements are substantial; although it constitutes just 2% of the body's mass, the brain consumes a remarkable 20% of the body's oxygen supply [9].

The Cleveland Clinic warns that accidents, heart attacks, and strokes can lead to a deprivation of oxygen to the brain, a condition known as cerebral hypoxia. Cerebral hypoxia is a medical emergency, and it can result in permanent brain injury. When the brain is deprived of oxygen for an extended period, it can lead to brain death and coma. The brain is the central controller of the nervous system and requires a constant supply of oxygen for its proper functioning. Approximately one-fifth of the body's total oxygen supply is dedicated to supporting the brain's functions, facilitating the transmission of nerve signals and messages throughout

the body. If the brain doesn't receive an adequate supply of oxygen, brain cells begin to die, with cell death occurring within just 5 minutes of low oxygen levels [10].

The blood plays a crucial role in delivering oxygen to the brain, with red blood cells containing hemoglobin, a protein responsible for oxygen transport. Haqua Revitalize® Therapy (HART) is designed to vasodilate, widening blood vessels to enhance the delivery of oxygen to the brain. Additionally, it's worth noting that the amount of oxygen available from the environment is typically limited to around 21%. In contrast, Haqua Revitalize® Therapy (HART) offers a remarkable advantage by providing 100% oxygen to the brain, lungs, and cells, as further detailed in [Chapter 3-1-2- Oxygen Therapy - The Therapeutic Effects of Oxygen]. This capability ensures that the brain receives an optimal supply of oxygen, supporting its vital functions and overall mental well-being.

Effects of hydrogen on mental health

The brain maintains an intracellular pH (pH within the cell) at approximately 7.2, as revealed by research conducted by Orłowski P. and colleagues in 2011 [11]. The regulation of pH is a critical homeostatic function shared by all tissues in the body. Mechanisms governing the balance of hydrogen ions (H⁺) in both intracellular and extracellular fluids are of particular significance in the brain. This importance arises because electrical activity in the brain can trigger rapid pH changes in both compartments [12].

Hydrogen is conveyed to the brain through the bloodstream, and Haqua Revitalize® Therapy (HART) uniquely enables the brain to receive the necessary supply of hydrogen. Interestingly, there are no identified alternative sources for obtaining hydrogen for the brain, aside from Haqua Revitalize® Therapy (HART), especially through the implementation of the Therapeutic Methods of Haqua Gulping (TMHG) [Chapter 3-1-3- Hydrogen Therapy – The Therapeutic Effects of Hydrogen]. This insight raises the possibility that many mental dysfunctions may be linked to the depletion of hydrogen in the nervous system, shedding light on a potentially significant aspect of mental well-being that warrants further exploration.

Effects of Energy on Mental Health

The human brain is an energy powerhouse, consuming up to 20 percent of the body's total energy resources [13]. When you're awake, your brain generates between 10 and 23 watts of power, which is equivalent to the energy needed to power a light bulb (All

American Healthcare). Research shows that a short-term healthy lifestyle program that combines mental and physical exercise, stress reduction, and a balanced diet can have significant positive effects on cognitive function and brain metabolism. In particular, reduced resting activity in the left dorsolateral prefrontal cortex [a region associated with executive functions like working memory and selective attention (Sciencedirect.com)], may indicate improved cognitive efficiency [14].

Physical exercise (PE) has been found to yield both biological and psychological benefits that profoundly impact brain function and overall well-being. PE plays a crucial role in counteracting the effects of normal aging and even pathological aging. Recent evidence suggests that physical exercise can trigger potent neuroplastic changes in the brain, partly mediated by epigenetic mechanisms [15]. Additionally, exposure to morning sunlight may have a more significant impact on adrenal cortex physiology than previously recognized [16]. The adrenal cortex, located in the outer part of the adrenal gland, produces hormones that support overall well-being [17]. Sunlight exposure is believed to boost the release of serotonin in the brain, a hormone associated with improved mood and enhanced focus [18].

Stephanie Seneff, a Senior Research Scientist at the Massachusetts Institute of Technology [19], has uncovered several intriguing benefits of sunlight exposure, including

- Synthesis of sulfate from sulfide in the skin and bloodstream using energy from sunlight.
- Production of vitamin D3 sulfate in skin cells upon sun exposure. Vitamin D3 is derived from cholesterol, and skin cells also produce abundant cholesterol sulfate.
- An increase in sunburn frequency linked to reduced all-cause mortality.
- The role of sulfation in making cholesterol water-soluble, facilitating its transport.
- Cholesterol sulfate in the skin and lungs acts as a barrier against bacteria while retaining moisture.
- The cardiovascular system can be seen as a factory that supplies cholesterol and sulfate to the heart and kidneys.
- A prediction that statin drugs, used to lower cholesterol levels, may lead to heart failure by depleting cholesterol sulfate supplies [20].

Sunlight's energy converts a chemical in your skin into vitamin D3, which is then transported to your liver and kidneys for conversion into active vitamin D. Sunlight contains two forms of radiant energy, ultraviolet A (UVA) and ultraviolet B (UVB), with UVB providing the energy required for vitamin D production (Harvard Health Publishing, 2021) [21].

In medicine, the term "electrotherapy" encompasses various treatments, including the use of electrical devices such as deep brain stimulators for neurological diseases [22]. Our bodies contain approximately 100,000 miles of blood vessels [23]. Physical exercise has the remarkable ability to stimulate the multiplication of nerve cells, strengthen their connections, and safeguard them from damage, allowing the brain to operate at peak efficiency [24]. It is increasingly evident that vitamin D plays a crucial role in maintaining brain health, as evidenced by the discovery of vitamin D receptors in the brain, spinal cord, and central nervous system [25].

Ever wondered why you can't tickle yourself? When you move a part of your own body, a section of your brain anticipates the sensations it will cause, preventing self-tickling (Neuroscience for Kids) [26]. Our bodily symptoms can serve as a gateway to self-healing and the management of various conditions, recognizing that the body and mind are intricately interconnected [27]. Psychological factors have the potential to influence physical conditions both directly and indirectly. For instance, depression can directly impact insomnia, disrupting sleep patterns and quality. On the other hand, anxiety can act as an indirect factor for conditions like lung cancer. People who experience anxiety often turn to smoking as a means to alleviate their anxious feelings, and this habit can ultimately lead to the development of lung cancer.

Hypertension, medically known as chronically high blood pressure, is another condition susceptible to the influence of psychological factors (Psychological Factors Affecting Physical Conditions Like Hypertension and Asthma) [28]. This underscores the significance of addressing both mental and physical aspects of health in a holistic approach to well-being.

Humans possess the unique ability to engage in complex behaviors that would require extensive training for any other creature on Earth. We can effortlessly connect a string of concepts we read or hear, forming new ideas on the spot [29]. Research indicates that sleep plays a critical role in learning and memory. Sleep-deprived

individuals struggle to focus, hindering efficient learning. Furthermore, sleep is involved in the consolidation of memory, a fundamental process for acquiring new information [30].

The wealth of scientific knowledge regarding the benefits of sunlight, sunbathing, and physical exercise is readily attainable through the BICADU Theory (Believe, Implement, Continue, Appreciate, Discipline, and Understand) of Haqua Revitalize® Therapy (HART), Haquapathic Medicine (HAM), or simply Haquapathy [chapter 13-2]. This natural therapy harnesses the body's inherent energy shift, driven by the temperature differential between Haqua and the body. It's supported by scientific principles, such as the Second Law of Thermodynamics [Chapter 3-1-4-9- Haquapathy and Calorie Burn: Exploring the Connection]. Haquapathy effectively addresses the scientific debates surrounding sunlight, sunbathing, suntanning, and physical exercise, emerging as a primary component in achieving holistic well-being across the five aspects of health (FAH). Other natural health benefits, like physical exercise and sunlight, are secondary to the comprehensive approach of Haquapathy.

In summary, Haqua Revitalize® Therapy (HART), Haquapathic Medicine (HAM), or simply Haquapathy can be considered the "missing piece" in the puzzle of holistic health for the following reasons.

During physical exercise and sunlight exposure, the body taps into the Four Essential Elements of Life (FEELs): water, oxygen, hydrogen, and energy. This fuels physical activity, muscle growth, bone strength, and cognitive improvement. The process also involves breaking down fat deposits in various organs, replenished through dietary fats metabolized into fatty acids, and converted into energy for cells—a phenomenon we term the "fat cycle."

Haqua Revitalize® Therapy (HART), Haquapathic Medicine (HAM), or Haquapathy emphasizes the Internum Therapeutic Method (ITM) [Chapter 6-1], specifically the Haqua Gulping Method (HGM), referred to as the Therapeutic Methods of Haqua Gulping (TMHG) [Chapter 6-1-1]. Without Haquapathy, there is no alternative solution to replenish all the FEELs in the body. The body's intricate system relies on these elements, making Haquapathy essential for maintaining its life cycle, segmented into water, oxygen, hydrogen, and energy cycles.

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