



MIND ROLE IN HUMAN HEALTH, LONGEVITY AND DENTAL PROBLEMS CAUSING DEMENTIA

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ABSTRACT

The human mind is guided by amygdala, hippocampus and pre-birth (AHP) memories (childhood memories) which are unique to every human, even for sisters and brothers. Mind is a decision maker for everything a human does. When humans, with different minds, interact together stress may result if they don't realize that everyone's mind is unique/different. This may lead to social problems which can affect health, longevity and quality of life. This paper uniquely discusses the effect of the mind on health, longevity and quality of human life. The minds of centenarians in blue zones differ from the minds of non-centenarians. Minds help centenarians live longer. Studies suggest that gum disease is linked to Alzheimer/dementia disease and cognitive decline. Potentially this is due to inflammation along Microbiome-Gut-Brain-Axis (MGBA) and bacteria in MGBA bloodstream entering the brain and causing dementia. This paper addresses all the above problems using the latest/unique biomedical technologies and mind model developed by the author of this paper.

KEYWORDS :

Centenarians In Blue Zones

Blue Zones (BZ), as seen in Fig. 1, are geographic areas with lower rates of chronic diseases and longer life expectancy. How are centenarian minds different and what role do they play in their longevity? Diet, fasting, and exercise are factors associated with BZ which are determined by the human mind. Italy, Greece, Japan, Costa Rica, and the United States have BZs [1] and the diets in blue zones [2] are Okinawa diet, Sardinia diet, Ikaria diet, Nicoya diet, Seventh-day Adventist diet. An interesting question is why not all people live 100 years or more in blue zones? Minds of all people in blue zones are different because, in addition to external factors, Prebirth (P), Amygdala Scripts (AS), and Hippocampus (H) (PASH) play crucial roles [3]. PASH and external factors, such as diet, lifestyle, stress, and social environment, can greatly affect how long one lives.



Fig. 1 Blue zones where humans live 100 years and more.

Super Foods

Super foods are (a) high in antioxidants, vitamins, minerals, and fiber, (b) low in calories and fat, and (c) beneficial for overall health and well-being. Here are some examples of foods that slow down aging & help live longer; garlic, broth, matcha green tea, medical honey, curcumin, black seed oil, olive oil, ginkgo biloba, fish oil, coconut manna, and sprouted grains. People in blue zones seem to eat partly super foods.



Fig. 2 A detailed mind model affected by pre-birth, amygdala and hippocampus memories in addition to other factors mentioned above.

Latest Mind Model

Fig. 2 shows a detailed mind model affected by pre-birth, amygdala and hippocampus memories in addition to other factors mentioned.

This is the latest mind model suggested by the author that is consistent with author's earlier versions of mind model [4][5][6][7] when pre-birth embryo is added. Embryo's brain development during weeks 3-9 of pregnancy is very important because if the pregnant mother is under stress the embryo development is affected which could make childhood memories different even among humans born from the same mother. As the human mind is the decision maker for anything a human does, the mind affects how long a human lives. As in the blue zones foods and environments are not the same, the mind seems to be the reason for longevity in blue zones.

As the human mind is guided by amygdala, hippocampus and pre-birth memories (known as childhood memories), it is a decision maker for everything a human does. Consequently, the mind is unique for every human even for the children of the same parents. Twin's minds may be slightly different. When humans, with different minds, interact together stress may result, leading to social problems which affect health, longevity and quality of life. This paper uniquely discusses the effect of the mind on health, longevity and quality of human life. People living in different blue zones have one aspect of their minds similar and that is to live 100 or more years. Their minds help them live longer by focusing on foods/socialization that help focus on health, longevity and quality of life.

Dental Problems And Dementia

The mouth and gut are connected through the gut-brain axis, and poor oral health can lead to dental problems. Dental problems can significantly impact the Microbiome Gut Brain Axis (MGBA) operation leading to dementia. Oral care affects dementia [8] making dental care important for people living with dementia [9]. This is because oral and gut microbiomes are interconnected, and imbalances in one can affect the other, ultimately impacting brain function if some bacteria enter the brain. The mouth and gut are connected through the gut-brain axis, meaning they influence each other's health. Poor oral hygiene and untreated oral diseases can introduce harmful bacteria into the gut, disrupting the balance of the gut microbiome (dysbiosis). Oral inflammation, such as from gingivitis or periodontitis, can lead to systemic inflammation, including in the gut and brain. Dental procedures like tooth extractions and periodontal treatment can alter the composition of the gut microbiome. The gut microbiome produces neurotransmitters and other chemicals that can affect brain function, and imbalances can lead to cognitive and mood issues. Here are some examples:

- Poor oral hygiene can lead to acid reflux, which can damage the gut lining and further contribute to dysbiosis.
- Studies suggest that gum disease is linked to Alzheimer's disease and cognitive decline, potentially due to inflammation and bacteria entering the bloodstream and the brain.
- Tooth loss has been associated with changes in gut anti-inflammatory bacteria, suggesting a link to systemic inflammatory responses.
- The Oral-Microbiome-Brain Axis (OMBA) and Neuropsychiatric

Disorders (ND) can result.

CONCLUSIONS

The human mind is guided by amygdala, hippocampus and pre-birth (AHP) memories (childhood memories) which are unique to every human, even for sisters and brothers. Mind is a decision maker for everything a human does. When humans, with different minds, interact together stress may result if they don't realize that everyone's mind is unique/different. This may lead to social problems which can affect health, longevity and quality of life. This paper uniquely discusses the effect of the mind on health, longevity and quality of human life.

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REFERENCES

- [1] Blue Zones; <https://jamestownspine.com/blue-zones/>
- [2] Blue Zone Diets; <https://www.healthline.com/nutrition/blue-zone-diets>
- [3] D.M. Aslam, "HUMAN PERSONALITY AND HEALTH DEPEND ON PRE-BIRTH, HIPPOCAMPAL AND AMYGDALA MEMORIES", [https://www.worldwidejournals.com/indian-journal-of-applied-research-\(IJAR\)/fileview/human-personality-and-health-depend-on-prebirth-hippocampal-and-amygdala-memories-_April_2025_7631024820_7215250.pdf](https://www.worldwidejournals.com/indian-journal-of-applied-research-(IJAR)/fileview/human-personality-and-health-depend-on-prebirth-hippocampal-and-amygdala-memories-_April_2025_7631024820_7215250.pdf)
- [4] D.M. Aslam, "Intriguing Aspects of New Scientific Mind Model as EEG Data Based Algorithm", <https://ijarce.com/wp-content/uploads/2020/01/IJARCE.2019.81216.pdf>
- [5] D.M. Aslam, "Self-Study and -Care of Human Health Problems Guided by New Scientific Mind Model", Int. J. Adv. Research Computer & Comm. Eng., (IJARCE), 10 (5), 2021; DOI 10.17148/IJARCE.2021.10502; <https://ijarce.com/wp-content/uploads/2021/05/IJARCE.2021.10502.pdf>
- [6] D.M. Aslam, "Technology, MGBA and Mind Roles in Personality, Health, and Longevity of Humans"; IJARCE 12 (10), 2023; DOI: 10.17148/IJARCE.2023.121009; <https://ijarce.com/wp-content/uploads/2023/11/IJARCE.2023.121009.pdf>
- [7] D.M. Aslam, "Mind as MGBA-Data-Based Algorithm and Brain Parts Affecting Internal Balancer and Autism", [https://www.worldwidejournals.com/indian-journal-of-applied-research-\(IJAR\)/fileview/mind-as-mgbadatabase-algorithm-and-brain-parts-affecting-internal-balancer-and-autism_March_2025_5328411487_6909619.pdf](https://www.worldwidejournals.com/indian-journal-of-applied-research-(IJAR)/fileview/mind-as-mgbadatabase-algorithm-and-brain-parts-affecting-internal-balancer-and-autism_March_2025_5328411487_6909619.pdf)
- [8] M. Jonker, C. Engelsma, D.J. Manton, and A. Visser, "Barriers and Facilitators Concerning Involuntary Oral Care for Individuals with Dementia: A Qualitative Study"; <https://pmc.ncbi.nlm.nih.gov/articles/PMC11942383/pdf/ijerph-22-00460.pdf>
- [9] A. Geddis-Regan, "Dental care for people living with dementia: current challenges and planning for the future; The UK perspective"; Community Dental Health (2023) 40, 125–130; https://journals.sagepub.com/doi/pdf/10.1922/CDH_00279Geddis-Regan06?casa_token=Ic49e376tRIAAAAA:sgJmOZAvpn1cmH_2AysZx0c0jtfHGy8QxcRKW_Ixtv6u9AbMnV6kye2202Ksw-4Gx5A5cijYfmCa7r0