Making Life Skills a High Priority in K-12 Curriculum

*Note: Everything in this article is supported with key references extracted from my textbook Diet and Lifestyle Enhancement Strategies for Becoming Superhuman: Leading-Edge - Comprehensive – Science-Based (DLE).*

By teaching life skills in the K-12 curriculum the majority of society's problems can be solved (ex. delinquency/aggression[[1]](#footnote-2), diseases, disorders, and poor health and performance in general). Doing so will also improve work quality, innovation, invention, and more. The human body is a physical, emotional, and mental machine that is optimized with good life skills. Optimizing it sets a foundation for making good decisions and following through with them. Of particular importance is the Prefrontal Cortex (PFC)[[2]](#footnote-3), which gives people the ability to identify, engage, and follow through with good decisions as well as ignore emotional and primitive distractions[[3]](#footnote-4).

The most fundamental life skills are diet/nutrition[[4]](#footnote-5), exercise[[5]](#footnote-6), sleep[[6]](#footnote-7), consistent routines[[7]](#footnote-8), avoiding[[8]](#footnote-9)/detoxifying[[9]](#footnote-10) toxins/pollution, and stress[[10]](#footnote-11) resilience/management[[11]](#footnote-12). When developed/not developed, overall[[12]](#footnote-13), physical[[13]](#footnote-14), emotional[[14]](#footnote-15), and mental[[15]](#footnote-16) health and performance improves/declines. In general, when any part of the body or mind is well/unwell, other parts are affected similarly[[16]](#footnote-17).

With a good foundation in these skills, all brain functions improve, especially when they are exercised as dictated by the science of Brain Exercises[[17]](#footnote-18). These exercises aim to strengthen the brain in specific ways, similar to how a gym routine is used to strengthen a physical athlete in specific ways. Even something as simple as listening to a slightly different sound frequency in each ear can significantly improve brain performance and mood[[18]](#footnote-19).

Communication (ex. forming an argument and debating/discussing) and relationship skills[[19]](#footnote-20) (ex. emphasis on male-female[[20]](#footnote-21) and conflict resolution[[21]](#footnote-22)) are fundamental for working with others. They can also be considered a form of stress management because they prevent stress.

​Preconception[[22]](#footnote-23), pregnancy[[23]](#footnote-24), and parenting[[24]](#footnote-25) are vital life skills when it comes to optimizing the evolution of humanity[[25]](#footnote-26). By teachings students academic perspectives on these subjects, they are less likely to conceive accidentally and are more likely to raise a child well. Many agree that the most significant influence contributing to delinquency[[26]](#footnote-27), disease, disorder, and poor health and performance in general, are children conceived accidentally by people who are not prepared to raise them well[[27]](#footnote-28).

How to reduce pollution[[28]](#footnote-29), work with government services, concepts of ethics and happiness[[29]](#footnote-30), present problems facing humanity, and big picture concepts of an individual’s role in society (having/not having purpose[[30]](#footnote-31) is a powerful influence) are very important too.

​An introduction to these subjects is not enough!  They need to be taught progressively throughout elementary and especially high school, which will require parts of the existing curriculum to be restructured or removed (lots never gets used in a student's future).  Doing so ensures the information is retained on the surface of their psyche, making it more accessible for decisions they make every day.  As well, a progressive education helps students learn more about the science behind these skills, which encourages there use.  For example, those who know more about the science behind healthy diet, exercise, and sleep techniques tend to use them.

​The biggest challenge is designing and implementing a new curriculum. I suggest designing a draft curriculum and getting feedback by posting it to a special website I’ve been designing since 2011 called Global Document Development (GDD). GDD adds hashtags at the end of every sentence, paragraph, image, sub-section, section, and the document so users can comment/vote on specific parts of the document. A difference between facebook and GDD is that GDD only has informative engagement features (ex. agree/disagree, support, dispute, question, etc) as well as artificial intelligence and user feedback to reduce redundant and incongruous/uninformative posts. With a good design for convenience and efficiency, this website can serve to enhance communication within and between any large group (ex. government and public/businesses).

​Imagine the billions of dollars saved on a national level when the educating of these life skills start preventing things like delinquency, premature parents, disease/disorder[[31]](#footnote-32), and poor health and performance in general!  Now imagine the billions saved and earned as healthier more capable people fill society with a better understanding of themselves, society, and their planet!

**Epilogue: Some Specifics on Delinquency/Aggression**

The references in italic do not come from DLE.

*Liu, et al.; 2012. Understanding Aggressive Behavior Across the Life Span. J Psychiatr Ment Health Nur.* Discusses studies that found children exposed to violent media, malnutrition, poor parenting, depression, and drug abuse/addictions[[32]](#footnote-33) were more aggression. Some preconception studies are discussed as well, which includes exposure to conventional air pollutants increasing the probability of aggression later in life.

*Gesch, 2013. Adolescence: Does good nutrition = good behaviour? Nutr Health.* Discusses how multiple double blind studies found a significant reduction in violence after a short peroid of adolescent inmates using key supplements. Studies showing excessive consumption of sugar, toxins, and malnutrition promoted violence and other delinquent acts are also discussed; some are preconception studies.

*Marsiglio, et al.; 2014. Examining the link between traumatic events and delinquency among juvenile delinquent girls: A longitudinal study. J Child Adolesc Trauma. & Dierkhising, et al; 2013. Trauma histories among justice-involved youth: findings from the National Child Traumatic Stress Network. Eur J Psychotraumatol.* Delinquent acts are usually the source of other people’s traumas. Traumas often result in a lowering of overall health and performance (life skills) as well an increase in delinquent behaviours. Reducing trauma is best done by teaching life skills in the K-12 curriculum (prevents delinquency and improves recovery).

*Younan, et al.; 2016. Environmental Determinants of Aggression in Adolescents: Role of Urban Neighborhood Greenspace. J Am Acad Child Adolesc Psychiatry.* This study found that Greenspaces reduced aggression in adolescents. Many studies find that Greenspaces (ex. vegetation and natural settings; even when artificial[[33]](#footnote-34)), also known as Ecotherapy, can enhance the health and performance of humans in general[[34]](#footnote-35).

**Endnotes:**

Note: Lots of the articles referenced below are free online. Those that are not might be available through your local University (many have public computers).​

Remember, DLE = Diet and Lifestyle Enhancement Strategies for Becoming Superhuman: Leading-Edge - Comprehensive – Science-Based.

1. See the epilogue of this article. [↑](#footnote-ref-2)
2. Schmeichel and Demaree; 2010. Working Memory Capacity and the Self-Regulation of Emotional Expression and Experience. Emotion. & Alloway and Alloway; 2010. Investigating the predictive roles of working memory and IQ in academic attainment. J Exp Child Psychol. & Working Memory Training on Wikipedia. & Appendix A and Section 3 of DLE. [↑](#footnote-ref-3)
3. Raichle; 2015. The brain’s default mode network. Annu. Rev. Neurosci. & Buckner, et al; 2008. The brain’s default network: anatomy, function, and relevance to disease. Ann. N. Y. Acad. Sci. & Default Network Mode on Wikipedia. & Chapter 22 of DLE. [↑](#footnote-ref-4)
4. Most Chapters and Appendices of DLE. [↑](#footnote-ref-5)
5. Chapter 1 of DLE. [↑](#footnote-ref-6)
6. Chapter 10 of DLE. [↑](#footnote-ref-7)
7. Chapter 11 of DLE. [↑](#footnote-ref-8)
8. Chapter 16 of DLE. [↑](#footnote-ref-9)
9. Chapter 17-20 of DLE. [↑](#footnote-ref-10)
10. Stress can significantly speeds up the aging process when it is substantial, especially when the body is unhealthy due to poor performance with fundamental life skills. McEwen, et al; 2015. Mechanisms of stress in the brain. Nat Neurosci. & [↑](#footnote-ref-11)
11. Chapter 25 of DLE. [↑](#footnote-ref-12)
12. **Diet/Nutrition:** The prevention and control the type-2 diabetes by changing lifestyle and dietary pattern. J Educ Health Promot. & Up to 40 Percent Decrease of Nutrients in Our Food on Dr. Mercola website. & Sustainable Agricultural on Wikipedia. & True Costs of Industrial Agriculture on Dr. Mercola website. & Alcohol: Balancing Risks and Benefits on Harvard website. & Shreiner, et al; 2016. The gut microbiome in health and in disease. Curr Opin Gastroenterol. Aging: Ottaviani, et al., 2011. Gut microbiota as a candidate for lifespan extension: an ecological/evolutionary perspective. & Luevano-Conteras and Chapman-Novakofski; 2010. Dietary Advanced Glycation End Products and Aging. Nutrients. targeted on living organisms as metaorganisms. Biogerontology. & Fontana and Partridge; 2015. Promoting Health and Longevity through Diet: from Model Organisms to Humans. Cell. & Asif; 2014. **Sleep:** Mazzotti, et al; 2014. Human longevity is associated with regular sleep patterns, maintenance of slow wave sleep, and favorable lipid profile. Front Aging Neurosci. & Jenwitheesuk, et al; 2014. Melatonin Regulates Aging and Neurodegeneration through Energy Metabolism, Epigenetics, Autophagy and Circadian Rhythm Pathways. Int J Mol Sci. & Colrain, et al; 2014. Alcohol and the sleeping brain. Handb Clin Neurol. & Souza and Ribeiro; 2015. Sleep deprivation and gene expression. Curr Top Behav Neurosci. **Exercise:** Gradari, et al; 2016. Can Exercise Make You Smarter, Happier, and Have More Neurons? A Hormetic Perspective. Front Neurosci.& O'Sullivan, et al; 2015. Exercise and the microbiota. Gut Microbes. **Routines:** Choi and Friso; 2010. Epigenetics: A New Bridge between Nutrition and Health. Adv Nutr & McCraty, et al; 2009. The Coherent Heart Heart–Brain Interactions, Psychophysiological Coherence, and the Emergence of System-Wide Order. Integral Review. & Conlon and Bird; 2015. The Impact of Diet and Lifestyle on Gut Microbiota and Human Health. Nutrients. & Oschmann et al, 2015. The effects of grounding (earthing) on inflammation, the immune response, wound healing, and prevention and treatment of chronic inflammatory and autoimmune diseases. Journal of Inflammation Research. & Andrade and Radhakrishnan; 2009. Prayer and healing: A medical and scientific perspective on randomized controlled trials. Indian J Psychiatry. & Martin, et al; 2011. Behavioral Factors of Longevity. J Aging Res. & Steptoe, et al; 2013. Social isolation, loneliness, and all-cause mortality in older men and women. Proc Natl Acad Sci U S A. & How Hugs Heal — Have You Had a Hug Today? on Dr. Mercola. **Stress Resilience/Management:** Kinser, et al; 2016. Self-Administered Mind-Body Practices for Reducing Health Disparities: An Interprofessional Opinion and Call to Action. Evid Based Complement Alternat Med. & Reed; 2016. Coping with occupational stress: the role of optimism and coping flexibility. Psychol Res Behav Manag. & Krushna, et al; 2014. Slow Yogic Breathing Through Right and Left Nostril Influences Sympathovagal Balance, Heart Rate Variability, and Cardiovascular Risks in Young Adults. N Am J Med Sci. & Sharma; 2015. Meditation: Process and effects. Ayu. & Bussing, et al; 2012. Effects of Yoga on Mental and Physical Health: A Short Summary of Reviews. Evid Based Complement Alternat Med. & Stuckey and Nobel; 2010. The Connection Between Art, Healing, and Public Health: A Review of Current Literature. Am J Public Health. & Chee Keng Lee, et al; 2015. Value of urban green spaces in promoting healthy living and wellbeing: prospects for planning. Risk Manag Healthc Policy. **Avoiding Toxins/Pollution:** Yang, et al; 2011. Most plastic products release estrogenic chemicals: a potential health problem that can be solved. & How to Recognize the Plastics That are Hazardous to You on Dr. Mercola website. Environmental Health Perspectives. & Sustainable Agricultural on Wikipedia. & Organic Farming on Wikipedia. & Redlarski, et al; 2015. The Influence of Electromagnetic Pollution on Living Organisms: Historical Trends and Forecasting Changes. Biomed Res Int. Detoxification: & Mattson & Wan; 2005. Beneficial effects of intermittent fasting and caloric restriction on the cardiovascular and cerebrovascular systems. J Nutr Biochem. & Mooventhan and Nivethitha; 2014. Scientific Evidence-Based Effects of Hydrotherapy on Various Systems of the Body. N Am J Med Sci. & Acosta and Cash; 2009. Clinical effects of colonic cleansing for general health promotion: a systematic review. Am J Gastroenterol. [↑](#footnote-ref-13)
13. **Diet/Nutrition:** Boeing, et al; 2012. Critical review: vegetables and fruit in the prevention of chronic diseases. Eur J Nutr. & Lila; 2007. From beans to berries and beyond: teamwork between plant chemicals for protection of optimal human health. Ann N Y Acad Sci. & Kannappan et al., 2011. Neuroprotection by Spice-Derived Nutraceuticals: You Are What You Eat! Mol Neurobiol. & Hever; 2016. Plant-Based Diets: A Physician’s Guide. Perm J & Popkin, et al; 2010. Water, Hydration and Health. Nutr Rev. & Top Vitamin and Mineral Deficiencies — Are You at Risk? on Dr. Mercola website. & Schmidt, et al; 2013. Serum Uric Acid Concentrations in Meat Eaters, Fish Eaters, Vegetarians and Vegans: A Cross-Sectional Analysis in the EPIC-Oxford Cohort. PLoS One. & Alisson-Silva, et al; 2016. Human risk of diseases associated with red meat intake: Analysis of current theories and proposed role for metabolic incorporation of a non-human sialic acid. Mol Aspects Med. & Spanogiannopoulos, et al; 2016. The microbial pharmacists within us: a metagenomic view of xenobiotic metabolism. Nat Rev Microbiol. & Hullar, et al; 2014. Gut Microbes, Diet, and Cancer. Cancer Treat Res. & Roerig, et al; 2010. Laxative abuse: epidemiology, diagnosis and management. Drugs. & Oschmann et al, 2015. The effects of grounding (earthing) on inflammation, the immune response, wound healing, and prevention and treatment of chronic inflammatory and autoimmune diseases. Journal of Inflammation Research. Brain: Gomez-Pinilla; 2008. Brain foods: the effects of nutrients on brain function. Nat Rev Neurosci. & Murphy, et al; 2014. Effects of diet on brain plasticity in animal and human studies: mind the gap. Neural Plast. & Sullivan, et al; 2010. Alcohol’s Effects on Brain and Behavior. Alcohol Res Health. Aging: Riscuta; 2016. Nutrigenomics at the Interface of Aging, Lifespan, and Cancer Prevention. J Nutr. & Robinson, et al; 2017. Adult Lifetime Diet Quality and Physical Performance in Older Age: Findings From a British Birth Cohort. The Journals of Gerontology: Series A. & Samaras, et al; 2014. Off-label use of hormones as an antiaging strategy: a review. Clin Interv Aging. & Calabrese, et al; 2011. Hormesis, cellular stress response and vitagenes as critical determinants in aging and longevity. Mol Aspects Med. & Shamsi, et al; 2017. A review on protein misfolding, aggregation and strategies to prevent related ailments. Int J Biol Macromol. **Exercise:** Arem, et al; 2015. Leisure time physical activity and mortality: a detailed pooled analysis of the dose-response relationship. JAMA Intern Med. & Ntanasis-Stathopoulos, et al; 2013. Epigenetic regulation on gene expression induced by physical exercise J Musculoskelet Neuronal Interact. & Mendelsohn and Larrick; 2013. Trade-offs between anti-aging dietary supplementation and exercise. Rejuvenation Res. **Sleep:** Sjodin, et al; 2015. Physical activity, sleep duration and metabolic health in children fluctuate with the lunar cycle: science behind the myth. Clin Obes. & Smolensky, et al; 2016. Circadian disruption: New clinical perspective of disease pathology and basis for chronotherapeutic intervention. Chronobiol Int. **Routines:** Roth; 2012. Shift work disorder: overview and diagnosis. J Clin Psychiatry. & Mic, et al; 2016. Nutrigenetics and Nutrimiromics of the Circadian System: The Time for Human Health. Int J Mol Sci. & Golombek DA, et al., 2013. The times they’re a-changing: effects of circadian desynchronization on physiology and disease. J Physiology-Paris. & Han and Lean; 2016. A clinical perspective of obesity, metabolic syndrome and cardiovascular disease. JRSM Cardiovasc Dis. & Grolleau-Julius, et al; 2013. The Role of Epigenetics in Aging and Autoimmunity. Clin Rev Allergy Immunol. **Stress Resilience/Management:** Lee, et al; 2015. The Effect of Emotional Stress and Depression on the Prevalence of Digestive Diseases. J Neurogastroenterol Motil. & Lavretsky and Newhouse; 2012. Stress, Inflammation and Aging. Am J Geriatr Psychiatry. & Avvenuti, et al; 2016. Optimism’s Explicative Role for Chronic Diseases. Front Psychol. & Avvenuti, et al; 2016. Optimism’s Explicative Role for Chronic Diseases. Front Psychol. & Ma, et al; 2013. Gratitude is associated with greater levels of protective factors and lower levels of risks in African American adolescents. J Adolesc. & Hill, et al; 2013. Examining the Pathways between Gratitude and Self-Rated Physical Health across Adulthood. Pers Individ Dif. & Brower; 2006. Mind–body research moves towards the mainstream. EMBO Rep. **Avoiding Toxins/Pollution:** Schwalfenberg and Genius; 2015. Vitamin D, Essential Minerals, and Toxic Elements: Exploring Interactions between Nutrients and Toxicants in Clinical Medicine. ScientificWorldJournal. & Pollard, et al; 2010. Toxicology of Autoimmune Diseases. Chem Res Toxicol. & Kuo, et al; 2012. Immunomodulatory effects of environmental endocrine disrupting chemicals. Kaohsiung J Med Sci. & Lewczuk, et al; 2014. Influence of electric, magnetic, and electromagnetic fields on the circadian system: current stage of knowledge. Biomed Res Int. Detoxification:Longo and Mattson; 2014. Fasting: Molecular Mechanisms and Clinical Applications. Cell Metab. & Ingenbleek and Kimura; 2013. Nutritional essentiality of sulfur in health and disease. Nutr Rev. & Hodges and Minich; 2015. Modulation of Metabolic Detoxification Pathways Using Foods and Food-Derived Components: A Scientific Review with Clinical Application. J Nutr Metab. [↑](#footnote-ref-14)
14. **Diet/Nutrition:** Quirk, et al; 2013. The association between diet quality, dietary patterns and depression in adults: a systematic review. BMC Psychiatry. & McIntyre, et al; 2007. Should Depressive Syndromes Be Reclassified as "Metabolic Syndrome Type II"? Ann Clin Psychiatry. & Pross, et al; 2014. Effects of Changes in Water Intake on Mood of High and Low Drinkers. PLoS One. & Shaik and Gan; 2015. Vitamin Supplementation as Possible Prophylactic Treatment against Migraine with Aura and Menstrual Migraine. Biomed Res Int. & Bozzatello, et al; 2016. Supplementation with Omega-3 Fatty Acids in Psychiatric Disorders: A Review of Literature Data. & Bostock, et al; 2017. The Current Status of the Ketogenic Diet in Psychiatry. Front Psychiatry. & Deans; 2017. Microbiome and mental health in the modern environment. J Physiol Anthropol. & Dash, et al; 2015. The gut microbiome and diet in psychiatry: focus on depression. Curr Opin Psychiatry. & Schnorr and Bachner; 2016. Integrative Therapies in Anxiety Treatment with Special Emphasis on the Gut Microbiome. Yale J Biol Med. **Exercise:** Sharma, et al; 2006. Exercise for Mental Health. Prim Care Companion J Clin Psychiatry. & Anderson and Shivakumar, 2013. Effects of Exercise and Physical Activity on Anxiety. Front Psychiatry. & Blumenthal, et al; 2013. Is Exercise a Viable Treatment for Depression? ACSMs Health Fit J. **Sleep:** Nagendra, et al; 2012. Meditation and Its Regulatory Role on Sleep. Front Neurol. & Bellivier, et al; 2015. Sleep- and circadian rhythm associated pathways as therapeutic targets in bipolar disorder. Expert Opin Ther Targets. **Routines:** Khosravi, et al; 2015. Healthy and Unhealthy Dietary Patterns Are Related to Depression: A Case-Control Study. Psychiatry Investig. & Albrecht; 2017. Molecular Mechanisms in Mood Regulation Involving the Circadian Clock. Front Neurol. & Grierson, et al; 2016. Circadian rhythmicity in emerging mood disorders: state or trait marker? Int J Bipolar Disord. & Bellivier, et al; 2015. Sleep- and circadian rhythm associated pathways as therapeutic targets in bipolar disorder. Expert Opin Ther Targets. **Stress Resilience/Management:** Killingsworth and Gilbert; 2010. A wandering mind is an unhappy mind. Science. & Gouda, et al; 2016. Students and Teachers Benefit from Mindfulness-Based Stress Reduction in a School-Embedded Pilot Study. Front Psychol. & Elder, et al; 2014. Effect of transcendental meditation on employee stress, depression, and burnout: a randomized controlled study. Perm J. & Giving to Others Makes You Happy on Dr. Mercola website. & Hofmann; 2008. Cognitive processes during fear acquisition and extinction in animals and humans: Implications for exposure therapy of anxiety disorders. Clin Psychol Rev. **Avoiding Toxins/Pollution:** Nedley and Ramirez; 2016. Nedley Depression Hit Hypothesis: Identifying Depression and Its Causes. Am J Lifestyle Med. [↑](#footnote-ref-15)
15. **Diet/Nutrition:** Fernstrom; 2005. Branched-chain amino acids and brain function. J Nutr. & Riebl and Davy; 2013. The Hydration Equation: Update on Water Balance and Cognitive Performance. ACSMs Health Fit J. & Benton and Donohoe; 2011. The influence of creatine supplementation on the cognitive functioning of vegetarians and omnivores. Br J Nutr. & Rathod, et al; 2016. Novel insights into the effect of vitamin B12 and omega-3 fatty acids on brain function. J Biomed Sci. & Glade and Smith; 2014. Phosphatidylserine and the human brain. Nutrition. Many brain enhancing supplements are discussed in DLE, particularly Section 4. Aging: Wahl, et al; 2016. Nutritional strategies to optimise cognitive function in the aging brain. Ageing Res Rev. **Exercise:** Gomez-Pinilla and Hillman; 2013. The Influence of Exercise on Cognitive Abilities. Compr Physiol. & Baek; 2016. Role of exercise on the brain. J Exerc Rehabil. & Stephens; 2017. Medical Yoga Therapy. Children (Basel). **Sleep:** Jessen, et al; 2015. The Glymphatic System: A Beginner's Guide. Neurochem Res. & Lovato and Lack; 2010. The effects of napping on cognitive functioning. Prog Brain Res.& Diekelmann; 2014. Sleep for cognitive enhancement. Front Syst Neurosci & Chuah, et al; 2006. The neural basis of interindividual variability in inhibitory efficiency after sleep deprivation. J Neurosci. **Routines:** Lamont, et al; 2010. Circadian rhythms and clock genes in psychotic disorders. Isr J Psychiatry Relat Sci. & Krishnan and Lyons; 2015. Synchrony and desynchrony in circadian clocks: impacts on learning and memory. Learn Mem. & Lara, et al; 2014. The Vigilance Decrement in Executive Function Is Attenuated When Individual Chronotypes Perform at Their Optimal Time of Day. PLoS One. **Stress Resilience/Management:** McEwn and Morrison; 2013. Brain On Stress: Vulnerability and Plasticity of the Prefrontal Cortex Over the Life Course. Neuron. & Stough, et al; 2011. The effect of 90-day administration of a high dose vitamin B-complex on work stress. Hum Psychopharmacol. & Lazar et al, 2005. Meditation Experience is Associated With Increased Cortical Thickness, Neuroreport. & Khalsa; 2015. Stress, Meditation, and Alzheimer’s Disease Prevention: Where The Evidence Stands. J Alzheimers Dis. & Rees, et al; 2015. Understanding individual resilience in the workplace: the international collaboration of workforce resilience model. Front Psychol. & Kent, et al; 2015. Goal-Directed Resilience in Training (GRIT): A Biopsychosocial Model of Self-Regulation, Executive Functions, and Personal Growth (Eudaimonia) in Evocative Contexts of PTSD, Obesity, and Chronic Pain. Behav Sci (Basel).& Bratman, et al. 2015. The benefits of nature experience: Improved affect and cognition. Landscape and Urban Planning. **Avoiding Toxins/Pollution:** Genius and Kelln; 2015. Toxicant Exposure and Bioaccumulation: A Common and Potentially Reversible Cause of Cognitive Dysfunction and Dementia. Behav Neurol. & Abernathy, et al; 2010. Alcohol and the Prefrontal Cortex. Int Rev Neurobiol. [↑](#footnote-ref-16)
16. This is discussed and demonstrated in many articles as well as DLE. [↑](#footnote-ref-17)
17. Nouchi, et al; 2013. Brain training game boosts executive functions, working memory and processing speed in the young adults: a randomized controlled trial. PLoS One. & Working Memory Training on Wikipedia. & Green and Bavelier; 2008. Exercising Your Brain: A Review of Human Brain Plasticity and Training-Induced Learning. Psychol Aging. & Recognized Companies: Luminosity, MyNeuroGym, and Happify. The younger these exercises and complementary techniques are utilized, the greater the results: Alloway and Alloway; 2010. Investigating the predictive roles of working memory and IQ in academic attainment. J Exp Child Psychol. & Alloway, 2010. Improving Working Memory: Supporting Students' Learning. & PFC training in preschool proved more valuable to future success than having a high IQ and reading skills at this age: Adele Diamond et al. Preschool Program Improves Cognitive Control. Science. & Appendix A and Section 3 of DLE. [↑](#footnote-ref-18)
18. Chaieb, et al; 2015. Auditory beat stimulation and its effects on cognition and mood states. Front Psychiatry. & Brainwave Entrainment on Wikipedia. & Chapter 22 of DLE. [↑](#footnote-ref-19)
19. A major focus in my book titled Inner and Outer Success: The Best of Conventional Self-Help with New Energy Psychology Techniques. & Chapter 25 of DLE. [↑](#footnote-ref-20)
20. Gary; 2010. Venus on Fire Mars on Ice. & Brizendine; 2011. The Male Brain. & Brizendine; 2007. The Female. & McGraw; 2001. Relationship Rescue. [↑](#footnote-ref-21)
21. Overton and Lowry; 2013. Conflict Management: Difficult Conversations with Difficult People. Clin Colon Rectal Surg. & See previous endnote. [↑](#footnote-ref-22)
22. Sales, et al; 2017. Epigenetic Mechanisms of Transmission of Metabolic Disease across Generations. Cell Metab. & McEwen, et al; 2015. 60 Years of Neuroendocrinology: Redefining neuroendocrinology: stress, sex and cognitive and emotional regulation. J Endocrinol. & Scovell and Ramamsamy; 2014. Should Men Take Prenatal Vitamins? Reprod Syst Sex Disord. & Skinner; 2016. Endocrine disruptors in 2015: Epigenetic transgenerational inheritance. Nat Rev Endocrinol. & Constaninof, et al; 2016. Programming of stress pathways: A transgenerational perspective. J Steroid Biochem Mol Biol. [↑](#footnote-ref-23)
23. **Benefits Studies:** Morrison and Regnault; 2016. Nutrition in Pregnancy: Optimising Maternal Diet and Fetal Adaptations to Altered Nutrient Supply. Nutrients. &The "Paracrine Effect" is the best thing about Stem Cells on Parents Guide Cord Blood website. & Reiter, et al, 2013. Melatonin and stable circadian rhythms optimize maternal, placental and fetal physiology. Human Reproduction Update. **Disease and Disorder Studies:** Monk, et al; 2016. Distress During Pregnancy: Epigenetic Regulation of Placenta Glucocorticoid-Related Genes and Fetal Neurobehavior. Am J Psychiatry. & Zucchi, et al; 2013. Maternal Stress Induces Epigenetic Signatures of Psychiatric and Neurological Diseases in the Offspring. PLoS One. & Sahoo, et al; 2015. Childhood obesity: causes and consequences. J Family Med Prim Care. [↑](#footnote-ref-24)
24. Dallaire, et al; 2006. Relation of Positive and Negative Parenting to Children’s Depressive Symptoms. J Clin Child Adolesc Psychol. & Some references in the epilogue. & The Nation’s Wealth: Assessing and Improving Child Health: Chapter 3: Influences on Children’s Health in Children’s Health on Pubmed Bookshelf website. & Miller, et al; 2013. Dietary supplements for preventing postnatal depression. Cochrane Database Syst Rev. & Farrow, et al; 2003. Symptoms of Mothers and Infants Related to Total Volatile Organic Compounds in Household Products. Archives of Environmental Health: An International Journal. & Naninck, et al; 2016. Early micronutrient supplementation protects against early stress-induced cognitive impairments. FASEB J. & Nyaradi, et al; 2013. The role of nutrition in children's neurocognitive development, from pregnancy through childhood. Front Hum Neurosci. & Mueller, et al; 2015. The infant microbiome development: mom matters. Trends Mol Med. & Viggiano, et al; 2015. Gut barrier in health and disease: focus on childhood. Eur Rev Med Pharmacol Sci. & Soliman, et al; 2014. Nutrition and pubertal development. Indian J Endocrinol Metab. & Dadvand, et al; 2015. Green spaces and cognitive development in primary schoolchildren. [↑](#footnote-ref-25)
25. I plan to write a textbook on these subjects; I have already collected many references. [↑](#footnote-ref-26)
26. See the epilogue of this article. [↑](#footnote-ref-27)
27. Recall content from paragraph 2. [↑](#footnote-ref-28)
28. Damage and Death From Toxic Chemicals Are Reaching Epidemic Levels on Dr. Mercola website. & Cozar, et al; 2017. The Arctic Ocean as a dead end for floating plastics in the North Atlantic branch of the Thermohaline Circulation. Sci Adv. & Persistent Organic Pollutant on Wikipedia. & Nieuwenhuijsen, et al; 2000. Chlorination disinfection byproducts in water and their association with adverse reproductive outcomes: a review. Occup Environ. & Maia and Moore; 2011. Plant-based insect repellents: a review of their efficacy, development and testing. Malar J. & Sunscreen Won't Prevent Skin Cancer but Some Could Actually Cause It on Dr. Mercola website. & Holgate; 2017. 'Every Breath We Take: The Lifelong Impact of Air Pollution' - A Call for Action. Clin Med (Lond). & Unuvar and Buyukgebiz; 2012. Fetal and Neonatal Endocrine Disruptors. J Clin Res Pediatr Endocrinol. & Chapter 7 and 16 of DLE. [↑](#footnote-ref-29)
29. Kasser; 2016. Materialistic Values and Goals. Annu Rev Psychol. & Kahneman and Deaton; 2010. High income improves evaluation of life but not emotional well-being. Proc Natl Acad Sci U S A. & Western and Tomaszewski; 2016. Subjective Wellbeing, Objective Wellbeing and Inequality in Australia. PLoS One. & Froh, et al; 2011. Gratitude and the Reduced Costs of Materialism in Adolescents. Journal of Happiness Studies. Review of Key Studies on Caring/Volunteering on Pursuit of Happiness website (there are several articles). & Friendship, Not Money, Makes People Happy on Dr. Mercola Website. [↑](#footnote-ref-30)
30. Schaefer, et al; 2013. Purpose in Life Predicts Better Emotional Recovery from Negative Stimuli. PLoS One. [↑](#footnote-ref-31)
31. Goldman, et al; 2013. Substantial Health and Economic Returns From Delayed Aging May Warrant A New Focus For Medical Research. Health Aff. & Myers, et al; 2015. Estimating Burden and Disease Costs of Exposure to Endocrine-Disrupting Chemicals in the European Union. The Journal of Clinical Endocrinology and Metabolism. & Diabetes Has Become One of the Most Expensive and Lethal Diseases in the World on Dr. Mercola website. & 1 in 6 Americans Are Now on Psychiatric Medication on Dr. Mercola website. [↑](#footnote-ref-32)
32. Logan, et al; 2014. Circadian rhythms and addiction: mechanistic insights and future directions. Behav Neurosci. & McClung, 2011. Circadian Rhythms and Mood Regulation: Insights from Pre-Clinical Models. Eur Neuropsychopharmacol. [↑](#footnote-ref-33)
33. Chalquist; 2009. A Look at the Ecotherapy Research Evidence. Ecopsychology. [↑](#footnote-ref-34)
34. Some references were given as Stress Resilience/Management examples above. & Appendix H of DLE. [↑](#footnote-ref-35)