The GH-Method

My Story of Chronic Diseases and Medical Research (No. 056)

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Keywords: Chronic diseases; Diabetes; Diet; Exercise

Abbreviations: PPG: postprandial plasma glucose; FPG: Fasting plasma glucose; T2D: type 2 diabetes; AI: artificial intelligence

I have dedicated 17 years to study seven different disciplines in seven universities, including applied mathematics, computer science, mechanical engineering, structural engineering, ocean engineering, biomechanics, finance, and marketing.

In addition to these institution studies, I also devoted 7 years to self-studying abnormal (traumatized) psychology and an additional 2 years on behavior psychology. This knowledge allowed me to establish five psychotherapy centers, offering support to approximately 200 abused women and children. Since 2010, I have invested approximately 26,000 hours over a span of about 9 years researching six chronic diseases: obesity, diabetes, hypertension, hyperlipidemia, cardiovascular diseases, stroke, and renal conditions, along with a focus on food nutrition. In total, I have dedicated 18 years to self-study in the realm of happiness and health.

Over my 40-year professional career, I have worked in seven major industries, including aerospace & defense, naval systems, nuclear power, earthquake engineering, computer hardware, computer software, and semiconductors. Most of my industrial experiences revolved around real and practical industrial projects, computer science and applications, and artificial intelligence (AI) related products.

Throughout my lifetime, I have had various innovations or inventions, such as the portable computer, smart printer (printer with CPU and data storage), three-dimensional computer-aided design software, as well as software robotics for commercial, scientific and medical applications.

I founded the world's leading semiconductor Artificial Intelligence (AI) design tool company, achieving the status of the highest-paid CEO, ranking first among 15,000 CEOs in Silicon Valley between 1999 and 2002. However, despite my professional success, my wealth did not contribute to my well-being; in fact, it negatively impacted my health. I faced five cardiac episodes between 1994 and 2006, which I initially attributed to business stress. In reality, it was a combination of business stress and the long-term neglect of my diabetes due to an unhealthy lifestyle.

By 2010, my ACR (Albumin-to-Creatinine Ratio) had reached 116 (with a maximum normal range of 30). Three medical doctors advised immediate insulin treatments, warning that kidney dialysis might be necessary within a short period. At the age of 63, I was informed that my life expectancy was reduced to three to five years due to the risk of kidney failure and the need for dialysis. This revelation served as a wake-up call.

In August 2010, driven by the need to save my own life, I embarked on intensive research into six chronic diseases within the field of internal medicine and the intricacies

Available online: 04 November 2023

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of food nutrition. Initially, I grappled with the complexity of the subject matter, skimming through numerous medical textbooks and poring over around 1,000 medical papers. While I could grasp the introduction and conclusion sections, the methods and results often eluded me due to the foreign terminologies of pathology and physiology and complex biomedical concepts they contained. However, my innate intelligence, previous learned knowledge, unwavering focus, sheer willpower, and unyielding persistence allowed me to gradually unravel the intricacies of the material. In 2010, I made a solemn commitment to uncover the root causes of my health issues and gain a profound understanding of my body.

Drawing upon advanced mathematics encompassing topology, partial differential equations, complex variables, and nonlinear algebra, I incorporated physics principles, including strength of materials, stress and strain relationships, optical physics, energy theory, wave theory, and signal processing, etc. Complementing this were essential engineering modeling techniques like finite element analysis, solid mechanics, viscosity, and fluid dynamics, along with cutting-edge computer science tools such as big data analytics, machine learning, and artificial intelligence (AI). This comprehensive approach enabled me to develop five distinct mathematical models, each equipped with prediction equations, thus transcending reliance on statistical tools alone:

1. Metabolism mathematical model (entire year of 2014).

2. Weight prediction model (April 2015).

3. Postprandial plasma glucose (PPG) prediction models (June 2015).

4. Fasting plasma glucose (FPG) prediction model (2016).

5. Hemoglobin A1C (HbA1C) prediction models (2016).

Through the analysis of about 300,000 metabolic data points and around 1.5 million data entries in total, all five of these prediction models have exhibited remarkable linear accuracy ranging from 95% to 99.9%. Furthermore, I was able to identify the primary influential factors and their respective contribution margins for both FPG (involving approximately five factors) and PPG (involving roughly 19 to 22 factors, most of them are secondary influential factors).

During the initial stages of my diabetes research, I received valuable support and encouragement from medical professionals. Dr. Jamie M. Nuwer, a young internal physician at Stanford Medical Clinic, not only cared for my medical conditions but also motivated me to pursue my research. In late 2016, Dr. Jeffrey Guardino, a cardiologist from Stanford Medical Center, recognized the significance of my extensive data and unique math-physical medicine approach. He encouraged me to document my diabetes research in a paper. Given my lack of formal training in biology and chemistry, I couldn't approach medicine and pharmacology in the conventional manner. Instead, I relied on my background in mathematics, physics and engineering to meticulously observe the physical phenomena resulting from biological structures and their internal chemical interactions. Subsequently, I gathered, organized, and conducted thorough analysis on the relevant data, utilizing statistics, mathematics, computer science tools, and engineering modeling techniques. Following this analysis, I endeavored to develop comprehensive mathematical models and equations to predict biomedical behaviors via outcomes, i.e. symtoms accurately. This approach mirrored my previous experiences in designing complex systems like space shuttles, naval battleships, nuclear power plants, and semiconductors. I named my approach the GH-Method: math-physical medicine (MPM).

Throughout this extensive research journey, I didn't enlist any associates or assistants; I worked in isolation for a painstaking eight years. However, by the end of 2017, it became apparent that I needed to break free from this isolation and engage with the international medical community.

My journey took a significant turn when my very first medical paper was accepted by the United Nations, World Health Organization's International Diabetes Federation during their bi-annual medical conference in Abu Dhabi in December 2017. There were only 300 papers accepted (5%) to be published from 6,000 submissions over the world. This event marked the beginning of a new chapter in my research. After working in isolation for eight years, I had little insight into the potential impact of my research, its outcomes, or its relevance to others. Encouraged by the warm reception and interest shown by diabetes research organizations and fellow scientists during the IDF 2017 conference, I resolved to emerge from my seclusion and communicate with my peers.

In 2018, I took an active step towards collaboration by participating in 26 medical conferences, presenting a total of 44 medical papers. Additionally, I authored and published 22 full-length articles in various medical journals, sharing my unique approach and findings with the medical community.

As of August 2019, I have already authored 180 papers in the past 20 months, a testament to my commitment to medical research and sharing learned knowledge. Building on the foundation of 66 presentations and publications in 2018, I have been actively engaged in disseminating my work.

These endeavors have not gone unnoticed, resulting in more than 300 invitations. These invitations extend beyond the realms of diabetes, metabolic disorders, endocrinology, and chronic diseases, encompassing over 100 non-endocrinology conferences such as Cancer, Alzheimer's, Central Nervous System, Neurology, Infectious Diseases, Oncology, Pharmacology, Toxicology, Pediatrics, Antibiotics, Vaccines, Biomedicine, Stem Cell research, Systems Biology, Liver and Pancreatic diseases, Nephrology, and Urology, among others. These non-endocrinology conferences express a keen interest in my math-physical medicine methodology. My plan for the year of 2019 includes attending approximately 30 conferences in person and presenting about 100 papers. Additionally, I aim to continue writing and publishing full-length articles in various medical journals. It is worth noting that attending these international conferences incurs significant costs, and I am grateful for the financial resources I have gained in my previous endeavors, which now allow me to allocate a portion of my fortune to meaningful humanitarian tasks, such as sharing my medical research results with others.

My mission remains steadfast: to provide assistance to diabetes patients around the world by leveraging the existing infrastructure of medical professionals, which includes research scientists, medical doctors, nutritionists, nurses, and public health personnel. This commitment is the driving force behind my prolific presentation and publication efforts across a diverse range of platforms spanning the continents of the US, Europe, the Middle East, Asia, and Australia/New Zealand.

A significant revelation during my interactions with hundreds of doctors at these conferences is that they are all dedicated, competent, and compassionate medical professionals. My mission is to leverage the existing channels and convey my concept and message of "MPM and Doctors without Distance" to reach diabetes patients in the US and worldwide. I am compelled to share my knowledge and effective methods to prevent patients from suffering complications similar to my own case or, worse, losing their lives. My objective is very clear: to spread my message and help patients.

Given my focus on preventive medicine, especially through effective and scientifically sound lifestyle management, let me share insights into my own way of life. Currently, medical and health research is not just my primary pursuit; it's my sole interest. In my view, the most important aspect of life is life itself. I firmly believe that every individual enters this world deserving a healthy and joyful existence. My daily routine involves dedicating 11 to 12 hours each day, without pause, to medical research. This commitment has spanned a continuous 9-year period. Remarkably, this work does not induce stress because I am not motivated by a quest for fame, power, or wealth, and I don't have any complications from superiors or coworkers and annoying deadlines. Consequently, my stress level hovers around a remarkable >95% satisfaction level.

Hydration is a key part of my lifestyle, as I consume 3,000 cc of water daily. I meticulously record relevant data, observing patterns related to my sleep, food intake, exercise, bowel movements, and the regularity of my daily life. I take great care to prevent illness, accidents, and exposure to infectious diseases. Regular measurements of my body weights, glucose levels, blood pressures, as well as the conditions of my lipid profile, kidneys, heart, and liver, are conducted on a daily or three-month basis. I also verifies the health status of my pancreatic beta cell function of insulin via my fasting glucose in early morning. As of July 2019, I have embarked on self-study in geriatrics and longevity, considering my current age of 72 years.

While I maintain a lifestyle that may appear unique or complicated, I place a premium on adhering to a highly regular and routine pattern. Despite frequent travel, with an average of one flight every 13 days during the past three decades, I strive to maintain an ambient temperature of approximately 22 degrees Celsius or 72 degrees Fahrenheit in different cities I visit. It is noteworthy that ambient temperature influences my glucose levels, both fasting and postprandial. On travel days, except for the challenges during flights, I work diligently to adhere to my regular diet and exercise regimen.

I maintain a consistent daily schedule that promotes my health and productivity. I go to bed between 10 to 11 pm and wake up around 6 am, ensuring I get 7 to 8 hours of restful sleep each night. I even recorded my wake-up times of night urination to know the health state of my kidneys and bladder. In the morning, I dedicate an hour to measuring and recording all necessary biomarker data, and I also catch up on the news around the world by reading newspapers.

My typical daily meal schedule includes breakfast at 8 am, lunch at 12 noon, and dinner at 6 pm. After consuming my first bite of food, I initiate a post-meal walking routine lasting around 30 to 45 minutes, during which I aim to complete 4,000 to 5,000 steps at a moderate pace, approximately 100 steps per minute. I choose safe environments for these daily walks, such as beach pathways in Hawaii and Vancouver, local parks in Northern California, underground shopping streets in Taipei and Tokyo, or inside large shopping malls like Walmart or Costco in Northern California and Las Vegas. These locations minimize the risk of accidents involving moving vehicles or tripping on uneven surfaces, which can be especially hazardous for seniors.

During my post-meal walks, I make productive use of this exercise time by engaging in various activities related to my medical research. This includes contemplating research topics, medical issues, formulating solutions, analyzing data, creating graphics, identifying patterns, writing articles, reviewing papers, learning or refreshing my past academic knowledge through YouTube videos, and conducting research on Google or Wikipedia. Consequently, my exercise time also doubles as working time, benefitting both my body and mind. I extensively use my iPhone or iPad for these tasks, with an average daily screen time of 8.5 hours, given the need for conducting research. While I am aware of the potential impact on my eyes due to age-related macular degeneration (MD), I prioritize my research needs. To mitigate excessive sitting, I have acquired a lightweight, larger-fonted iPad Pro for my reading and writing.

Recognizing the importance of post-meal exercise, I opt to reduce the amount of time spent in a seated position when possible. Additionally, I have incorporated Tai-chi into my routine to enhance balance and joint flexibility.

For individuals managing Type 2 Diabetes (T2D) who are still actively employed, one of the primary challenges lies in the "post-lunch" walk. While the timing of post-breakfast and post-dinner exercise is typically within their control, the lunchtime walk can be trickier. Fortunately, for those with standard working hours, most workplaces offer a one-hour lunch break, during which patients can allocate 20 to 30 minutes for a walk. This walk should ideally take place in an environment that provides shelter from rain, cold, or hot weather. Similar to a medical doctor, if feasible, they might consider walking and conversing with a coworker or patient. For patients experiencing joint pain, measures can be taken to reduce stress on their joints through appropriate footwear or support. I faced a foot ulcer six years ago, but with diligent management of my diabetes, this threat has diminished. I firmly believe that where there's a will, there's a way. Achieving these goals largely depends on the wisdom and determination of the patients themselves.

For severe T2D patients, a post-meal walk involving 3,000 to 4,000 steps is recommended, whereas non-severe diabetes patients should aim for 1,000 to 2,000 steps. Exercise, contributing around 35%-40% of the glucose equation, holds a slightly less significance than controlling carbohydrate and sugar intake, which accounts for around 60%-65%. Exercise is the paramount factor for burning excess energy derived from food. When surplus residual energy circulates within the body, it can harm all internal organs. Employing wave theory and energy theory, I have been able to quantify the extent of damage to arteries of the heart and brain, as well as micro-vessels within the kidney, eyes, bladder, and more, caused by lingering glucose energy associated with red blood cells which are circulating in the bloodstream throughout our entire body, except hair and nail.

I have come to understand the profound reasons behind dedicating the last 18 years to self-study and research in both psychology (9 years) and internal medicine (another 9 years). While I don't hold strong political or religious beliefs or personal positions, I firmly advocate for one fundamental human right: the right to "health, happiness, and freedom" for every individual. This, I believe, is the calling and mission of the latter part of my life.

Witnessing patients achieve glucose control and reduce their risk of life-threatening diseases through my MPM approach is the most significant and rewarding accomplishment for me.