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Abstract

Consciousness Education and Stress Transformation for Financial Anxiety:

Testing IMB Model Programs

by

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MBA, University of Phoenix, 2004

BBA, University of Washington, 2000

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Human Sciences - Health Education

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## Abstract

The purpose of this quantitative study was to investigate the relationship between four novel health behaviors and career and financial security for women and Native tribal members in North America, using the information-motivation-behavioral skills (IMB) model of behavioral change. The method of delivery was a workshop presented in seven segments, with various participants attending zero (control), three, six, or seven of the segments. Those attending more than three segments were taught four behavioral skills, while those participating in the first three segments were provided only with information education and motivation via education, related to the four behavioral skills prescribed in the Quantum Wellness Program. Participants were surveyed with quantitative tests and ordinal scale measurements, before and after each workshop segment, as well as a 2-week follow-up. Using statistical analysis, including repeated measure MANOVA, all six dependent variables revealed significant quantitative improvement over time compared to other programs seeking to promote stress transformation, consciousness education, or heart rate variability/coherence score improvements, and career or financial security. The proposed program was supported as an adequate design for teaching desired health behaviors and providing information and motivation to perform the prescribed health behaviors over time. The demographics examined for the predictability of improved dependent variables did not show significance. The independent variable, attendance of one to seven of the segments, showed those attending six segments showed significant improvement in all six dependent variables. Information and motivation to perform the prescribed health behaviors reflected improved test scores over time.

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## Dedication

This research and program development are all dedicated to my husband, Tony McNutt, who spontaneously healed from cancer, with the bivariate of western medicine intervention, directed intention groups and prayer groups for healing, all taking place simultaneously, while I wrote this paper. Tony, you turned your frequency level of consciousness and biological energy around and within days from your diagnosis, you were free of any trace of leukemia. It felt like divine intervention that the work I study on stress management related to health, wealth and happiness outcomes all contributed to us gracefully getting through the cancer journey together, along with our small family and friends, and the master intention groups I learned to rely on.

We made it through Covid lockdowns and leukemia cancer and prevention treatments as self-employed small business owners. Through the grace of staying in gratitude and maintaining our prosperity consciousness while you were not able to work normally for much of 2020 and 2021, it felt like a divine intervention that you were free of cancer and a constant flow of income showed up when we needed it, from expected and unexpected places. For your health, our wealth, and our happiness, I dedicate this dissertation to Team McNutt, our little family. Together, we are one, eternally entangled.

## Acknowledgments

I would like to acknowledge my sister, Dr. LauraMaery Gold, PhD, along with my husband, for believing in me from the beginning of this PhD journey. I would also like to acknowledge my committee members for supporting my efforts to design and complete the research for this study. I thank the instructors of the Quantum Wellness Program - which was examined in this study- for their contributions to helping people design a healthier life related to stress transformation, consciousness education, and career and financial reinvention. Finally, I thank Deborah Rozman, PhD, CEO of HeartMath Institute, LLC, and co-author of, Transforming Stress, for promoting stress transformation and healthy neurocardiology through heart rate variability and coherence awareness; Lynne McTaggart, author of books and programs related to quantum biophysics and our connection to others and all things, showing evidence we can improve our experiences from a consciously designed intention; and Colette Streicher, author of, Abundance On Demand, and producer of financial, career, and personal improvement workshops through consciousness education to become aware of our beliefs and limiting beliefs. The tools these three women promote were the basis to the Quantum Wellness Program.

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## Chapter 1: Introduction to the Study

Watch your thoughts, for they become words. Choose your words, for they become actions. Understand your actions, for they become habits. Study your habits, for they will become your character. Develop your character, for it becomes your destiny.

—Anonymous

The cost of stress—and for the purposes of this undertaking, specifically the cost of stress related to financial worries—on health, quality of life, relationships, and career satisfaction suggests the need to seek solutions. Individuals discouraged by financial stress experience low energy, decreased enthusiasm, and poorer health outcomes (Childre & Rosman, 2005; HeartMath, 2013; Lemaire et al., 2011; Low & McCraty, 2018; Williams et al., 2006).

This study proposes that by participating in the “Quantum Wellness Program: 22 Days to Easy Career and Financial Reinvention” (QW program), individuals learn tools to transform stress, gain consciousness education, and identify their financial purpose and career passion, planning a path toward undertaking paid work that matches purpose and passion. This information-motivation-behavioral (IMB) skills model-based intervention could reduce chronic financial stress (American Psychological Association [APA], 2018; Pipe et al., 2011). Chronic stress, particularly chronic financial-anxiety-related stress, has been linked to mental and physical health challenges in individuals (APA, 2018; Bauer, 2018; Elahi et al., 2018; Gunnarsdóttir et al., 2016; Richardson et al., 2017; Wei & Chen, 2014). The most recently published reports on the Stress in America survey conducted by

APA (2022) found that one in five adults feel they do not do enough to manage stress. The APA's Stress in America survey suggested that of the top stressors for all adults, in survey after survey, year after year, are work and money (APA, 2018, 2022; Centers for Disease Control and Prevention [CDC], 2020; Williams, et al., 2006). From a health science perspective, there is an abundance of reports from physicians and health science studies indicating chronic stress is at the foundation of many adverse health outcomes (Lord et al., 2018, Low & McCraty, 2018). This study tested the efficacy of a financial stress-transformation program based on the IMB skills model. The study analysis compares the relationships with three IMB constructs to other programs using only one or two constructs.

The study proposed that financial anxiety and stress-related health outcomes, as measured by quantitative surveys pre- and post-QW intervention, improves through participation in the QW workshop. In order to assess sustainability, participants were measured again at a 2-week follow-up to test the dependent variables of information and motivation. Quantum physics, defined as the study of "nature at the inanimate microlevel" (Arndt et al., 2009; Lord et al., 2018; Low & McCraty, 2018), is a factor in the program analyzed. Many scholarly works have addressed the relationship between quantum physics and biology, psychology, and health outcomes (Baumeister et al., 2018; Boly et al., 2017). In addition, workshops, and courses such as those taught by HeartMath (2013), Dispenza (2017), and Low and McCraty (2018) teach participants and readers to consciously focus on their intentions, desires, and goals to reach new levels of life satisfaction in money, relationships, health, and charity. Many programs, books, and

studies teach tools and techniques for reducing stress. Many individuals turn to substance abuse and other addictive behaviors to relieve stress (Childre & Rozman, 2005; Dispenza, 2017; McCraty, 2017). This study proposes the QW intervention as a long-lasting alternative for stress transformation, advocating mental and physical exercises, consciousness education, changed health behaviors, and improved work performance.

There are many health behavior programs related to stress management, such as meditation classes, exercise courses, and counseling to gain insight into stressors. The available programs related to financial stress through lending institutions, financial advising groups, debt counseling, and budget planning teach one construct focused only on money planning. Without stress management, stress transformation, and empowerment through intention setting and understanding the power of thoughts and emotions on the level of outcomes experienced, these financial budget and planning programs have not led to a reduction of anxiety related to money and career security.

In this study, I analyzed secondary data from a program presented to four test groups (one control, three participation groups) through the QW program designers and instructors. The workshop was designed to help women and Native tribal members of North America reinvent their careers, their health, and their quality of life through the acquisition of new skills, knowledge, and motivational lessons from a variety of constructs and a variety of authors. The QW workshop instructors agreed to allow data analysis of the pre- and post-program quantitative, anonymous data collected and blinded, from study participants, to be examined for the efficacy of their new combined QW workshop. The IMB-based program has three constructs based on information,

motivation, and behavioral skills. I tested the effects of all three constructs as they relate to career and financial anxiety, consciousness education, and stress transformation.

To test for relationships between each construct and financial anxiety improvements, as measured through pre- and post-surveys and biofeedback measures, some groups participated in one to seven segments of the triple construct program. One control group had access to the reading materials and biofeedback tools, but were not allowed to participate in the online instruction workshops, while the remaining participants opted into one to seven segments offered in the IMB-modeled programs.

The goal was to examine the benefits of the IMB model related to financial anxiety and health outcomes, compared to only one construct, such as motivation or knowledge or behavioral skills training. The results in improved health outcomes and confidence levels related to finances were compared between groups to test a causal relationship between the IMB model and improved financial security and related health outcomes.

The major sections of the introduction chapter include an introduction to the IMB Model framework, the problem statement, history, and background; the purpose of the study; significance of the study; research questions; nature of the study; limitations, challenges, and barriers of the study.

A program set up to introduce participants to a new way of viewing their power to manifest their desires, including improved health, financial security, and a basic understanding of consciousness and the field of potentiality, was conducted. I examined the benefits of the QW intervention. The program was designed after the IMB theoretical



model design. The quantitative analysis evaluates the IMB theory and the variables of the QW program, postulating that more people would be confident and successful if they had the right combination of knowledge, motivation, and behavioral skills practice to manifest a passion-based life.

The participants completed the program with new information, motivation, behavioral skills practice, and a passion-based career plan with action steps to enhance their career or become business owners with a purpose. Health science research shows that many adults experience chronic stress related to finance and career anxiety. The rates of reported stress over money and jobs or careers increase yearly (APA, 2018, 2022; CDC, 2020; Office of Disease Prevention and Health Promotion [ODPHP], n.d.). This QW program addresses working-aged adults with self-reported chronic stress over money and careers. It may even help individuals who have crawled out of near-bankruptcy live prosperous and joyful lives. In conducting this study, I was interested in finding a program that teaches people how to design a business, understand the power of setting intentions, be empowered through an understanding of consciousness and the power of our thoughts and emotions, and discover their passion for gaining direction for a career they are motivated by. The hypothesis was that these combined workshops would show a possible correlation between health outcomes measured by participants' self-reported stress and energetic levels before and after each workshop. The desire of this study, and the program, was to help people gain new skills to avoid the pain and fear of near-bankruptcy, the worry about financial insecurity, the dread of an unmotivating job, and adverse health outcomes related to chronic stress and low levels of life satisfaction.

### **Introduction to IMB Study Framework**

The W. A. Fisher et al. (2003) IMB model provided the basis for the program examined for this quantitative research analysis. This model has been used to examine the effects of providing information and education, personal and social motivations, and behavioral skills to participants. The model originated as a tool for medical applications in HIV prevention and education to understand the effects of HIV health risk awareness education and motivation, along with access to condoms as a behavioral skill provided (W. A. Fisher et al., 2003). Breast cancer education using the IMB design for the program promotes self-examination, tests the health promotion of breast cancer education, motivates awareness of risks, and how to self-examine as a behavioral skill. This analysis of the IMB finance program is a proper tool for measuring the benefits of consciousness education, financial wellness education, stress-risk awareness as motivation, and stress-transformation tools for behavioral skills to test for improved health behaviors over time.

Stress correlates with many health challenges (CDC, 2020; Childre & Rozman, 2005; McCraty, 2017). Stress from many sources, such as health, career insecurity, financial scarcity, family needs, work and personal relationship challenges, and more, is rising yearly (APA, 2022, CDC, 2020; ODPHP, n.d.). Of all sources of stress, career and financial security top the list for working-aged women and Native tribal members of the United States (APA, 2022; ODPHP, n.d.). Chronic career and financial stress continue to increase year after year in the United States and North America (APA, 2022; CDC, 2020; ODPHP, n.d.), with adverse health and low quality of life measures increasing relative to the experienced stress levels (APA, 2022; McCraty, 2017). In particular, habitual, chronic

financial and career anxiety is worrisome. Habitual high stress levels are associated with psychological, social, and health consequences (Childre & Rozman, 2005; McCraty, 2017). Working-aged adults reporting chronic stress are often also ill or depressed, which may correlate with multiple diagnoses related to habitual high-stress levels compared to working-aged adults who are not chronically stressed (Childre & Martin, 2000; McCraty, 2017).

Healthy states of the consciousness-scale daily average scores, stress-transformation practices, and passion-based career activity are among the basic elements for personal and financial health measures related to career- and financial-stress-transformation. A persistent reflection is reported year after year, while personal and financial health practices have rarely been followed over the years, as reflected by continually rising stress related to money and career security (APA, 2022; CDC, 2020; ODPHP, n.d.; McCraty, 2017). Chronic career and financial anxiety continue to grow yearly, nearing a level equal to an epidemic, creating a challenge when the factors are complex. Addressing persistent, chronic career and financial anxiety require a multidisciplinary approach (APA, 2022; CDC, 2020). A return to the basics of healthy personal and financial well-being practices is necessary to address the rising chronic career and financial anxiety epidemic. Modifying behaviors to adopt healthy personal and financial stress transformation, consciousness education, and heart rate variability biofeedback practice presents a way to help individuals and workplace environments, communities, and global health.

Childre and Rozman (2005) state that unhealthy, habitually low states of consciousness daily average rates and a lack of passion-based career plans for working-aged adults are primary causes of the chronic career and financial anxiety epidemic. Current efforts to reduce working-age adults' chronic career and financial anxiety have resulted in modest and mixed results (APA, 2022; Childre & Rozman, 2005). It seems necessary to design programs from a new methodology that would efficiently provide results of improved health measures and life-satisfaction experiences for working-age adults with chronic career and financial anxiety. In this study analysis, I examined whether healthy states of consciousness scale daily averages, stress transformation practices, healthy heart rate variability and related coherence rates, combined with passion-based career activity, are effectively adopted by working-age adults by incorporating constructs of the IMB model.

### **Problem Statement**

Chronic stress, particularly chronic career- and financial-anxiety-related stress, has been linked to mental and physical health challenges in individuals (Bauer, 2018, Dijkstra et al., 2018). Studies have linked negative health measures, including heart disease, cancer, high blood pressure, depression, and low quality of life, to work-related stress, low work morale, and missed work (La Torre et al., 2019). Financial anxiety is linked to adverse health measures in both adults and their children, based on a recent study testing the basis of stress related to work-family conflict correlated with employees' financial insecurity and health (Childre & Rozman, 2005; Odle-Dussear et al., 2018). Linking stress to reduced health and financial resources was tested in these

published studies. The test results reflected increased financial stress and increased health-related stress outcomes increase when financial and career security are low (Tibbetts & Lutter, 2019). These studies provide supportive evidence that stress is a health risk and financial stress is a common source of stress-related adverse health outcomes.

Stress transformation tools and techniques, including consciousness training, meditation practices, and heart-brain coherence biomedical feedback tools, have been tested to show a significant reduction of stress levels related to mental and physical health, improved work attitudes, and improved personal and family relationship health (Childre & Rozman, 2005; Dijkstra et al., 2017, McCraty, 2017). Few published research studies have addressed potential solutions to improve career and financial stress using these same tools and techniques. Recent scientific and technological breakthroughs have revealed health benefits to understanding the field of consciousness to improve general physical and mental well-being (Chopra & Kafatos, 2017). Studies have revealed an association between the health benefits of education on the subjects of states of consciousness and electromagnetic field attraction through habitual thoughts and beliefs as directly benefiting many mental and physical stress-related health measures (Baumeister et al., 2018). Scientific biofeedback tools have been used to study the benefits of coherent heart-brain-pulse rates, resulting in increased energy, mental clarity, many improved health measures related to stress, and overall improved attitudes toward life, work, and relationships (Dijkstra et al., 2018). Considering the risks of stress, including stress related to financial anxiety, providing health education, and promoting

stress transformation to lower stress, leads to social changes that benefit individuals, families, and communities. With a continued focus on health education, analyzing these tools to reduce stress related to financial anxiety measurements as a gap in research supports this focus as meaningful to potential community health benefits.

Working-age adults' chronic career and financial anxiety is a challenging and costly health concern in the United States (APA, 2018, 2022; CDC, 2020; ODPHP, n.d.). Chronic career and financial anxiety prevalence has increased over the years (APA, 2022). The Healthy People 2030 report by the ODPHP (n.d.) indicated that chronic career and financial anxiety is a primary and underlying source of health challenges, supporting the goal to reduce chronic career and financial anxiety within the desired outcomes of HP 2020 (Kamik & Kanekar, 2012). Nearly 52% of working-age adults in the United States report chronically elevated stress levels, including career and financial anxiety (CDC, 2020; ODPHP, n.d.). Many U.S. working-age adults report continuous stress over money, career security, and related adverse health challenges (APA, 2022). Overall, the high prevalence of stress experienced by working-age adults has significant economic challenges for national healthcare costs and resources.

Social, psychological, and health challenges correlate with chronic career and financial anxiety among working-aged adults (Childre & Rozman, 2005). Working-aged adults experiencing chronic career and financial anxiety, record chaotic heart rate variability patterns, incoherent general stress beliefs, perceptions and reactions, all associated with increased risk of heart and blood diseases, hypertension, cancers, respiratory constrictions, musculoskeletal and joint pain, excess weight retention, and a

variety of mental diseases (Childre & Rozman, 2005; McCraty, 2017). In addition, chronic career and financial anxiety experienced by working-age adults could develop behaviors that impact their work performance, energy levels, motivation, clarity, creativity, self-esteem, drive, altruism, relationships, and social life. Working-age adults' chronic career and financial anxiety can lead to depression and other neuronal and mental challenges (Childre & Rozman, 2005), leading to additional career and financial insecurity. Working-age adults' chronic career and financial anxiety correlate with increased risk of heart disease, strokes, hunger, homelessness, reduced work participation, and mental challenges (Childre & Rozman, 2005; McCraty, 2017). Chronic career and financial anxiety can lead to economic challenges related to missed work and health costs, reducing life satisfaction, quality, and security among working-age adults.

Working-age adults' chronic career and financial anxiety can cause sizeable economic pressure on the patient and the healthcare system (CDC, 2020; Childre & Rozman, 2005). The estimated direct costs of working-age adults' chronic career and financial anxiety, including all health-related costs, missed work, unemployment costs, and possible long-term disability costs for otherwise working-age adults, are in the billions each year (CDC, 2020). Additionally, working-age adults' chronic career and financial anxiety are likely to be carried on to adult children of those habitually concerned about career and money (Childre & Rozman, 2005). Working-age adults' chronic career and financial anxiety may even reduce the average lifetime for people experiencing these challenges, especially during significant recessions and depressions. Adults in North America who experience chronic career and financial anxiety are

estimated to pay over \$6 billion extra in medical costs over a lifetime (CDC, 2020; Childre & Rozman, 2005). Chronic career and financial anxiety impacts by way of stress-related health decline, creating a reduction in the labor market and increasing national healthcare costs continue to worsen. They can significantly impact the United States year after year (CDC, 2020).

Some programs and policies, using a variety of approaches, have been used to prevent working-age adults' chronic career and financial anxiety, including educational programs, policies, and economic assistance changes (ODPHP, n.d.). For example, nonprofit organizations and the Small Business Administration (SBA, n.d.) participate in the U.S. Department of Health and Human Services (HHS) financial and health assistant programs have loans and grants for personal and career needs, education, promotion, and business planning assistance. Health and financial assistance programs have gradually increased to design outreach and career planning, which keep working-age adults moderately assisted for at least half of the reported stress-related areas of need. Recommendations to replace the unemployed, potential workforce with training and loan assistance for career and business development, such as women and minority programs, through grant opportunities and mentoring programs, have been offered through the SBA. The HHS designs policies and opportunities to increase the number of health promotion counselors with access to skill training and improved qualifications to meet the growing stress-related health challenges. These health promotion counselor training programs focus on single ways of addressing chronic career and financial anxiety. They use either mental health or stress management information—which may be ineffective in reducing



working-age adults' chronic career and financial stress experiences (Williams et al., 2013), and overall working-age adults' chronic career and financial anxiety remains high (CDC, 2020; ODPHP, n.d.).

Intervention programs, in-person and online, offer different modalities for behavioral skills practice and have been created as a more accessible and flexible choice for working-age adults. Millions of working-age adults participate in health improvement or career development programs. An estimated 19 million would participate in health improvement and career development programs if they were available online, flexible, and affordable (APA, 2020). Studies suggest chronic career and financial anxiety prevention programs in online, flexible, behavioral skills practice settings could provide an outlet to improve working-age adults' chronic career and financial anxiety epidemic. For example, the SBA and local organizations could combine efforts so participants could receive counseling, personal well-being practices, and business planning opportunities. These accessible business and behavioral skills practice programs are offered year-round through the SBA, Employment Security Department (ESD), and various charity organizations for women and through tribal member behavioral health department services for most Native tribal members in the United States (ESD, n.d.; NisquallyTribe.org, n.d.; SBA.com, n.d.). Even if results only lead to a reduction of stress, while not necessarily statistically significant, a reduction of stress-related health measures and career and financial security improvements might result from program students. Mixed or modest results have come from similar programs (ESD, n.d.; NisquallyTribe.org, n.d.; SBA.com, n.d.). Consideration of multiple factors leading to

chronic career and financial anxiety status might help to design more effective programs accessible online, flexible, behavioral skills practice settings, free or economically accessible for working-age people already concerned about time and money.

Many career- and financial-stress-transformation workshops and programs do not use behavioral model theories in their design. Some programs are based on the transtheoretical model, the precede/proceed behavioral model, and the social cognitive theory (SCT) to design and implement career- and financial-stress-transformation programs (Alexander et al., 2017; McCraty & Deyhle, 2016). Most programs designed for career and financial stress transformation programs to improve health behaviors are based on the SCT. However, costs, time, and accessibility challenges have been encountered when designing online, flexible behavioral skills practice workshops using behavioral theory models, as reflected in the challenges in implementing complex training skills, information, or education consistently over different programs. With so many aspects to consider when designing career- and financial-stress-transformation programs, add to the challenges of designing programs based on behavioral theory models. Many theoretical framework designs include various constructs of one theory or model of behavior change programs.

An example is the SCT, which tends to place a greater emphasis on self-efficacy over outcomes of the program or identifying expectations in this model (Branscum & Sharma, 2012). Because of the complexity and comprehensiveness of behavioral theories, many programs designed on these models create such variability using multiple theoretical constructs in various personal and business health and behavioral skills

practice programs. With so many constructs and various approaches in designing programs, this possibly leads to the inconsistent success of desired outcomes in career- and financial-stress-transformation programs.

It is not easy to compare different business and personal stress-reduction in-person and online flexible behavioral skills practice workshops due to the various approaches and constructs used in different theoretical designs. There is a lack of consistency when comparing different business and personal stress-reduction in-person and online, flexible, behavioral skills practice program studies. An example is minimizing stress levels as the primary outcome, whereas other programs focus only on business planning activity as the program's goal (McCraty, 2017; SBA, n.d.). Many programs seek to promote the same outcome, while the behavioral model programs' design varies greatly. In some programs, the definition of minimized stress levels varies; some workshops incorporate career and business plan activities to last one day, while others recommend positive business action steps for 60 minutes daily for working-age adults. The inconsistent constructs and various tools and techniques used to achieve improved behaviors, including improved stress levels, create a challenge when comparing different business and personal stress-reduction in-person and online, flexible, behavioral skills practice programs.

There are both single and multicomponent health behavior interventions in the literature reports regarding different business and personal stress-reduction in-person and career- and financial-stress-transformation programs. Stress management and positive career activity aspects, coupled with enhancing states of consciousness strategies such as

HeartMath biofeedback tool usage to improve self-confidence and participation activity, represent multi-component programs. Using only one of these interventions would represent a single-component strategy, promoting only stress-management activity, increasing daily averages of states of consciousness, or improving career-related skills as the education goal. Low and McCraty (2018) conducted a systematic review, suggesting different business and personal stress-reduction, in-person and online, flexible, behavioral skills practice workshops, using a combination of stress transformation, consciousness education, business design plans, and practice of new behavioral skills would likely result in more significant results of desired outcomes. Stress transformation, raising conscious states scores, coherence and heart rate variability practices, and business counseling engagement, compared in a meta-analysis and systemic reviews, have reflected the most effective programs (Childre & Rozman, 2005; McCraty, 2017). Using multicomponent constructs in interventions, as reflected in systematic reviews with strong methodological critiques, shows more robust results consistently over single-construct programs reviewed.

Business development components using motivation, psychological constructs, and behavioral skills are shown to improve chronic career and financial anxiety status but are not always integrated with business and personal stress-reduction in-person and online, flexible behavioral skills practice programs (Bauer, 2018; Childre & Rozman, 2005; Low & McCraty, 2018; McCraty, 2017). Some reviewed programs resulted in inconsistent and minimal effects by leaving out important factors in chronic career and financial anxiety intervention programs. One example is an SCT model for an online,

flexible, behavioral skills practice program aiming to increase personal health activity and healthy states of consciousness by emphasizing self-efficacy constructs, social norm perceptions, and healthy personal career action step measures. Analysis of this program reflected a statistically significant improvement in stress levels and regular personal healthy career activity, and no measurable self-efficacy improvements or social norm perceptions (Low & McCraty, 2018). Some business and personal stress-reduction, in-person and online, flexible, behavioral skills practice programs lacking general health and business development promotion also result in mixed or modest results (Childre & Rozman, 2005; Williams et al., 2013). There is a need for a career- and financial-stress-transformation workshop for working-age adults' experiencing chronic career and financial anxiety using causal pathways and measurable factors to determine the efficacy of incorporated theoretical constructs.

More approaches to programs designed to increase the effectiveness of career- and financial stress transformation should be explored. Using any of the behavioral intervention theories to change health behaviors to design measurable pathways of causation for best behavior changes, healthy states of consciousness, increased biological coherence practices, stress-transformation tools, and passion-based career activity could lead to the creation and implementation of career- and financial-stress-transformation programs for working-age adults should be designed.

## **Background**

The second chapter reviews selected literature from books and articles relating to stress-related health risks, stress transformation tools and education, stress reduction, financial and career-related stress studies, and consciousness education.

Working-age adults' chronic career and financial anxiety present significant underlying health challenges in the United States (APA, 2022). Next, the literature review chapter reviews national prevalence and incidence statistics related to working-age adults' chronic career and financial anxiety. As well, working-age adults' chronic career and financial anxiety statistics for the United States, with particular attention to the statistics related to Native Americans, were analyzed, given that the data, in the final analysis, was collected in North America. The background section on the IMB model includes the economic burden of working-age adults' chronic careers, financial anxiety, and the risk factors associated with chronic stress from the policy goals and measures outlined in the HP 2030 report (ODPHP, n.d.).

Working-age adults' chronic career and financial anxiety as a national health and labor shortage crisis have immensely transformed the healthcare for working-age adults. Working-age adults with chronic career and financial anxiety run an increased risk of heart disease, certain cancers, mental disorders, and hypertension (Childre & Rozman, 2005). Working-age adults who are depressed or experience chronic career and financial anxiety have higher medical costs and related intervention expenses and depend on healthcare services more often (CDC, 2020). Health economists believe that addressing working-age adults' chronic career and financial anxiety could reduce the burden on

healthcare systems (APA, 2018; ODPHP, n.d.). Influential career- and financial-stress-transformation programs aimed at the prevention and reduction of chronic career and financial anxiety could significantly reduce costs to healthcare generated from working-age adults' chronic career and financial anxiety is included in the review section.

Reduced quality of life is reported in working-age adults experiencing chronic career and financial anxiety. The primary goal of HP 2020 is to improve the nation's health and improve the quality of life in the United States by increasing interventions to reduce stress to improve health and quality of life. The objectives of HP 2020 aim to reduce working-age adults' stress by improving programs for stress transformation and constructs for raising states of consciousness (CDC, 2020; ODPHP, n.d.). HP 2020 objectives were not met, so the program was modified to HP 2030 (ODPHP, n.d.). By focusing on the goals of the revised HP 2030, this study may offer a potential causal identifying construct for promoting health through reduced stress levels, raising consciousness, and introducing behavioral skills for participants of the QW program. This health promotion intervention could effectively prevent and reduce working-age adults' chronic career and financial anxiety. Thus, HP 2030 goals and objectives related to working-age adults' chronic career and financial anxiety are also discussed.

### **Purpose of This Study**

The purpose of this quantitative study was to examine the health benefits of stress-reducing tools, techniques, information, and motivation and their effects on stress-reducing health behavior performance. Secondary data was used to examine correlations and potential causal pathways of this information, motivation, and new health behaviors,

separately and combined, related to stress-transforming health behavior. This project is unique because it addressed financial anxiety-related stress challenges and tested for possible solutions for that topic while building on studies showing the general benefits of stress reduction. This research aimed to examine the utility of the IMB model for designing career- and financial-stress-transformation programs in working-aged adults in North America. SCT is the most common model for designing chronic career and financial anxiety prevention programs. Behavioral choice theory, the social learning theory, the theory of planned behavior, organizational change theory, the social ecological model, Pender's health promotion model, and other theoretical models have been used for stress-reduction interventions and chronic career and financial anxiety prevention programs (APA, 2018; Bradford et al., n.d.; McCraty 2017). Perhaps a consensus can be reached through this program study on the effectiveness of stress-reduction programs and online, flexible, behavioral skills practice or other chronic career and financial anxiety prevention programs.

### **Significance of the Study**

The significance of this study in analyzing health promotion programs may provide quantitative support for tested tools, techniques, education, and motivation of financial anxiety-related stress reduction skills. Many studies have been conducted on stress-related diseases and other health challenges, leaning on medical solutions for cures. If these tools and techniques provide the reduction of chronic stress from financial and career insecurities, based on the significant rate of people reporting money and job concerns as their highest source of stress (Bauer, 2018; La Torre et al., 2019; Odle-



Dussear et al., 2018; Tibbetts & Lutter, 2019), this IMB program may lead to improved financial and career anxiety-related stress relief for populations worldwide, positively impacting positive social change.

## **Research Questions and Hypotheses**

### **Research Question 1**

To what extent do the constructs of this IMB skills model explain health behavior changes in four measured areas, (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily?

### ***Null Hypotheses***

- *Null Hypothesis 1a.* IMB variables will not be most influential in the improvement of (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily, compared to independent variables.
- *Null Hypothesis 1b.* The IMB will not explain a significant amount of variance in (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily greater than or equal to what is reported in the literature.

- *Null Hypothesis 1c.* Those who acquire more information understanding, are well motivated, and acquire behavioral skills will not be more likely to improve in (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily, compared to those who are less motivated or less understanding of the information presented in the QW program.

### ***Test Hypotheses***

- *Test Hypothesis 1a.* IMB variables will be most influential in the improvement of (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily compared to independent variables.
- *Test Hypothesis 1b.* The IMB will explain a significant amount of variance in (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily, greater than or equal to what is reported in the literature.
- *Test Hypothesis 1c.* Those who acquire more information understanding, are well motivated, and acquire behavioral skills will be more likely to improve in (a) daily average hertz score on states of consciousness graph

(electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily compared to those who are less motivated or less understanding of the information presented in the QW program.

### **Research Question 2**

Are the improvements in the dependent variables motivation and information understanding sustainable at the 2-week follow-up?

#### ***Null Hypothesis***

*Hypothesis 2.* The improvement in motivation and information understanding will not be sustainable at the 2-week follow-up.

#### ***Test Hypothesis***

*Hypothesis 2.* The improvement in motivation and information understanding will be sustainable at the 2-week follow-up.

### **Nature of the Study**

In this study, I analyzed quantitative secondary data, measuring the effects of education, motivation, and skills offered to test and control groups to evaluate the benefits of financial and career insecurities and stress-related health measurements. Using the IMB model, the study design may help to understand the relationship between the three constructs provided to reduce stress and financial anxiety.

### **Limitations, Challenges, and Barriers**

A potential barrier was Institutional Review Board (IRB) approval for this study of peer-led stress-reducing courses to test for health behavior changes before and after

each program. The IRB approval number for this study is 07-06-23-0975269. There were also eight separate groups to collect and analyze data from, so keeping all data confidential and organized was critical.

Participants selecting segments for the intervention and control groups were self-selected and hopefully represent a randomized study representing North America's population of working-aged women and Native tribal members. Without this random selection, the study would be subject to multiple biases. Confounding could occur if there is a common factor related to both choice of the intervention group and the outcome of focus. Bias in selection may result if selecting participants into intervention and control groups, or follow-up is related to the outcome of interest. Information bias may occur when there is differential misclassification in outcomes related to intervention status (Glantz et al., 2009).

The comparison of different career- and financial-stress-transformation workshops and programs analyzed in this study present a variety of theoretical constructs in their unique designs along with various approaches to measure outcomes for stress-reduction and consciousness-raising programs and online, flexible, behavioral skills practice programs. Using secondary data from the QW program study of focus, some limitations may be inherent to the secondary data reviewed, such as a lack of decisive factors captured in the collected data.

### **Summary**

The studies reviewed for the purpose of this dissertation have not led to a conclusive pathway to reduce stress related to career and finances, and the reduction of

negative health from chronic stress. The gap in examined programs and outcomes to address chronic career and financial security, compared to the IMB program examined in this analysis, is the support in conducting this study. The aim of this analysis was to examine possible solutions and causal pathways to both improved health related to chronic stress, and financial and career security improvements.

The next chapter examines a variety of recent behavioral health studies and the history of the primary theoretical IMB model used to design the workshops in the study being examined in this study.

## Chapter 2: Literature Review

The early stages of chronic stress present the preferred target period for health intervention programs to reduce and affect stress-related negative health measures and cardiovascular diseases. Working-aged adults have replaced passion-based career and financial health activities with scarcity perspectives and excuses to avoid productive steps or disempowering choices to stay stressfully focused on career and financial worries. Scarcity perspectives and limited self-efficacy views are associated with higher cortisol and adrenaline hormone imbalance, reduced heart and mind health, reduced memory and clarity of thought, reduced creativity, fear of shortages, anxiety around work and money, and depressed energy and perspectives. Procrastination, confusion, fear, depression, and lack of action toward health, career, and financial goal-oriented activities are associated with chaotic heart rate variability, lower states of consciousness, and higher muscular tension (Bradford et al., n.d.; Childre & Rozman, 2005).

With perceived personal and social support as a primary factor in the motivation construct, if family, friends, coworkers, and the community help reinforce the participating women and Native tribal members to practice stress-transformation tools and techniques, remind them to investigate their habitual beliefs about money and career scarcity, or help them access helpful biofeedback tools, this may add to the participant practicing the new health behaviors prescribed in the QW program. These are ways social support groups can help those challenged with fear of money or careers gain mental and physical coherence, increased energy for peak work performance, and transform stressful perceptions about money or careers. This social support could include celebrating the

passion-based action steps plan to live a life of service or purpose and meaning. The HeartMath Research Institute promotes intervention programs for children, working-age adults, veterans, and first-responders in person and online settings (Childre & Rozman, 2005; Richardson et al., 2017).

Consciousness education and stress-transformation for career and financial health programs designed and implemented to transform stress and adverse health measures among working-aged adults in the United States have been created and provided in various ways and modalities. These programs could encourage participants to follow their passion-based career for higher health and life satisfaction, perhaps charitable activity. It is challenging to implement consciousness education, stress transformation, and passion-based career activity programs for working-age people with heavy work hours and other demands of family and friends (McCraty, 2017; Childre & Rozman, 2005). Therefore, the need to promote online programs for financial health highlights the flexibility needed for working-aged adult participation, particularly for women and minority organizations to help fund these programs (Childre & Martin, 2012; McCraty, 2017; Richardson et al., 2017; Wei & Chen, 2014).

Consciousness education, stress-transformation, and passion-based career and financial health flexible online workshops have been presented as an alternative to in-person programs or programs only presented during work days. These alternative and more flexible online programs and other programs analyzed present mixed results (Elahi et al., 2018; Streicher, 2017), which may be primarily due to various constructs, methods of measuring outcomes, and using various theoretical models for behavioral changes.

Some stress-management, consciousness-raising, and career- and financial-stress-transformation programs are based on theories, and some only allude to theoretical constructs found in various behavior change models. Stress transformation, consciousness education, and career- and financial-stress-intervention programs use various constructs associated with different behavioral models. There is a challenge in the consistency of best constructs for these intervention programs. In seeking a behavioral theory model designed to be comprehensive but simple, the IMB model was used to design the QW program analyzed in this study. By seeking out efficient ways to present complex structures, the design for the QW program used the IMB model to implement flexible, online, personal career and financial health programs to reduce stress-related adverse health measures, lack of productivity, and creativity, to improve career and financial security.

Different strategies used to implement stress reduction, consciousness education, and career- and financial-stress-transformation programs in online, flexible, and behavioral skills practices included in this literature review compare the outcomes of various studies for the measures of desired outcomes met or not met. Looking for deficits in behavioral theory programs is included for improved development of future programs. The program design of the IMB skills model in addressing weaknesses of comparative programs is presented for comparisons of similar construct focus of interest when analyzing other standard behavioral theoretical model designs. A discussion reviewing the application of the IMB model to design the QW program and others like it is discussed in this chapter.



The keywords searched were stress management, stress and health, stress education, financial stress, career anxiety, consciousness education, consciousness studies, zero-point field, vagus nervous system, hormonal systems, neuro network training, biofeedback stress-reduction tools, IMB model, precede/proceed model, transtheoretical model (TTM), Social Cognitive Theory (SCT), and behavioral skills. I conducted literature searches in Google Scholar and Walden databases PubMed, Embase, and CINAHL & MEDLINE Combined Search. Literature from conception of the IMB model (1999) through current date are included in the literature review.

### **Strategies Used for Stress Transformation, Consciousness Education, Career Reinvention Programs**

Some theories used to design career- and financial-stress-transformation programs include the transtheoretical model, precede/proceed model, SCT, and the IMB model. Other programs on the same subjects do not use these individual models in their design. The review of the models and strategies used in the examination suggests the SCT as the primary theory used in designing stress-management, consciousness education, and career reinvention programs for implementing improved health-promoting behaviors. Some strategies used online and flexible behavioral skills practice for chronic career and financial anxiety programs (HeartMath, n.d.). Other strategies use in-person workshops, at-work interventions, and group-based programs to improve stress levels, raise consciousness, and increase career and financial security.

The variation of strategies used with behavioral theory models or lack of use creates a limited ability to compare benefits between different constructs in the program

designs or the comparison of goals met from the analyzed programs. These programs use strategies, constructs, and goals to seek common outcomes.

The designers of the QW program determined the IMB model as a promising approach to reduce the deficits presented with other models for chronic career and financial anxiety prevention, online, flexible programs with behavioral skills practice settings. The IMB model includes three constructs, information, motivation, and behavioral skills, to allow for a potential causal pathway between these three constructs. The IMB model has been used to impact adherence to prescribed medical plans, improved dietary outcomes, increased practice of healthier behaviors from self-examination cancer prevention, motorcycle helmet use, and condom use among sexually active adult participants of IMB programs (Chang et al., 2014; W. A. Fisher et al., 2003; Osborn et al., 2010).

Education is the focus of the first construct of information. Education is limited in increasing coherence score improvements, healthy states of consciousness scale daily averages, stress-transformation programs, and other behavioral theory-modeled programs reviewed (Chang et al., 2014; W. A. Fisher et al., 2003). Reviewing other strategies to design programs emphasizing education or information as the primary construct suggests chronic stress management is slightly improved during program participation when related to knowledge levels about heart rate variability and coherence score improvements (HeartMath, n.d.; McCraty, 2017). The IMB model suggests that knowledge alone may correlate with health-related behavior changes if the desired behavior is simple and easily adhered to. The IMB Skills model suggests knowledge may

mediate motivation and potentially improve daily stress-transformation practices or other health behaviors promoted when mediated by simple health behavior adherence promotions. It is interesting to note that specific target populations may find knowledge essential, as shown in various IMB model programs (W. A. Fisher et al., 2003). Stress-transformation online programs and consciousness-raising workshops focused on information rarely result in behavioral changes (W. A. Fisher et al., 2003).

Information and motivation in the IMB model are important constructs that mediate information in various IMB programs analyzed. W. A. Fisher et al. (2003) designed the IMB model to include intrinsic and extrinsic motivation as a causal factor leading to changed health behaviors. For the working-age female population, rewards and group coherence score participation effectively influence motivation (Richardson et al., 2017; Tibbetts & Lutter, 2019). In addition, instructors' electronic continued check-in and support notices greatly influence the adherence of desired healthy behaviors (Low & McCraty, 2018). In one study using the HeartMath approach (Burch et al., 2018), the study's authors designed to improve study participants' self-regulation and psychosocial well-being, participants with active instructor contact are twice as likely to practice stress-transformation techniques compared to participants without interactive instructor follow-up. Participants with accountability follow-up instructor support or peer-member continuous group practices are 4.4 times more likely to practice stress-transformation techniques than participants not connected with any ongoing external support (Low & McCraty, 2018). Participants' misperceptions about average daily consciousness scale rating or coherence practices could result in a minimized attitude toward starting new

habits for improved stress-related health measures. Burch et al. (2018) concluded that in their pilot study to improve heart rate variability and coherence patterns with those not using the biofeedback training tool for improved coherence, the participants misperceived their average coherence scores as being healthy. Participants' misperception of stress management coherence averages is a primary indicator of no improvement in heart rate variability and coherence ratios (Burch et al., 2018). Therefore, participants' biofeedback measures or group participation in behavior skills practice impose negative or positive influences on healthy states of consciousness scale average daily scores, heart rate variability and coherence score improvement, and stress-transformation daily practice occurrences.

The IMB theoretical framework stands out from other behavior theoretical models due to the triple construct using information and motivation plus behavioral skills training in IMB-based programs (W. A. Fisher et al., 2003). The IMB model also reinforces the inclusion of self-efficacy like other behavioral theories, but the IMB model encourages both objective and self-efficacy perceptions (W. A. Fisher et al., 2003). Other theoretical models also presented coherence score improvements and healthy states of consciousness scale improvement programs. One of those models is SCT, and another is the theory of planned behavior, both of which suggest self-efficacy perception refers to personal belief in the individual to adhere to a prescribed health-measure (Glanz et al., 2008). Self-efficacy as objectively perceived by the participants of health behavior modification programs and the improvement of healthy heart rate variability, coherence scores, and

stress-transformation daily practice incorporating the use of new health-behaviors of the IMB model (HeartMath, n.d., 2013).

The designers of the IMB model (W. A. Fisher et al., 2003) intended for IMB programs to be easy to understand and to promote confidence in the participant's self-efficacy, both objective and perceived. The IMB model promotes using factors from different levels of constructs, using intrinsic and extrinsic motivation angles to promote positive outcomes (W. A. Fisher et al., 2003). Using the triple construct of the IMB model in a stress-transformation, consciousness education, career, and finance, online program is essential as reflected in other programs using only single or double constructs to promote the goals of the various programs (W. A. Fisher et al., 2003). Participants' and instructors' online engagement interaction and support have shown improved outcomes of behavioral health programs for working-age women and minorities of lower social and economic status with less access to resources in-person (Bauer, 2018; Bradford et al., n.d.).

### **Theoretical Framework**

This section examines the use of the IMB model for various health promotion goals, the efficacy of using the IMB to design career- and financial-stress-transformation programs, and the application of this model in designing the QW program.

#### **Background of the IMB Skills Model**

To better understand and promote health-related behavior, the IMB theoretical model is a general psychological model coupled with skills training and self-efficacy of participants (W. A. Fisher et al., 2003). The designers of the original IMB program

sought ways to increase the use of HIV medication for the participants diagnosed with AIDS (W. A. Fisher et al., 2003). W. A. Fisher et al. (2003) incorporated other relevant social and behavioral health theories to develop the three constructs of the IMB model as its basis in one program. The model's authors developed this model to address limitations they perceived in other relevant theories. They sought to define the relationships of all three constructs and improved measures to allow the program's design, to assist in predicting the validity of each construct while allowing for self-efficacy through ease and understanding combined and the inclusion of constructs needed to understand and change health behaviors. The IMB model translated into intervention programs related to medical regimen adherence, new health skills adherence, support to stop negative health-related habits, and simple ways to improve health by incorporating easy-to-use skills, coupled with information and increased motivation of the participants (W. A. Fisher et al., 2003). The constructs were selected to allow for a critical review and integration of other social and health psychology theories. The IMB design is easily comparative to other HIV interventions analyzed by the authors of the IMB design (W. A. Fisher et al., 2003) and in this literature review chapter. More recently, the IMB skills model supports diverse health challenges requiring behavioral health practices of the participants, such as the use of motorcycle helmets, diabetes self-care, instructions for increasing cancer prevention breast self-examinations and reducing tuberculosis infections (W. A. Fisher et al., 2003)

This literature review comparing different models for improved health behaviors supports the constructs of the IMB by reflecting on the variety of constructs to generate a more straightforward prediction of and promotion of adherence to desired health

behaviors (Chang et al., 2014; W. A. Fisher et al., 2003; Osborn et al., 2010). Key factors for modification of health-related behaviors include IMB constructs and other comparative behavioral theories used in the design of the IMB model. These key factors for health-related behaviors show they are each essential constructs needed when a program is designed to modify any desired goals for participants to adhere to improved health behaviors.

Frequently in health promotion interventions, the three constructs of the IMB model—information, motivation, and behavioral skills—are each used in designing programs for health-related behavior changes. The models other than IMB reviewed in this chapter incorporate one or two of the constructs separately in health interventions. Because the IMB model allows for the analysis of causal relationships between the three constructs, the IMB generates procedures easily used to design programs based on this model into behavioral health interventions for possible improved health outcomes (W. A. Fisher et al., 2003). When behaviors are complex, the IMB model suggests the best outcomes when individuals are informed, motivated, and provided with easily incorporated health behaviors. This combination of constructs leads to desired outcomes of medical adherence, reduction of destructive behaviors, or new perceptions and motivation to comply with regimens to reverse adverse health risks or diagnosis (W. A. Fisher et al., 2003).

### **IMB Skills Model Overview**

The IMB model incorporates the information and motivation constructs in a way that allows them to be measured independently or as mediators to each other. When

participants of health behavior intervention programs provide education alone, they may not be motivated to incorporate a behavioral change. If an individual is motivated to stop smoking, for example, but lacks critical information about the risks, they may not change behaviors.

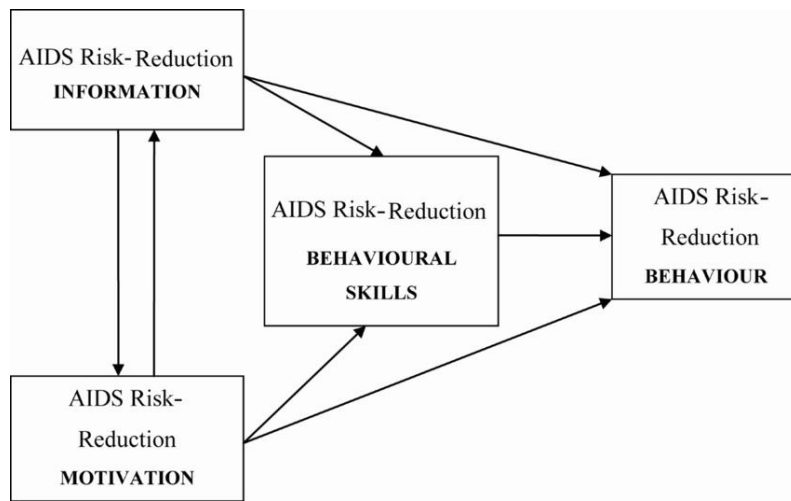
The IMB model in Figure 1 displays the relationships between the three constructs of the IMB design. As shown in Figure 1, information and motivation may directly affect behavioral change, according to the IMB model, if complex or newly learned skills are not required to adhere to improved health behaviors. The IMB authors share the example of AIDS patients who are HIV+ and the possible correlation to adhere to an HIV medication when they learn this medication can reduce symptoms common with HIV (W. A. Fisher et al., 2003).

Behavior skill adherence can be mediated by motivation and information, IMB assumes. In other words, by teaching health-promoting behavioral skills, adding those easy-to-incorporate skills to health-related information, and promoting motivation components, the initiation and maintenance of behavioral change can more easily happen (W. A. Fisher et al., 2003).



**Figure 1**

*The Information-Motivation-Behavioral Skills Model of Health Behavior*



*Note.* From Fisher and Fisher, 1992.

### **IMB Skills Triple Constructs**

The IMB design, modeled to promote health-related information, levels of positive motivation, and easy-to-incorporate behavioral skills, combines with utilizing all necessary constructs the authors concluded were necessary constructs in adopting new health behaviors. Providing information relevant to desired health behavior adherence, W. A. Fisher et al. (2003) concurred that participants provided with information, who are motivated, and taught skills needed to perform a behavior, are highly likely to adopt healthy behaviors. The opposite of this is not being motivated, not having reliable information, and lacking skills to perform a health-promoting behavior, most likely resulting in unfavorable health outcomes.

### ***Information***

Information can be presented as facts, implicit theories, and heuristics to influence healthy behavior. Information directly relevant to the promoted health behavior is necessary for an individual to accomplish new behavioral skills for improved health reasonably (W. A. Fisher et al., 2003). Programs promoting self-examination for early breast cancer detection should include facts and statistics related to curable breast cancer through early detection, compared to cancer detected later. They should also include heuristic information that regular self-examination becomes easier with practice, and the implicit theory that women over 40 should get a professional examination regularly, too (W. A. Fisher et al., 2003). These three informative messages above have increased the willingness of higher rates of adult women in western societies to adopt the practice of self-examination (CDC, 2020, ODPHP, n.d.; Lord et al., 2018)

### ***Motivation***

Motivation influences the likelihood of an individual to perform a behavior by a measure of their belief in benefits if they incorporate new health behaviors, according to the IMB (W. A. Fisher et al., 2003). Motivation depends on the individual's attitude toward the promoted health behavior. There is another motivation considered in designing IMB programs, and that is social motivation. Social motivation can be a motivating factor if the individual perceives society frowns on behavior like smoking. When there is social support to stop smoking, that can motivate an individual. When social promotion to adhere to a program, such as cancer screenings, condom use, healthy diets, and exercise, are examples of social support behind the promoted health-related

behavior. Both social and personal attitudes toward HIV prescription adherence may be the compelling motivation to influence whether individuals comply with the prescription regimen (Alexander et al., 2017). Behaviors promoted to adhere to, in the uptake of a medication, or a cessation of unhealthy behavior in other health challenges, are also predicted by personal attitudes and perceived social support (W. A. Fisher & Fisher, 1993; W. A. Fisher et al., 2003; J. D. Fisher et al., 2002).

### ***Behavioral Skills***

The IMB model constructs of information and motivation are enhancers to adopt promoted behavioral skills the participants believe they can easily incorporate. The behavioral skills construct considers the ability to incorporate objective and perceived self-efficacy. Self-efficacy relates to an individual's information, motivation, and desire to perform or stop the promoted health change. The example of self-examination for breast or testicular cancer early detection is probable when an individual knows how to conduct the examination efficiently and has self-efficacy in their ability to detect any issues during the exam. Many studies support how essential self-efficacy confidence is when a program goal is to promote new health-related behaviors to the program participants. Again, the example, smoking cessation, breast or testicular self-examination, or medication adherence are most likely to be performed or ceased if the individual is confident in their ability to follow through in the behavior skill (W. A. Fisher et al., 2003; Glanz et al., 2009).

The relationships of the IMB triple constructs should consider a diverse population, using general health skills across a specific population and specific to the

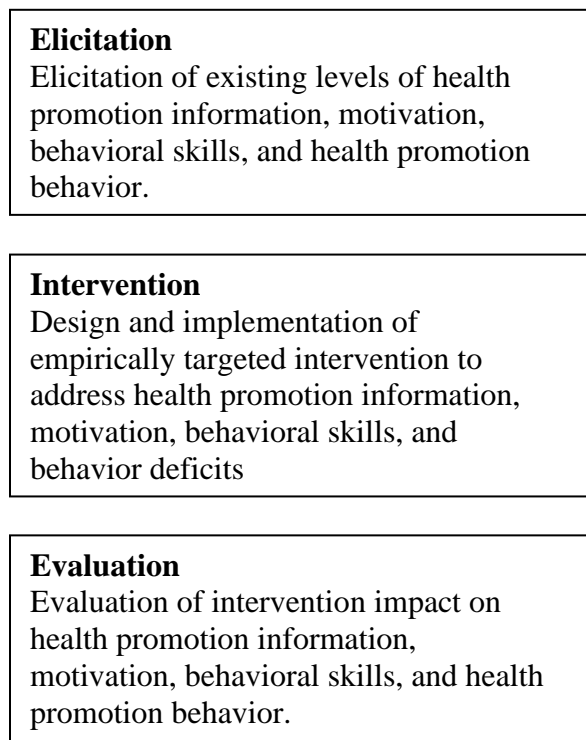
health conditions. Each of the three constructs of the IMB model should consider any specific health behavior and a specific population in its design. Not every construct or causal pathway will have the same influence or level of perceived efficacy toward specific health behaviors when promoted to different populations. Each causal pathway of the three constructs has the potential to add strength in influencing new health behaviors, provided the target population is understood in the design. IMB constructs for an HIV prevention program would be unique to the population participating. For example, the program constructs can change depending on the characteristics of individuals participating, if a binary group, just men or just women, heterosexual or homosexual, or a cultural influence on the subject possibly differing over different geographical cultures and norms within a community. In particular, the creators of the IMB model (W. A. Fisher et al., 2003) intended to have each construct provide causal pathways to the desired outcomes, if applicable in the diverse programs.

When preparing to design a program based on the IMB model, the first step intended by the program's authors is elicitation research. Start with a small group when conducting initial elicitation research, and have members of that small group represent a portion of the population addressed in the final study or program. Elicitation research analyzes the model fit to the desired health behavior using the three constructs of the IMB model. During the research, these three IMB constructs should relate to the specific group the program is designed for. W. A. Fisher et al. (2003) suggest open-ended surveys for the target population representatives and some close-ended techniques of the IMB-

related survey to avoid bias or persuasion of participants' answers, which will likely vary for target populations or diversified groups.

After the elicitation research, designing interventions appropriate to the target population is the appropriate next step. The interventions should target the diverse population or individuals addressed in the program (W. A. Fisher et al., 2003, p.87). The program design should capitalize on the asset found during the elicitation and address the deficits (W. A. Fisher et al., 2003).

Step three to designing an IMB program would be conducting an intricate system to evaluate the constructs of the program, which allows for consistent measures for the efficacy of the IMB model and the constructs included in the program. W. A. Fisher et al. (2003) suggest follow-up evaluations after the program is complete to test for the efficacy of the program goals over time (W. A. Fisher et al., 2003). The Intervention-Motivation-Behavioral Skill program design steps are demonstrated in Figure 2 below.

**Figure 2***The Information-Motivation-Behavioral Skills Model Approach to the Promotion of Health Behavior*

*Note.* Adapted from Fisher and Fisher (1993).

**Related Variables of Interest for QW Program Focus**

Related theoretical variables of interest used in career- and financial-stress-transformation and consciousness education programs are reviewed below.

***Self-Efficacy***

Albert Bandura (2004) developed the construct of self-efficacy when he constructed the SCT. Bandura (2004) believed self-efficacy was a central focus in other behavioral theories, including the health belief model and the transtheoretical model. Self-efficacy addresses an individual or group's belief and confidence that they can

successfully perform the prescribed behavior in a way that results in the desired goals of the program (Glanz et al., 2009). Most theoretical models include self-efficacy and reflect the individual's self-assurance, perceived belief, and confidence to perform the healthy behavior promoted and not revert to unhealthy behavior, even in challenging situations. (Glanz et al., 2009).

Albert Bandura (2004) lists these methods for promoting increased self-efficacy: Mastery experience, social modeling, improved physical and emotional states of consciousness, and verbal persuasion. These self-efficacy methods include considering an IMB-designed program as self-efficacy is central to performing a health behavior.

### ***Behavioral Skills***

As a significant focus of the IMB model, behavioral skills promote training and demonstrations of abilities to perform a new behavior, coupled with an individual's perception of self-efficacy. Bandura's self-efficacy and the IMB constructs include both abilities and perceived self-efficacy. When an individual is well-informed and highly motivated about a particular health behavior, adding easy-to-adapt behavioral skills is necessary for the long-lasting performance of the desired skills, according to the IMB model.

Causal pathways determined through the three constructs of the IMB model can be increasingly or decreasingly influential to the individual performing the health behavior or skill. The increase or decrease depends on the specific individual in a target population and the health promotion behavior of interest. The IMB model uses these

three constructs and the individual's self-efficacy to improve adherence rates to the prescribed behavioral skills being promoted (W. A. Fisher et al., 2003).

### ***Consciousness Education***

Consciousness education in the IMB model is a construct and part of the Transtheoretical Model. Consciousness education raises the participant's focus by presenting facts, ideas, and information about the health topic of focus. This construct may support the participant's compliance with a desired health-behavior (Glanz et al., 2009). The construct of information in the IMB model and consciousness education in the Transtheoretical model are necessary constructs to provide participants with improved self-efficacy and trust in the program instructions being promoted by providing greater awareness of the focused health subject. In addition to consciousness education, the Transtheoretical Model and the IMB model also add information on theories and heuristics along with verifiable facts about health-related behavior. When implicit theories and heuristics are part of the IMB program, health-related behaviors are significantly adopted (W. A. Fisher et al., 2003). The IMB and Transtheoretical models, the Health Belief Model, and the SCT seek to raise conscious awareness of the participants before promoting a desired behavioral skill in the program (Glantz, Rimer, and Viswanath, 2009).

### ***Social Norms and Individual Attitude***

A central tenant of the Theory of Planned Behavior and the Theory of Reasoned Action is the participants' intention. The participant's intention to perform the promoted behavior predicts the outcome. In both theories, intention is directly influenced by social



norms and the attitude of the individual participant. How strongly an individual believes in the positive benefits of a prescribed behavior is the predictor most telling of the individual's attitude toward promoted behaviors. According to SCT, TRA, and TPB theories, participants with high self-efficacy and positive attitudes about the new behavior being encouraged will reflect a positive attitude toward adherence to the desired behavior. The opposite, negative belief about the benefits of the behavior adoption, will be reflected in a negative attitude of the participant (Glanz et al., 2009) like the Health Belief Model (HBM) construct named perceived benefits. Perceived benefits of the behavior will likely result in the adoption of the behavior (Glanz et al., 2009).

The three listed theories, TRA, TPB, and SCT, incorporate the importance of perceived social expectations and norms. Social expectations are considered determinants of the adoption of prescribed health behavior. Social norms and social expectations reflect an individual's perception related to close family, friends, or coworkers. The individual's perception of how others will view the adaptation of the health behavior will weigh heavily on predicting adherence to the health behavior. If the individual believes other people encourage the performance of healthy behavior, they are more likely to try to meet the expectations of those closest to the individual. According to these theories, the individual will likely not perform the behavior if they do not perceive social expectations in support of it (Glanz et al., 2009).

Social support and individual attitudes of the program participants of an IMB program are similar concepts in hopes of participants being motivated to adhere to healthy behavior. The SCT purports that the individual will weigh the benefits and cost

expectations of an outcome, which are more motivating than social support or social expectations. The SCT, therefore, would be designed to include rewards to perform or motivation to avoid not performing. In the SCT, if the individual feels that not performing the health behavior would be socially disappointing, the individual can be motivated to perform or to avoid that negative perception (W. A. Fisher et al., 2003; Glanz et al., 2009).

### **IMB Skills Model for QW Program**

#### ***IMB Model Predicts Behavior Skills for Medical Adherence, Helmet Wearing, Condom Use, and Healthy Habits for Participants of IMB Programs***

Alexander et al. (2017) evaluated the efficacy of the IMB model for medication adherence for patients with vasculitis disease. Medical adherence can be predicted through the IMB model, as the model's creators demonstrated in many HIV medication adherence programs (W. A. Fisher et al., 2003). Using an online questionnaire for patients with vascular disease and prescribed medications, the study examined by Alexander et al. (2017) revealed that the effects of information and motivation on adherence to medication regimens significantly mediated health-related behavioral skills. The authors concluded that their results support the IMB-hypothesized relationships between information, motivation, behavioral skills, and adherence to prescribed behaviors.

The IMB skills constructs concluded by Alexander et al. (2017) can be applied to various health promotion behaviors, including wearing helmets on motorcycles, wearing seatbelts, self-examination cancer screening, and medication adherence. For example:

showing the mediation of clear information about health risk and the benefits of adherence to new health behavior add to motivation. Adding motivation to avoid adverse health outcomes, clear information, and self-efficacy results in the individuals being informed, confident, and adherent using the IMB-based program. Alexander et al. (2017) suggest this triple construct should include heuristic, accurate decision rules, such as the risk of the antiretroviral medication outweighs the benefits. Alternatively, patients who have followed the vasculitis medication regimen have lowered adverse effects of the disease after two months of adherence (Alexander et al., 2017). In addition, personal motivation, attitudes, beliefs, objective abilities to perform behavioral skills, and self-efficacy mediate clear information about the pros and cons of the prescribed regimen (Alexander et al., 2017).

Personal motivation and social motivation are two parts of the motivation construct of the IMB model. For example, personal motivation for individuals with multiple sexual partners includes beliefs about the consequences of unprotected sexual intercourse from disease or possible unwanted pregnancy. The belief that using condoms when sexually active can protect against sexually transmitted diseases and prevent pregnancies can mediate positive motivation. The belief that not wearing a motorcycle helmet is cool or refusing to use a condom during intercourse as socially accepted predicts negative motivation. Social motivation, based on the individual's perceptions about social support from significant others if the individual performs the health-related behavior, is a predictor of the individual's willingness to comply with the expectations of significant others (W. A. Fisher et al., 2003; Osborn et al., 2010).

In the vascular medication adherence IMB study, linear regressions determine the direct effects of the constructs of information and motivation on medical adaptation (Alexander et al., 2017). The analyses were conducted with the correlation matrix generated by 228 participants (Alexander et al., 2017). In the diabetes IMB study, the comparative fit index (CFI) and root mean error of approximation (RMSEA) statistical tests were used to measure the fit of the model (Osborn et al., 2010). The hypothesis tested the triple constructs and their relationships in the IMB model via the direction and significance of the path coefficients (Osborn et al., 2010).

In conclusion, analysis suggests improved health behaviors when programs promote positive attitudes, increased self-efficacy, consciousness education, supportive positive perceptions of norms and social support, and promoting a wide range of health-related behavioral skills. According to the findings across these IMB program studies, attitudes and behavioral skills should be the focus for interventions aimed at increasing physical activity, medication adherence, reducing risks for cancer, healthy diets, use of condoms and motorcycle helmets, and improved health outcomes using biomedical feedback tools to quantify outcomes. The IMB model is appropriate for the design of interventions targeting specific behaviors for defined populations.

### ***Predicting Stress-Transformation and Higher Coherence With Improved Heart Rate Variability***

Elbers and McCraty (2020) authored a study investigating the IMB model for predicting improved emotional self-regulation foundational to the vast majority of health and social problems for an epidemic of chronic stress and decreased health outcomes.

Elbers and McCraty (2020) examined emotional self-regulation and psychosocial well-being using the HeartMath approach. The HeartMath studies have identified a specific physiological state associated with optimal emotional self-regulation and cognitive functioning. To understand the factors of this study, Elbers and McCraty (2020) sought to understand constructs and other factors related to physiological states associated with optimal coherence. Coherence in physics is described as the combination and coherent synchronization between two or more oscillating systems (Elbers and McCraty, 2020). When coherence increases in a biological system, increased coherence in one system can increase synchronization in other oscillating systems, shares Elbers and McCraty (2020). The authors of the study state that physiological coherence relates to different degrees of harmony, order, and stability in various rhythmic activities in biological systems, like heart coherence, measured with heart rate variability (HRV). Elbers and McCraty (2020) provide information, motivation, and behavioral skill recommendations for managing stressful, emotionally triggered events; preparing for upcoming challenges; developing mental and emotional self-regulation techniques to improve quality of life and stress-related health measures. This research supports the inclusion of stress transformation techniques, information, and motivation, along with the use of biofeedback tools for self-monitoring HRV and consciousness education to individual awareness of emotions and cognitive functionality improvements for peak performance in careers, relationships, and life, by incorporating all three constructs of the IBM model in programs for stress-transformation and general well-being.

### *A Systematic Review of the IMB Model to Change Behavior*

In a study conducted by Chang et al. (2014), their systematic review sought to evaluate strategies based on the IMB theoretical framework to test their effectiveness in promoting behavior changes among individuals diagnosed with chronic medical conditions, such as prolonged chronic stress. Chang et al. (2014) state that effective IMB program strategies and specific health behaviors identified need to be promoted, noting that chronic medical conditions are prevalent and increasing worldwide. Behavioral changes are essential for managing chronic medical conditions such as stress, depression, heart disease, mental diseases, and more. Behavioral theories for health promotion program designs specific to chronic medical diseases include the transtheoretical model, the theory of planned behavior, the theory of reasoned action, the IMB skills model, and the health belief model. Because the IMB model can be used to develop intervention programs, the IMB model was the primary model studied to examine its ability to target the implementation of healthy behaviors for individuals with chronic conditions. The IMB model was given the most attention because it promotes simple actions and behavior adaptation for complex health behaviors. Chang et al. (2014) identified the best predictor of interactive constructs specific to promoting health behavior adherence for individuals experiencing chronic medical conditions and risky health behaviors (Chang et al., 2014).

Chang et al.'s (2014) systemic review used the guidelines adopted by the National-Evidence-based Healthcare Collaborating Agency and guidelines by Im and Change, 2012. Chang et al. (2014) examined electronic databases to gather literature for their study. They included studies using randomized controlled trials to test the IMB

constructs for positive results in adopted health behaviors and improved health outcomes among participants with chronic medical conditions. Most of the twelve studies Chang et al. included in their examination targeted HIV/AIDS medical adherence. In contrast, the other studies targeted individuals with type II diabetes, chronic coronary artery disease, and certain cancers. Five of the twelve studies included quantitative biological measures, for example, HIV loads and measures for concerning levels in people with diabetes (Chang et al., 2014).

The studies Chang et al. (2014) included in their investigation addressed the IMB construct of motivation. The motivating construct in the studies included methods to promote self-efficacy and positive attitudes. The motivational construct revealed techniques to enhance perceived social norms, a primary factor in this construct. The IMB information construct included educational materials, from videos to handouts, summarizing information applicable to the target audiences. The IMB construct of health behavior promotion was support to improve perceived and objective self-efficacy. As the IMB method also promotes addressing objective and perceived self-efficacy, the studies selected in the investigation demonstrated the inclusion of smoking cessation skills, condom use, and mastery over alcohol dependency (Chang et al., 2014).

Of the studies Cheng et al. (2014) investigated to promote behavioral skills targeted at individuals with chronic medical conditions, all twelve studies based on the IMB model resulted in measurable, causal, and significant behavioral changes.

Chang et al. (2014) investigation of the IMB model suggested that the IMB model is most successful in informing, motivating, and adapting new health behaviors by participants of IMB studies experiencing chronic medical conditions.



### Chapter 3: Research Method

This study examined the utility of the IMB model as the best design for a new intervention, the QW program. Producers and instructors of the program engaged me to test the efficacy of their initial program. Secondary data from the participants, provided to a confidential team to remove identifying information, was confidentially released to me to analyze as the foundation of this quantitative analysis.

The QW program focuses on helping participants transform stress, raise consciousness, and design a passion-based career to motivate career and financial security. The program consists of seven parts offered over Zoom.com and includes three reading material sources to cover in the workshops. Each program segment was surveyed quantitatively to test the participant's feedback on the benefits and efficacy of the program's stated goals.

The QW program used the IMB model as the foundation of the program design. The target population for the program is working-age women and Native tribal members living in the United States. These populations are the target population based on the program directors' interest in social change agent work for women and Native tribal members of the United States. The inclusion of participants included quantitative questionnaires measuring the stress levels of the self-selected participants. All participants were working age and rated their daily stress levels related to career and financial security as medium to high-stress scores and their general stress levels before the program began. They were all surveyed anonymously after each of the seven segments of the complete program to provide feedback on the perceived value of the

information, motivation, and behavioral skills taught throughout the program. These constructs were analyzed based on the research questions provided in the introduction of this report.

The designers and instructors of the QW program each presented an area of the program they are certified to teach. They utilized their combined programs to focus three independent businesses together to reach a larger audience with their shared desire to help people with stress transformation, consciousness education, and career reinventions. A licensed medical doctor taught the health challenge present throughout the complete program. In contrast, consciousness education was presented by a business owner and licensed massage therapist (LMT), and a licensed psychotherapist and PhD taught career reinvention. Each instructor is female, and the LMT is a Native tribal member from Peru and a resident of the United States.

The program director's purpose in engaging me to analyze their program was to provide feedback, test constructs of the program for efficacy, and test the benefits the participants received as a result of the 22-day online workshop. Based on this research and analysis, the program will be a multistudy program. However, only the data from the first two offerings of the complete program were included in this study. The providers hope this analysis will help them know which areas of the program need to be reevaluated and improved for further participation in the program.

The primary constructs of the IMB model are information, motivation, and behavioral skill adaptation. The producers and instructors of the QW program have collected blinded quantitative data reflecting the efficacy of their program and the

adaptation of behavioral skills taught in the program. Awareness and understanding of data support the test for the information construct. In contrast, data about attitudes, self-efficacy, and understanding of the education and tools test the motivation construct. Data related to stress-transformation practices, states of consciousness scale electromagnetic frequency (hertz score) averages, heart-rate variability and coherence scores, and passion-based career activity practices predict behavioral skills adherence, as surveyed throughout the program and again 2 weeks after the program ended.

Secondary data are the basis of this quantitative analysis. Data collected by Resilient Health Institute, Infinity Healing, and Healing Hearts for their career- and financial-stress-transformation program helped to analyze the program benefits and health improvements.

The study participants included working-age women, men, and Native tribal members of North America. Participants all consented to have their confidential quantitative survey answers shared with me after all identifying information was removed and collated on an Excel worksheet for research.

The remainder of this chapter covers the IMB methodology; the IMB designed QW program; data collection procedures; program population, setting and sampling strategy; research questions and hypotheses; data analysis; tests used and why; assumptions; and limitations of the study.

### **The IMB Design of the QW Program**

The primary dependent variable was an IMB-based career- and financial-stress-transformation program promoting healthy states of consciousness daily average scores,

ongoing stress-transformation practice occurrences, heart-rate-variability and coherence score improvements, and passion-based career activity planning. The demographic characteristics of the participants were tested as a potential predictor of independent variables in this study. Demographic characteristics for the participants include age, gender, Native member status, socioeconomic status, education level, and attendance rate to the career- and financial-stress-transformation QW workshop. Dependent variables in this study include motivation, information, passion-based career goal activity, healthy states of consciousness scale daily average hertz score, stress-transformation practices, heart-rate variability and coherence scores.

Definitions for independent variables are as follows:

- Gender: Female, male, prefer not to answer
- Marital status: Single, married, living with a partner, separated, divorced, widowed, prefer not to answer
- Native tribal member: Yes or No.
- Participant's age group: 18-30; 31-40; 41-50; 51-60; 60 and older, prefer not to answer
- Participant's attendance rate: 7 segments, 6 segments, 5 segments, 4 segments, 3 segments, 2 segments, 1 segment.
- Education level: High school graduate, some college, bachelor's degree, master's degree, a doctorate.
- Socioeconomic status: One working household member or two?

- Total household annual income before the program: \$0–\$55,555? \$55,556–\$88,000? \$88,000 or higher?

Definitions for dependent variables are as follows:

- Passion-based career goal activity: Daily engagement in passion-based career activity goals for 60 minutes every day.
- Healthy states of consciousness scale daily average: Increased daily average of states of consciousness scale (electromagnetic hertz frequency score)
- Stress-transformation practices: Daily practice of tools and techniques for transforming stress related to career and finances.
- Heart rate variability (HRV) and coherence scores: Using the biofeedback, Inner Balance, or emWave tool for measuring and improving HRV and related coherence scores.
- Interest: Motivation toward stress-transformation practices and passion-based career activity.
- Awareness: Information about basic quantum biophysics overview, states of consciousness scale, neurocardiology basics, heart-rate-variability related to biological systems coherence, observation and expectation related to stated goal outcomes, and how thoughts and emotions correlate to states of consciousness and stress-related health measures.

To test the IMB model using the research questions in Chapter 1, I examined associations between dependent and independent variables. The variables are based on the IMB model and its triple constructs derived from a theory, the combined desired

outcome of the program developers, and new behavior skills the instructors wish to promote. This research is to analyze the efficacy of the new program so the presenters of the program can know which of the segments included are helpful to the desired outcome for participants in order to determine if the IMB model is a sound design basis to understand and predict the behavior skills of interest. Another approach to test this IMB model-based program is to evaluate the intervention program and analyze the quantitative data to assess the targeted constructs of the IMB model related to promoted behavioral skills modified by the intervention(s) based on the analysis results (Bauman et al., 2002).

This study analysis of the QW program used a combination of both approaches to assess the potential of the IMB model and the efficacy of the lessons provided as constructs of information, motivation, and new health behavior skills to adopt by the participants. A goal of the study was to test this program and related data to evaluate the IMB method and to analyze, measure, and possibly predict the application of health-behavior practices for improved healthy states of consciousness scale daily average frequency scores, stress-transformation practices, heart-rate-variability and coherence scores, and passion-based career goal activity among working-aged women and Native tribal members of North America.

### **Research Methodology**

Researching this IMB methodology included analyzing quantitative data from Resilient Health Institute, Infinity Healing, and Healing Hearts for the QW program. The Appendix includes details of the QW intervention.

This study used pre, post, and 2-week follow-up survey responses to assess the appropriate use of the IMB model as the design for changing motivation and information or understanding related to healthy states of consciousness daily average, stress-transformation practices, HRV and coherence scores, and passion-based career goal activity. In addition, data about passion-based career activity obtained at the 2-week assessment was analyzed for predicting the IMB constructs along with participant's demographic variables as a measure of the efficacy of the program and the measure of its benefits in transforming stress, raising consciousness frequency scores, and providing passion-based career plans to improve life satisfaction, improved confidence in career and financial security, and improved health measures related to stress.

### **Data Collection Procedures**

An analysis was performed using the data confidentially collected to test the effectiveness of the career and financial reinvention QW workshop. Resilient Health Institute, Infinity Healing, and Healing Hearts designed questionnaires for the QW program evaluation. The questionnaires assess participants' understanding of information, interest, motivation, and practices related to stress transformation, consciousness education, heart rate variability and coherence scores, and passion-based career activity. Demographic data collected for the participants includes age, gender, Native member status, socioeconomic status, education level, and attendance rate to the career- and financial-stress-transformation workshop, QW program. Data were collected by a confidential assistant via a confidential portal program email and blinded before being provided to me for analysis. The data were collected in four phases:

1. **Pretest:** Six questionnaires were used to assess baseline information understanding, motivation or interest, healthy states of consciousness scale daily average frequency scores, heart rate variability and coherence score basis, frequency of stress-transformation practices, and passion-based career goal activity. Demographic characteristics were also collected from the participants via a confidential portal email by the anonymous assistant to the instructors.
2. **Intervention:** The QW program is an online information, motivation, skills practice, interactive program delivered in seven segments for 22 days. Sessions last for 1–2 hours, twice weekly, for 3 weeks. Participants learn information and behavioral skills related to healthy states of consciousness scale frequency scores, heart rate variability and coherence score basis, tools and techniques for stress-transformation practices, and passion-based career activity based on money blueprint exercises and stated intentions. The QW program was designed to address intrinsic and extrinsic motivation as part of the IMB model related to passion-based career activity, heart rate variability and coherence scores, stress-transformation practices, and healthy states of consciousness scale practices for raising the daily average frequency scores. Behavioral skills participation and benefits as self-reported by each participant and the biofeedback coherence scores were assessed to look for any measurable improvement in the dependent, and independent variables examined.



3. **Posttest:** Six questionnaires were used to assess any changes to baseline information understanding, motivation or interest, improved states of consciousness scale daily average frequency scores, heart rate variability and coherence score basis, frequency of stress-transformation practices, and passion-based career goal activity along with the independent variable of attendance to segments offered with the QW program.
4. **Follow-up at 2 weeks:** Questionnaire data were again obtained 2 weeks after the intervention to evaluate the sustainability of behaviors targeted by the QW program, including motivation, information understanding, and stress-transformation practices frequency, about healthy states of consciousness scale daily average frequency scores, heart rate variability and coherence scores, and passion-based career goal activity.

### **Program Population, Setting, and Sampling Strategy**

The quantitative data from each participant represents working-aged women, men, and Native tribal members from North America who completed the pretest, posttest, and 2-week follow-up to evaluate the QW online workshops. The initial workshop participants were included based on self-reported medium to high career- and financial-stress levels. Attendance rates for participants ideally represent a random population of working-aged women and Native tribal members of North America, offered online in English. A table is included in the analysis for attendance rates and the percentage of participants who completed both the pretests and posttests.

*Quantum Wellness Program: 22-Days to Easy Career and Financial Reinvention*

*Attendance Rate per Segment and Test Completion*

Segment #s 1-7

Participation Rate (%) per Segment

Participants who completed pre & post tests (%).

### **Research Questions and Hypotheses**

Research Question 1: To what extent do the constructs of this IMB Skills Model explain health behavior changes in four measured areas, (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily?

Null hypotheses:

- *Null Hypothesis 1a.* IMB variables will not be most influential in the improvement of (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily compared to independent variables.
- *Null Hypothesis 1b.* The IMB will not explain a significant amount of variance in (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career

activity steps taken daily greater than or equal to what is reported in the literature.

- *Null Hypothesis 1c.* Those who acquire more information understanding, are well motivated, and acquire behavioral skills will not be more likely to improve in (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily, compared to those who are less motivated or less understanding of the information presented in the QW program.

Test hypotheses:

- *Test Hypothesis 1a.* IMB variables will be most influential in the improvement of (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily compared to independent variables.
- *Test Hypothesis 1b.* The IMB will explain a significant amount of variance in (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily, greater than or equal to what is reported in the literature.

- *Test Hypothesis 1c.* Those who acquire more information understanding, are well motivated, and acquire behavioral skills will be more likely to improve in (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily compared to those who are less motivated or less understanding of the information presented in the QW program.

Research Question 2: Are improvements of the dependent variables motivation and information understanding sustainable at the 2-week follow-up?

- *Null Hypothesis 2:* Motivation and information understanding improvements will not be sustainable at the 2-week follow-up.
- *Test Hypothesis 2:* Motivation and information understanding improvements will be sustainable at the 2-week follow-up.

### **Data Analysis**

Related quantitative data from the QW program participants were examined for the efficacy of the program and the independent variable compared to the dependent variables. The analysis sought to provide information on the portions of the complete program, if any, predictive of the participants' improved health, wealth, and happiness, measured with skill adherence and daily scale improvements at post and 2-week follow-up scores.

The research questions/hypotheses for testing were the basis for the evaluation of each construct of the IMB model and the inclusion of the lessons on information,

motivation, and new behavioral skills testing for any signs of value or any effects on the participants as a direct result of completing the program. The methodology used in the analyses used descriptive statistics, a multivariate analysis repeated measures MANOVA, and ordinal regression analyses. Frequencies and descriptive statistics were measured for all variables. Measurements were conducted to analyze pre, post, and 2-week questionnaires, testing for any scores deemed as high using the program participants' demographic variables. Pre, post and 2-week score assessments were reviewed and considered high scores if they were greater than the baseline survey scores. The tests can be analyzed with the preliminary examination of the data; those results can help identify any high scores of motivation and information, and behavioral skills feedback. The QW program quantitative data used repeated measures designs (pre, post, and 2-week follow-up), along with a repeated measures MANOVA, conducted due to the multiple independent variables and the repeated measures design.

To explore interactions among dependent and independent variables, the research evaluation included repeated measures MANOVA tests. A repeated measures ANOVA test was used to test the dependent variables of information and motivation over time for improvement and sustainability, if any, of these dependent variables at post and 2-week follow up.

Ordinal regression analysis tests were examined for the utility of the IMB skills model in predicting passion-based career daily activity, stress transformation practices, heart rate variability and coherence scores, and healthy states of consciousness scale daily

average frequency scores. Data was analyzed using IBM SPSS for Statistics 28.0 for Windows software.

### **Ordinal Logistic Regression**

Ordinal logistic regression can be used in testing the ordinal dependent variable given one or more independent variables. Ordinal logistic regression can account for interactions between independent variables to predict the dependent variable. Ordinal logistic regressions were carried out for the following practices: heart rate variability (HRV) and coherence score, stress-transformation practices, healthy states of consciousness scale daily average, and passion-based career activity every day. Each practice skill can be answered in an ordinal scale self-report, using quantitative measures on a confidential survey basis.

In linear regression, the multiple correlation coefficient  $R$  and the corresponding  $R^2$  are used to measure how well the model fits the data and to report variance explained by models. In ordinal logistic regression, a pseudo  $R^2$  value called the Cox and Snell's  $R^2$  is used; this value is based on the model's log likelihood and the original model's log likelihood. The results indicate the relationship of the independent variables to the likelihood of the dependent variables of each prescribed health behavior improving.

In addition, ordinal logistic regression is used in this study to assess the overall fit of the models for healthy states of consciousness scale daily average frequency scores and passion-based career activity. The SPSS output of the model's relevant information includes an intercept value that describes a model without predictor variables to control the model; it fits an intercept to predict the outcome variable. The final value includes

selected predictor variables; this value is obtained by an iterative process, which maximizes the log likelihood of the outcomes. The improvement can be seen by subtracting the -2 Log likelihood values of the intercept and final models. An insignificant value for the goodness of fit test indicates the model fit is good (Field, 2009; Institute for Digital Research and Education, 2016).

### **Assumptions of Logistic Ordinal Regression**

Independence of errors is one of the assumptions for logistic regression. This regression used 2-week follow-up data. If the cases of data are not related, pre- and post-data should be excluded from the test. If the data do not display overdispersion, the assumption is tenable. Multicollinearity and proportional odds assumptions can be examined with statistical tests.

*Testing for multicollinearity.* Tolerance and variance inflation factor (VIF) statistics can be used to test for multicollinearity problems. Tolerance values less than .01 and VIF values greater than 10 indicate severe collinearity problems. This study used the 2-week follow-up data to conduct the ordinal logistic regression. Tests are examined for an indication of collinearity or no collinearity. For example, the test may result in motivation, VIF=1 and tolerance = 1, and for information understanding, VIF = 1 and tolerance =1.

### **Limitations of the Study Analysis**

The generalizing result will be limited as the cause-effect relationships can only be found with the pretests and posttests collected from a small population of participants. There is a control group as well as pre and post-tests. Even then, the analysis is likely too

small to determine any conclusive validity. This study does include a control group to help with that vulnerability. This QW program is offered online and only with self-selected participants, though the participants may be representative of the general women and Native tribal member populations of North America, that will not be verifiable for this analysis.

### **Summary**

The secondary anonymous data provided to me was analyzed for dependent and independent variables using IBM SPSS Statistics, version 28.0 for an independent analysis of the IMB-based QW program. The data was collected via quantitative surveys to only the provider's assistant, and all identifying information was made anonymous.



## Chapter 4: Results

In this chapter, the findings of the data analyses are detailed and summarized. The study population included working-aged women and men, both Native and non-Native tribal members, from the Pacific Northwest who completed pre (n=122), post (n=122), and 2-week (n=44) follow-up survey responses to new information understanding and motivation related to four prescribed health behavior practices: (a) healthy states of consciousness scale daily average frequency scores, (b) heart rate variability and coherence scores, (c) stress-transformation practices frequency, and (d) passion-based career goal activity. The demographic characteristics of the participants are included in the analysis results.

### **Demographics and Results**

There were 122 participants: 36.10% males and 63.90% females. Most participants were 31–40 years old (79.50%), followed by those 18–30 years old (5.70%), whereas the least participants were older than 80 years (2.50%), and .80% preferred not to answer. As for education level, 73.00% participants completed a bachelor's degree, 18.80% some college, 5.70% high school, and 2.50% masters (see Table 1).

**Table 1***Frequencies for Gender, Age, and Education Level*

Variable	<i>N</i>	%
Gender		
Male	44	36.10
Female	78	63.90
Age		
18-30	7	5.70
31-40	97	79.50
41-50	5	4.10
51-60	5	4.10
61-80	4	3.30
>80	3	2.50
prefer not to answer	1	.80
Education level		
High school	7	5.70
Some college	23	18.80
Bachelor's	89	73.00
Masters	3	2.50

Most participants were married (70.50%), followed by single (10.70%), living with partner (9.80%), separated (2.50%), divorced (2.50%), prefer not to answer (2.50%), and widowed (1.60%). Of the participants, 89.30% had two working household members, while 10.70% had one working household member. Most participants had \$55,555–88,000 total household income (94.20%). Non-native-tribal members made up 91.80% of participants, while 8.20% were native tribal members (see Table 2).

**Table 2**

*Frequencies for Marital status, Socioeconomic Status, Total Household Income, Native Tribal Member*

Variable	<i>n</i>	%
Marital status		
single	13	10.70
married	86	70.50
living with partner	12	9.80
separated	3	2.50
divorced	3	2.50
widowed	2	1.60
prefer not to answer	3	2.50
Socioeconomic status		
one working household member	13	10.70
two working household members	109	89.30
Total household income		
\$0-55,555	3	2.50
\$55,555-88,000	115	94.20
\$88,001 or higher	4	3.30
Native Tribal Member		
Yes	10	8.20
No	112	91.80

The mean Career Activity Days per Week Average increased from pretest ( $M = .93$ ;  $SD = 1.18$ ) to posttest ( $M = 3.31$ ;  $SD = 1.74$ ) and 2-week follow up ( $M = 4.82$ ;  $SD = 1.67$ ). The mean Consciousness Scale Daily Average increased from pretest ( $M = 4.86$ ;  $SD = 2.24$ ) to posttest ( $M = 9.68$ ;  $SD = 3.14$ ) and 2-week follow up ( $M = 12.02$ ;  $SD = 3.70$ ). The mean Stress Transformation Practice Average Days per Week increased from pretest ( $M = .66$ ;  $SD = .91$ ) to posttest ( $M = 3.43$ ;  $SD = 1.57$ ) and 2-week follow up ( $M = 4.41$ ;  $SD = 1.51$ ). The mean HRV and Coherence Score increased from pretest ( $M = 1.73$ ;  $SD = .76$ ) to posttest ( $M = 4.49$ ;  $SD = 1.62$ ) and 2-week follow up ( $M = 4.73$ ;  $SD = 1.57$ ). The mean Information Understanding increased from pretest ( $M = 2.10$ ;  $SD = 1.13$ ) to

posttest ( $M = 6.52$ ;  $SD = 1.55$ ) and 2-week follow up ( $M = 7.18$ ;  $SD = 1.48$ ). The mean Motivation increased from pretest ( $M = 2.52$ ;  $SD = 1.14$ ) to posttest ( $M = 6.22$ ;  $SD = 1.52$ ) and 2-week follow up ( $M = 6.84$ ;  $SD = 1.35$ ; see Table 3).

**Table 3**

*Means and Standard Deviations for Career Activity Days per Week Average, Consciousness Scale Daily Average, Stress Transformation Practice Average Days per Week, HRV/Coherence Score, Information Understanding, and Motivation*

Variable	Pretest			Posttest			2-week follow-up		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Career activity days per week average	122	.93	1.18	122	3.31	1.74	44	4.82	1.67
Consciousness scale daily average	122	4.86	2.24	122	9.68	3.14	44	12.02	3.70
Stress transformation practice average days per week	122	.66	.91	122	3.43	1.57	44	4.41	1.51
HRV and coherence score	24	1.73	.76	24	4.49	1.62	23	4.73	1.57
Information understanding	122	2.10	1.13	122	6.52	1.55	44	7.18	1.45
Motivation	122	2.52	1.14	122	6.22	1.52	44	6.84	1.35

The control group made up 6.50% of participants; 12.30% were placed in three segments attendance rate group (information and motivation education); 61.50% in six segments (information, motivation, plus health behavior skills training) attendance rate group; and 19.70% in seven segments attendance rate group (information, motivation, skills training, plus biomedical feedback tool usage; see Table 4).

**Table 4***Frequencies for Attendance Rate Group*

Variable	<i>n</i>	%
Attendance rate group		
No segments/control	8	6.50
3 segments	15	12.30
6 segments	75	61.50
7 segments	24	19.70

**Research Questions and Testing****Research Question 1**

To what extent do the constructs of this IMB Skills Model explain health behavior changes in four measured areas, (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily?

***Ordinal Logistic Regression***

**Hypothesis 1a.** *Test Hypothesis 1a.* IMB variables will be most influential in the improvement of (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily compared to independent variables.

Ordinal logistic regression was conducted to determine whether gender, age, education, socioeconomic status of participants, Native tribal member, income level, and attendance group rate predicts likelihood of Career Activity Days per Week Average

improvement, Cox and Snell  $R^2=.206$ . The results indicated that gender, education, socioeconomic status of participants, Native tribal member, and income were not significant predictors of likelihood of Career Activity Days per Week Average improvement ( $p > .05$ ). Participant ages 18–30 years old decreased the likelihood of Career Activity Days per Week Average improvement ( $p < .05$ ). Participants in the no segment/control attendance group had a decreased likelihood of Career Activity Days per Week Average improvement ( $p < .05$ ). Participants in 3 segments attendance group had a decreased likelihood of Career Activity Days per Week Average improvement ( $p < .05$ ) (see Table 5).

**Table 5***Ordinal Logistic Regression Results*

Model	Estimate	SE	Wald	df	p
Male	.834	.765	1.187	1	.276
Female	0	.	.	0	.
18–30	-17.168	1.379	155.098	1	.000
31–40	-17.267	.000	.	1	.
41–50	1.343	7022.100	.000	1	1.000
51–60	.305	.000	.	1	.
61–80	.079	.000	.	1	.
>80	1.621	9691.195	.000	1	1.000
Prefer not to answer	0	.	.	0	.
High school	17.298	8161.786	.000	1	.998
Some college	-.617	1.656	.139	1	.710
Bachelor's	-.606	1.538	.155	1	.693
Masters	0	.	.	0	.
One working household member	.967	1.427	.459	1	.498
two working household members	0	.	.	0	.
Native Tribal Member (Yes)	-.321	1.277	.063	1	.802
Native Tribal Member (No)	0	.	.	0	.
Income \$0-55,555	17.572	.000	.	1	.
Income \$55,555-88,000	1.589	1.416	1.260	1	.262
Income \$88,001 or higher	0	.	.	0	.
No segments/control Attendance group	-2.575	1.287	4.006	1	.045
3 segments Attendance group	-2.424	1.099	4.862	1	.027
6 segments Attendance group	.391	1.107	.125	1	.724
7 segments Attendance group	0	.	.	0	.

*Note.* Dependent variable: Career Activity Days per Week Average improvement (no, equal, yes).

Ordinal logistic regression was conducted to determine whether gender, age, education, socioeconomic status of participants, Native tribal member, income, and attendance group predict likelihood of Consciousness Scale Daily Average improvement, Cox and Snell  $R^2 = .187$ . The results indicated that gender, age, education, socioeconomic status of participants, Native tribal member, and income, were not significant predictors of likelihood of Consciousness Scale Daily Average improvement ( $p > .05$ ). Participants in no segment/control attendance group experienced a decreased likelihood of Consciousness Scale Daily Average improvement ( $p < .05$ ). Participants in 3 segments attendance group had a decreased likelihood of Consciousness Scale Daily Average improvement ( $p < .05$ ) (see Table 6)



**Table 6**

*Ordinal Logistic Regression Results: Consciousness Scale Daily Average and Demographics*

Model	Estimate	SE	Wald	df	p
Male	.361	.550	.429	1	.512
Female	0	.	.	0	.
18–30	-16.450	7554.407	.000	1	.998
31–40	-17.087	7554.407	.000	1	.998
41–50	2.296	.000	.	1	.
51–60	-17.583	7554.407	.000	1	.998
61–80	2.372	.000	.	1	.
>80	1.963	.000	.	1	.
prefer not to answer	0	.	.	0	.
High School	20.208	.000	.	1	.
Some College	-.282	1.626	.030	1	.862
Bachelor's	-.096	1.550	.004	1	.950
Masters	0	.	.	0	.
1 working household member	-.137	.892	.024	1	.878
two working household members	0	.	.	0	.
Native Tribal Member (Yes)	.969	1.173	.682	1	.409
Native Tribal Member (No)	0	.	.	0	.
Income \$0-55,555	20.398	.000	.	1	.
Income \$55,555-88,000	2.505	1.490	2.824	1	.093
Income \$88,001 or higher	0	.	.	0	.
no segments/control Attendance group	-3.536	1.517	5.432	1	.020
3 segments Attendance group	-2.956	1.376	4.613	1	.032
6 segments Attendance group	-2.186	1.340	2.664	1	.103
7 segments Attendance group	0	.	.	0	.

*Note.* Dependent variable: Consciousness Scale Daily Average improvement (no, equal, yes).

Ordinal logistic regression was conducted to determine whether gender, age, education, socioeconomic status of participants, Native tribal member, income, and attendance group predict likelihood of Stress Transformation Practice Average Days per Week improvement, with Cox and Snell  $R^2=.206$  results. The results indicated that gender, education, Native tribal member, income, socioeconomic status of participants were not significant predictors of likelihood of Stress Transformation Practice Average Days per Week improvement ( $p > .05$ ). Participants aged 18–30 years old had a decreased likelihood of Stress Transformation Practice Average Days per Week improvement ( $p < .001$ ). Participants in the no segment/control attendance group had a decreased likelihood of Stress Transformation Practice Average Days per Week improvement ( $p < .05$ ). Participants in 3 segments attendance group experienced a decreased likelihood Stress Transformation Practice Average Days per Week improvement ( $p < .05$ ) (see Table 7).

**Table 7***Ordinal Logistic Regression Results: Stress Transformation Practices and Demographics*

Model	Estimate	SE	Wald	df	p
Male	.834	.765	1.187	1	.276
Female	0	.	.	0	.
18–30	-17.168	1.379	155.098	1	.000
31–40	-17.267	.000	.	1	.
41–50	1.343	7022.100	.000	1	1.000
51–60	.305	.000	.	1	.
61–80	.079	.000	.	1	.
>80	1.621	9691.195	.000	1	1.000
prefer not to answer	0	.	.	0	.
High School	17.298	8161.786	.000	1	.998
Some College	-.617	1.656	.139	1	.710
Bachelor's	-.606	1.538	.155	1	.693
Masters	0	.	.	0	.
1 working household member	.967	1.427	.459	1	.498
two working household members	0	.	.	0	.
Native Tribal Member (Yes)	-.321	1.277	.063	1	.802
Native Tribal Member (No)	0	.	.	0	.
Income \$0-55,555	17.572	.000	.	1	.
Income \$55,555-88,000	1.589	1.416	1.260	1	.262
Income \$88,001 or higher	0	.	.	0	.
no segments/control Attendance group	-2.575	1.287	4.006	1	.045
3 segments Attendance group	-2.424	1.099	4.862	1	.027
6 segments Attendance group	.391	1.107	.125	1	.724
7 segments Attendance group	0	.	.	0	.

*Note.* Dependent variable: Stress Transformation Practice Average Days per Week improvement (no, equal, yes).

Ordinal logistic regression was conducted to determine whether gender, age, education, socioeconomic status of participants, Native tribal member, income, and attendance group predict likelihood of HRV/Coherence Score improvement, with Cox and Snell  $R^2 = .320$  results. The results indicated that gender, education, socioeconomic status of participants, Native tribal member, income, and attendance group were not significant predictors of likelihood of HRV/Coherence Score improvement ( $p > .05$ ) (see Table 8).

**Table 8***Ordinal Logistic Regression Results: HRV/Coherence Score and Demographics*

Model	Estimate	SE	Wald	df	p
Male	-31.456	3637.251	.000	1	.993
Female	0	.	.	0	.
18–30	29.154	.000	.	1	.
31–40	-1.907	6911.348	.000	1	1.000
41–50	-15.925	.000	.	1	.
>80	-33.761	7110.992	.000	1	.996
prefer not to answer	0	.	.	0	.
High School	31.456	.000	.	1	.
Some College	14.018	7710.191	.000	1	.999
Bachelor's	29.548	8170.518	.000	1	.997
Masters	0	.	.	0	.
1 working household member	-45.079	7552.274	.000	1	.995
two working household members	0	.	.	0	.
Native Tribal Member (Yes)	46.986	9031.418	.000	1	.996
Native Tribal Member (No)	0	.	.	0	.
Income \$0-55,555	60.609	.000	.	1	.
Income \$55,555-88,000	29.548	7351.275	.000	1	.997
Income \$88,001 or higher	0	.	.	0	.
6 segments Attendance group	0	.	.	0	.

*Note.* Dependent variable: HRV/Coherence Score improvement (no, equal, yes).

**Hypothesis 1b.** The IMB will explain a significant amount of variance in (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily greater than or equal to what is reported in the literature (see Table 9).

**Table 9***Comparing Behaviors in the IMB Model to Other*

Theory Examined	Assessed Behavior	Variable % Changes
Social cognitive theory Health promotion model	Stress reduction practices	18-25%
Behavioral choice theory (APA, 2018; Bandura, 2004, Bradford et al., n.d.; McCraty 2017)	Career goal daily action	14-28%
Health promotion model Transtheoretical theory (APA, 2018; Bradford et al., n.d.; Dispenza (201 McCraty 2017; Odle-Dussear et al., 2018)	HRV/ Coherence daily avg. levels Consciousness frequency improved daily	8-15% 4-11%
Planned behavior theory Health promotion model Health belief model (APA, 2018; Bradford et al., n.d.)	Career goal daily action	4-7%
Theory of conservation of resources (Timmetts & Lutter (2019)	Consciousness frequency improved daily	0-8%

*Tested Theories****Repeated Measures MANOVA Results***

Repeated measures MANOVA was conducted to determine whether there is a significant effect of time (pretest, posttest, 2-week follow up) on Career Activity Days per Week Average, Consciousness Scale Daily Average, Stress Transformation Practice Average Days per Week, and HRV and Coherence Score. The results indicated a significant overall effect of time,  $F(8, 15) = 36.59, p < .001$ , partial  $\eta^2 = .95$ , Wilk's lambda = .05. The results also indicated a significant effect of time on Career Activity Days per Week Average,  $F(2, 44) = 73.00, p < .001$ , partial  $\eta^2 = .77$ . Approximately 77% of the total variance observed in the dependent variables could be attributed to differences in the Career Activity Days per Week Average factor. The mean Career

Activity Days per Week Average increased from pretest ( $M = .93$ ;  $SD = 1.18$ ) to posttest ( $M = .3.31$ ;  $SD = 1.74$ ) and 2-week follow up ( $M = 4.82$ ;  $SD = 1.67$ ). The results also indicate a significant effect of time on Consciousness Scale Daily Average,  $F(1.27, 28.09) = 134.05$ ,  $p < .001$ , partial  $\eta^2 = .86$ . Approximately 86% of the total variance observed in the dependent variables can be attributed to differences in the Consciousness Scale Daily Average factor. The mean Consciousness Scale Daily Average increases from pretest ( $M = 4.86$ ;  $SD = 2.24$ ) to posttest ( $M = 9.68$ ;  $SD = 3.14$ ) and 2-week follow up ( $M = 12.02$ ;  $SD = 3.70$ ). The results also indicate a significant effect of time on Stress Transformation Practice Average Days per Week,  $F(1.55, 34.27) = 94.67$ ,  $p < .001$ , partial  $\eta^2 = .81$ . Approximately 81% of the total variance observed in the dependent variables could be attributed to differences in the Stress Transformation Practice Average Days per Week factor. The mean Stress Transformation Practice Average Days per Week increased from pretest ( $M = .66$ ;  $SD = .91$ ) to posttest ( $M = 3.43$ ;  $SD = 1.57$ ) and 2-week follow up ( $M = 4.41$ ;  $SD = 1.51$ ). The results also indicated a significant effect of time on HRV/Coherence Score,  $F(1.06, 23.39) = 47.73$ ,  $p < .001$ , partial  $\eta^2 = .69$ . Approximately 69% of the total variance observed in the dependent variables could be attributed to differences in the HRV/Coherence factor. The mean HRV and Coherence Score increases from pretest ( $M = 1.73$ ;  $SD = .76$ ) to posttest ( $M = 4.49$ ;  $SD = 1.62$ ) and 2-week follow up ( $M = 4.73$ ;  $SD = 1.57$ ) (see Table 10)

**Table 10**

*Repeated Measures MANOVA Results*

Source	Measure	Type III SS	df	MS	F	p	Partial $\eta^2$
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time	Career activity days per week average	186.98	2	93.49	73.00	< .001	.77
	Consciousness scale daily average	1339.50	1.27	1048.88	134.05	< .001	.86
	Stress transformation practice average days per week	213.68	1.55	137.14	94.67	< .001	.81
	HRV and coherence score	126.13	1.06	118.58	47.73	< .001	.69
Error (time)	Career activity days per week average	56.34	44	1.28			
	Consciousness scale daily average	219.82	28.09	7.82			
	Stress transformation practice average days per week	49.65	34.27	1.44			
	HRV and coherence score	58.13	23.39	2.48			

Approximately 77% of the total variance observed in the dependent variables could be attributed to differences in the Career activity days per week average factor. This increase was greater than Behavior variance explained by other models for Career activity days per week average (4%–28%). Approximately 86% of the total variance observed in the dependent variables could be attributed to differences in the Consciousness Scale Daily Average factor. It was greater than Behavior variance explained by other models for Consciousness Scale Daily Average (0%–11%). Approximately 81% of the total variance observed in the dependent variables could be attributed to differences in the Stress Transformation Practice Average Days per Week factor. It was greater than Behavior variance explained by other models for Stress Transformation Practice Average Days per Week (18%–25%). Approximately 69% of the total variance observed in the dependent variables could be attributed to differences in



the HRV/Coherence factor. It was greater than Behavior variance explained by other models for HRV and Coherence (8%–15%) (see Table 11)

**Table 11**

*Comparing Variance From IMB Model to Other Models*

Assessed behavior	Behavior variance explained by IBM model	Behavior variance explained by other models
Stress reduction practices	77%	18-25%
Career goal daily action	86%	4-28%
HRV and Coherence daily avg. levels	81%	8-15%
Consciousness frequency improved daily avg.	69%	0-11%

**Hypothesis 1c.** Those who acquire more information understanding, are well motivated, and acquire behavioral skills will be more likely to improve in (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily, compared to those who are less motivated or less understanding of the information presented in the QW program.

***Ordinal Logistic Regression***

Ordinal logistic regression was conducted to determine whether information understanding improvement and motivation improvement predict Career Activity Days per Week Average improvement, with Cox and Snell  $R^2 = .082$  results. Information Understanding improvement and Motivation improvement are not significant predictors of Career Activity Days per Week Average improvement ( $p > .05$ ) (see Table 12).

**Table 12***Ordinal Logistic Regression Results: Career Activity*

Dependent Variable	Estimate	SE	Wald	df	p
Information understanding equal	-1.962	1.196	2.691	1	.101
Information understanding improved	0 <sup>a</sup>	.	.	0	.
Motivation equal	-1.962	1.196	2.691	1	.101
Motivation improved	0 <sup>a</sup>	.	.	0	.

*Note.* Dependent variable: Career Activity Days per Week Average improvement (no, equal, yes).

Ordinal logistic regression was conducted to determine whether information understanding improvement and motivation improvement predict Consciousness Scale Daily Average improvement, with Cox and Snell  $R^2 = .012$  results. Information understanding improvement and motivation improvement were not significant predictors of Consciousness Scale Daily Average improvement ( $p > .05$ ) (see Table 13).

**Table 13***Ordinal Logistic Regression Results: Consciousness Scale Daily Avg.*

Dependent Variable	Estimate	SE	Wald	df	p
Information understanding equal	-.677	1.201	.317	1	.573
Information understanding improved	0 <sup>a</sup>	.	.	0	.
Motivation equal	-.677	1.201	.317	1	.573
Motivation improved	0 <sup>a</sup>	.	.	0	.

*Note.* Dependent variable: Consciousness Scale Daily Average improvement (no, equal, yes).

Ordinal logistic regression was conducted to determine whether information understanding improvement and motivation improvement predict Stress Transformation

Practice Average Days per Week improvement, with Cox and Snell  $R^2 = .082$  results.

Information understanding improvement and motivation improvement were not significant predictors of Stress Transformation Practice Average Days per Week improvement ( $p > .05$ ) (see Table 14).

**Table 14**

*Ordinal Logistic Regression Results: Stress Transformation Practices*

Dependent Variable	Estimate	SE	Wald	df	p
Information understanding equal	-1.962	1.196	2.691	1	.101
Information understanding improved	0 <sup>a</sup>	.	.	0	.
Motivation equal	-1.962	1.196	2.691	1	.101
Motivation improved	0 <sup>a</sup>	.	.	0	.

*Note.* Dependent variable: Stress Transformation Practice Average Days per Week

improvement (no, equal, yes).

No results pertaining to the ordinal logistic regression for the dependent variable, HRV and Coherence Score, were available as this analysis could not be conducted in SPSS. This limitation arose due to the Nagelkerke R-square statistic yielding a value of zero, consequently rendering all estimations as zeroes.

### **Research Question 2**

Are improvements of the dependent variables motivation and information understanding sustainable at the 2-week follow-up?

#### ***Repeated Measures ANOVA Results***

Hypothesis 2. Motivation and information understanding improvements will be sustainable at the 2-week follow-up.

Repeated measures ANOVA was conducted to determine whether there was a significant effect of time (pretest, posttest, 2-week follow-up) on Information understanding. The results of repeated measures ANOVA with Greenhouse-Geisser correction were significant,  $F(1.45, 62.49) = 295.63, p < .001, \text{partial } \eta^2 = .87$ . The mean Information understanding increased from pretest ( $M = 2.10; SD = 1.13$ ) to posttest ( $M = 6.52; SD = 1.55$ ) and 2-week follow up ( $M = 7.18; SD = 1.48$ ) (see Table 15).

**Table 15**

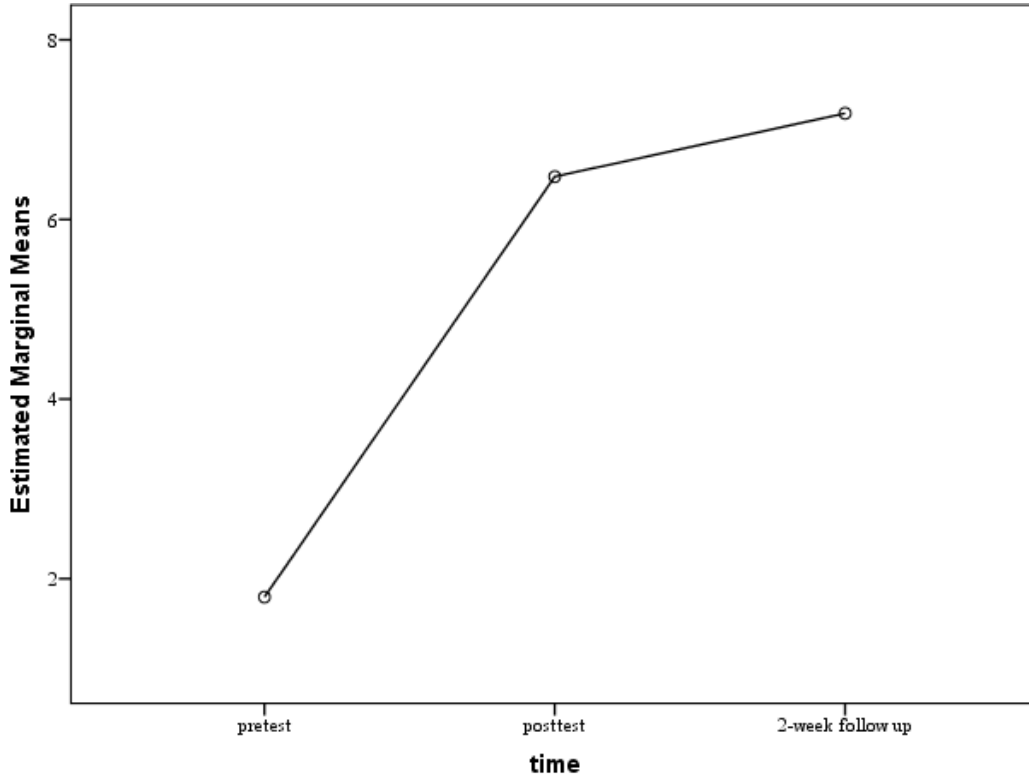
*Repeated Measures ANOVA Results: Information Understanding*

Source		Type III			<i>F</i>	<i>p</i>	Partial $\eta^2$
		<i>SS</i>	<i>df</i>	<i>MS</i>			
time	Greenhouse-Geisser	754.28	1.45	518.95	295.63	< .001	.87
Error(time)	Greenhouse-Geisser	109.71	62.49	1.75			

*Note.* Dependent variable: Information understanding

**Figure 3**

*Means of Information Understanding by Time*

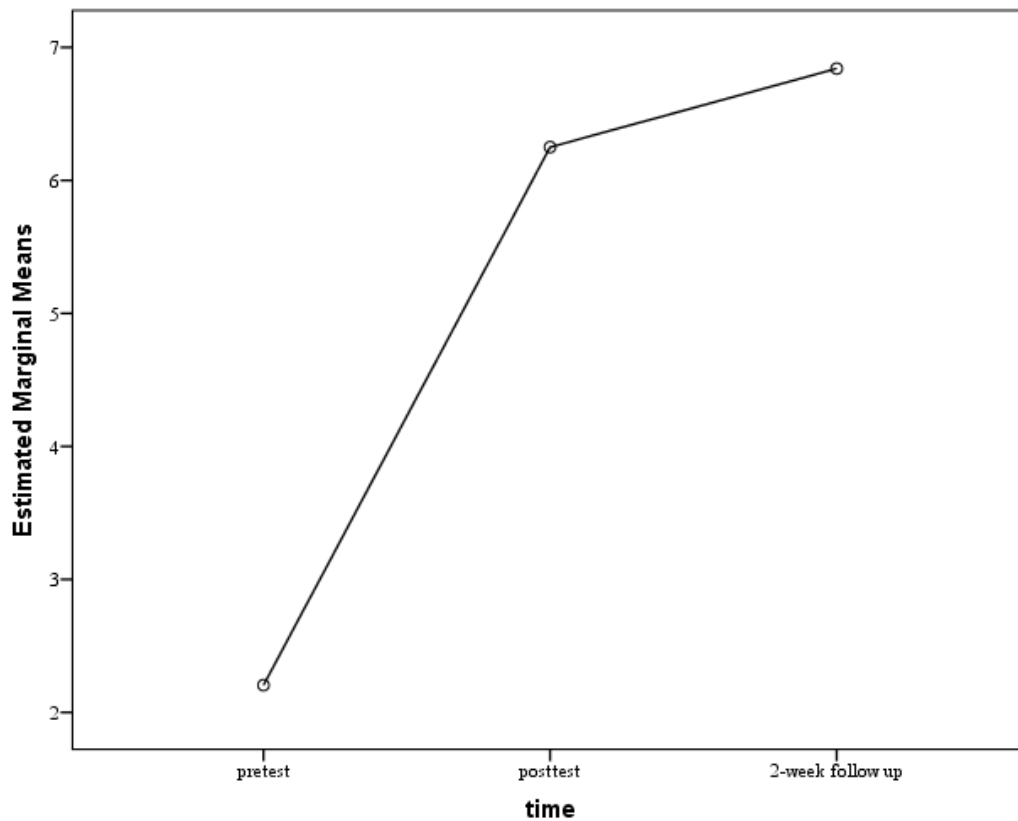


Repeated measures ANOVA was conducted to determine whether there is a significant effect of time (pretest, posttest, 2-week follow-up) on Motivation. The results of repeated measures ANOVA with Greenhouse-Geisser correction were significant,  $F(1.42, 60.93) = 235.69, p < .001, \text{partial } \eta^2 = .85$ . The mean Motivation increased from pretest ( $M = 2.52; SD = 1.14$ ) to posttest ( $M = 6.22; SD = 1.52$ ) and 2-week follow up ( $M = 6.84; SD = 1.35$ ) (see Table 16).

**Table 16***Repeated Measures ANOVA Results: Motivation*

Source		Type III SS	df	MS	F	p	Partial $\eta^2$
time	Greenhouse-Geisser	560.42	1.42	395.53	235.69	< .001	.85
Error(time)	Greenhouse-Geisser	102.24	60.93	1.68			

*Note.* Dependent variable: Motivation.

**Figure 4***Means of Motivation by Time*

## Chapter 5: Discussion and Conclusion

Stress transformation, consciousness education, and career reinvention programs are resources to help reduce financial and career anxiety and improve stress-related health measurements. Findings from a meta-analysis and systematic reviews suggest that stress transformation programs with broader health promotion seem to be more effective in changing health-related behaviors and reducing stress-related health challenges in the area of career and financial security. Broader health promotion includes consciousness education, stress-transformation technique activity, partner and social group support, and defining passion-based career and financial goal daily growth activities (Alexander et al., 2017; Wei & Chen, 2014). Health promotion programs based on a theoretical framework are more effective and sustainable, as reflected in published studies (Bradford et al., n.d.; Glanz et al., 2009). The variation of easily accessible stress prevention, consciousness education, and career and financial goal programs is large. Some are based on theoretical frameworks while others are not (APA, 2018; Bandura, 2004; Bradford et al., n.d.).

Different theoretical frameworks are used for stress transformation, consciousness education, and career and financial reinvention programs. One of the most widely used theories is the SCT. SCT interventions used for stress-related negative health prevention and career and financial reinvention programs are not standardized. While some SCT interventions use training of new skills, some use only the construct of self-efficacy. Other behavioral change models, such as the theory of planned behavior, the transtheoretical model, the health belief model, the health promotion model, and protection motivation theory, are also found to use many different constructs, but each

lacks consistency in the interventions used for stress-related negative health prevention and career and financial reinvention programs.

Using a wide variation of theoretical constructs, outcome measures are reported in a variety of ways. For example, some programs report passion-based career and financial goal activity as the focus, while others use stress transformation practices for a minimum 30 minutes daily. Some programs focus only on financial budgeting while others use a career and financial reinvention program. Since financial and career anxiety continue to be a major national health problem, efforts should be made to refine current programs for greater effectiveness.

Due to the complexity of the SCT, theory of planned behavior, and other theories examined, there are barriers to the implementation of online, stress transformation, consciousness education, and career or financial reinvention programs (Bradley, 2006; Chang et al., 2014). These theories cannot be easily translated into accessible, professional programs. To overcome this problem, a possible solution is to explore a theoretical model that has been assessed for ease of adaptability, understanding, and training, and that is empirically supported.

The IMB skills model is a theoretical framework that can be used to shape online, stress transformation, consciousness education, and career or financial reinvention programs. This model was specifically designed to be easily translated into health promotion programs (W. A. Fisher et al., 2003). To address negative health outcomes, there is empirical evidence suggesting this model is effective for preventing and reducing negative stress-related health in adults (Arndt et al., 2009; Chang et al., 2014; Kane,



2008; Osborn et al., 2010). According to the designers of the IMB model, when complex behaviors require individuals to be well-informed, well-motivated, and have the necessary objective and perceived skills to engage in the complex behaviors, the IMB model design includes all these constructs deemed influential in health behavior adherence (W. A. Fisher et al., 2003).

In this study, secondary data from the stress transformation, consciousness education, and career or financial reinvention QW program was used to test the utility of the IMB model as a framework for stress transformation, consciousness education, and career or financial reinventions. The curriculum for the QW online program was developed by Resilient Health Institute, Infinity Healing, and Healing Hearts business owners and instructors. The QW program curriculum is based on professional expertise and training specific to the areas of information, motivation, and behavioral skills taught in the QW program, based on the IMB model, a theoretical framework (La Torre et al., 2018).

### **Discussion and Conclusions for Tested Hypotheses**

Hypothesis 1A: IMB variables will be most influential in the improvement of the four health behavior practices prescribed compared to independent variables.

*Hypothesis 1a.* IMB variables will be most influential in the improvement of (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily compared to independent variables.

Hypothesis 1a tests for predictive demographic and attendance independent variables, against the behavioral skills prescribed in the IMB-based QW program. The IMB model QW program does not show any significant demographic predictors of any of the behavioral skills prescribed. The attendance of information and motivation sessions of the QW program (3 sessions group), showed a decrease in the likelihood of improved scores on the consciousness scale and stress transformation practices. The same is true for the control group attending no sessions of the QW program. Adding three to four more sessions, all teaching behavioral skills (six or seven sessions total) does reflect higher scores on all behavioral skills from pre to post and 2-week follow-up scores, though not significantly.

The IMB model is not supported by this test of demographics to IMB constructs examined in a significant way. Overall, the frequency of high scores increased from pre to post/ 2-week similarly across participants from different demographic groups, but no tested demographics were significant predictors of likelihood of higher scores in the four behavioral skills measured against demographics of gender, age, education, Native member, income level, and socioeconomic status. This study suggests that an IMB-based career and financial anxiety prevention program is beneficial to participants across different demographic characteristics, though more examination over time and repeated program offerings may provide more data to test correlations and causality of the QW program for added skill lessons coupled with information and motivation workshops. There were not any participants from the 1, 2, 4, or 5 segment participation in the 2-week follow-up assessment. The majority of participants attending six to seven segments of the

intervention learned more and had better motivation compared to participants who attended three or less sessions of the intervention.

### **Behavioral Skills Improvement Highlights by Demographics and Attendance**

Ordinal logistic regression was conducted to determine whether gender, age, education, socioeconomic status of participants, Native tribal member, income level, and attendance group predict the likelihood of Career Activity Days per Week Average improvement, and Cox and Snell  $R^2 = .206$  results. The results indicate that gender, education, socioeconomic status of participants, Native tribal member status, and income are not significant predictors of likelihood of Career Activity Days per Week Average improvement ( $p > .05$ ). If participants are 18–30 years old, it will decrease likelihood of Career Activity Days per Week Average improvement ( $p < .05$ ). If participants are in no segment/control attendance group, it will decrease likelihood of Career Activity Days per Week Average improvement ( $p < .05$ ). If participants are in 3 segments attendance group, it will decrease likelihood of Career Activity Days per Week Average improvement ( $p < .05$ ).

Consciousness Scale Daily Average improvement results, and Cox and Snell  $R^2 = .187$ . The results indicate that gender, age, education, socioeconomic status of participants, Native tribal member, income, are not significant predictors of likelihood of Consciousness Scale Daily Average improvement ( $p > .05$ ). If participants are in no segment/control attendance group, it will decrease likelihood of Consciousness Scale Daily Average improvement ( $p < .05$ ). If participants are in 3 segments attendance group, it will decrease likelihood Consciousness Scale Daily Average improvement ( $p < .05$ ).

Demographics were examined to predict the likelihood of Stress Transformation Practice Average Days per Week improvement. and Cox and Snell  $R^2 = .206$  results. The results indicate that gender, education, Native tribal member, income, socioeconomic status of participants are not significant predictors of likelihood of Stress Transformation Practice Average Days per Week improvement ( $p > .05$ ). If participants are 18–30 years old, it will decrease likelihood of Stress Transformation Practice Average Days per Week improvement ( $p < .001$ ). If participants are in no segment/control attendance group, it will decrease likelihood of Stress Transformation Practice Average Days per Week improvement ( $p < .05$ ). If participants are in 3 segments attendance group, it will decrease likelihood Stress Transformation Practice Average Days per Week improvement ( $p < .05$ ).

Demographics were tested to predict likelihood of HRV and coherence score improvement. and Cox and Snell  $R^2 = .320$  results. The results indicate that gender, education, socioeconomic status of participants, native tribal member, income, and attendance group are not significant predictors of the likelihood of HRV and coherence score improvement ( $p > .05$ ).

### ***Hypothesis 1b***

Hypothesis 1b was that the IMB will explain a significant amount of variance in (a) daily average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily, greater than or equal to what is reported in the literature.

Repeated measures MANOVA was conducted to determine whether there is a significant effect of time (pretest, posttest, 2-week follow up) on Career Activity Days per Week Average, Consciousness Scale Daily Average, Stress Transformation Practice Average Days per Week, and HRV and Coherence Score. The results indicate a significant overall effect of time,  $F(8, 15) = 36.59, p < .001, \text{partial } \eta^2 = .95, \text{Wilk's } \lambda = .05$ . The results also indicate a significant effect of time on Career Activity Days per Week Average,  $F(2, 44) = 73.00, p < .001, \text{partial } \eta^2 = .77$ . Approximately 77% of the total variance observed in the dependent variables can be attributed to differences in the Career Activity Days per Week Average factor. The mean Career Activity Days per Week Average increases from pretest ( $M = .93; SD = 1.18$ ) to posttest ( $M = .3.31; SD = 1.74$ ) and 2-week follow-up ( $M = 4.82; SD = 1.67$ ). The results also indicate a significant effect of time on the Consciousness Scale Daily Average,  $F(1.27, 28.09) = 134.05, p < .001, \text{partial } \eta^2 = .86$ . Approximately 86% of the total variance observed in the dependent variables can be attributed to differences in the Consciousness Scale Daily Average factor. The mean Consciousness Scale Daily Average increases from pretest ( $M = 4.86; SD = 2.24$ ) to posttest ( $M = 9.68; SD = 3.14$ ) and 2-week follow up ( $M = 12.02; SD = 3.70$ ). The results also indicate a significant effect of time on Stress Transformation Practice Average Days per Week,  $F(1.55, 34.27) = 94.67, p < .001, \text{partial } \eta^2 = .81$ . Approximately 81% of the total variance observed in the dependent variables can be attributed to differences in the Stress Transformation Practice Average Days per Week factor. The mean Stress Transformation Practice Average Days per Week increases from pretest ( $M = .66; SD = .91$ ) to posttest ( $M = 3.43; SD = 1.57$ ) and 2-week follow up ( $M =$

4.41;  $SD = 1.51$ ). The results also indicate a significant effect of time on HRV and Coherence Score,  $F(1.06, 23.39) = 47.73, p < .001$ , partial  $\eta^2 = .69$ . Approximately 69% of the total variance observed in the dependent variables can be attributed to differences in the HRV and Coherence factor. The mean HRV and Coherence Score increases from pretest ( $M = 1.73$ ;  $SD = .76$ ) to posttest ( $M = 4.49$ ;  $SD = 1.62$ ) and 2-week follow up ( $M = 4.73$ ;  $SD = 1.57$ ).

Approximately 77% of the total variance observed in the dependent variables can be attributed to differences in the Career Activity Days per Week Average factor. It is more than Behavior variance explained by other models for Career Activity Days per Week Average (4%–28%). Approximately 86% of the total variance observed in the dependent variables can be attributed to differences in the Consciousness Scale Daily Average factor. It is more than Behavior variance explained by other models for Consciousness Scale Daily Average (0%–11%). Approximately 81% of the total variance observed in the dependent variables can be attributed to differences in the Stress Transformation Practice Average Days per Week factor. It is more than Behavior variance explained by other models for Stress Transformation Practice Average Days per Week (18%–25%). Approximately 69% of the total variance observed in the dependent variables can be attributed to differences in the HRV and Coherence factor. It is more than Behavior variance explained by other models for HRV and Coherence (8%–15%).

### ***Hypothesis 1c***

Hypothesis 1c was that those who acquire more information understanding, are well motivated, and acquire behavioral skills will be more likely to improve in (a) daily

average hertz score on states of consciousness graph (electromagnetic hertz scale score), (b) HRV and coherence score, (c) stress-transformation daily practice occurrences, and (d) passion-based career activity steps taken daily compared to those who are less motivated or less understanding of the information presented in the QW program.

Ordinal logistic regression was conducted to determine whether information understanding improvement and motivation improvement predict Career Activity Days per Week Average improvement and Cox and Snell  $R^2 = .082$  results. Information understanding improvement and motivation improvement are not significant predictors of Career Activity Days per Week Average improvement ( $p > .05$ ).

Ordinal logistic regression was conducted to determine whether information understanding improvement and motivation improvement predict Consciousness Scale Daily Average improvement, and Cox and Snell  $R^2 = .012$  results. Information understanding improvement and motivation improvement are not significant predictors of Consciousness Scale Daily Average improvement ( $p > .05$ ).

Ordinal logistic regression was conducted to determine whether information understanding improvement and motivation improvement predict Stress Transformation Practice Average Days per Week improvement, and Cox and Snell  $R^2 = .082$  results. Information understanding improvement and motivation improvement are not significant predictors of Stress Transformation Practice Average Days per Week improvement ( $p > .05$ ).

No results pertaining to the ordinal logistic regression for the dependent variable, HRV and Coherence Score are available as the analysis could not be conducted in SPSS.

This limitation arose due to the Nagelkerke R-square statistic yielding a value of zero, consequently rendering all estimations as zeroes.

### ***Hypothesis 2***

Hypothesis 2, that improvements in motivation and information understanding will be sustained or improved at the 2-week follow-up, is supported in this study. Motivation and information understanding were significantly higher at the post-workshop and 2-week follow-up compared to pre-baseline assessment results. To sustain stress transformation and financial anxiety prevention behaviors over many years, participants and their social support system members may need reinforcing interventions. The 2-week follow-up evaluation included 44 participants; no participants only took 1, 2, 4, or 5 segments so that was not represented. Further research with a larger sample is necessary to verify the sustainability of an IMB-based financial and career anxiety prevention online program for all participants from tribal members to all working-age adults.

### **Overall Strengths and Limitations**

SCT and the theory of planned behavior, along with other behavioral-change theories, are commonly used for stress transformation, consciousness education, and career and financial reinvention programs. These theories are complex, meaning that many career or stress-related programs do not address all elements within a given theoretical framework (Streicher, 2017; Tibbetts & Lutter, 2019). The IMB Model is specifically designed for ease of translating behavior skills, information, and motivation in one intervention program (W. A. Fisher et al., 2003). IMB theory has been used in this program to effectively increase passion-based career and financial reinvention goal



activity and healthy states of consciousness, high HRV and coherence daily averages, and stress-transformation practices in working-aged adults, including Native tribal members. However, the utility of the IMB has not been evaluated for these areas over the long term. Future research in this area is recommended. Additionally, as this study focused on individuals from a specific geographic area, it would be useful for future researchers to test this model in other geographic spaces, and with individuals from untested cultural groups. The usefulness of the IMB in improving motivation and information understanding among working-aged Native tribal members and adult non-tribal members in the Pacific Northwest was established. The IMB-modeled QW program encouraged new health behaviors that were easy for participants to incorporate, showing this study does provide a foundation for improving functioning in these areas.

Very few studies use a theoretical framework to explain variance in stated career and financial goal activity, stress-transformation practices, consciousness states of well-being, and HRV scores combined as a teachable program, though there are many studies evaluating the effectiveness of stress prevention online programs. Most studies explain variance in career development, financial budgeting, or stress reduction among working-aged adults. Questionnaires used to assess theoretical frameworks such as the theory of planned behavior and SCT are appropriate for the practice of professional development. This study explains variance in passion-based career and financial reinvention goal activity, healthy states of consciousness, HRV and coherence-improving techniques, and stress-transformation tools and techniques among tribal members and working adults in the North America, an approach not previously found in the published literature.

The use of secondary data has some limits to the amount of support that can be provided for the IMB model in this study. The effects of social support were not evaluated, for example. The sample for the 2-week follow-up analysis was very small ( $n=44$ ), limiting the ability to link causation or correlation of this study as a generalization. With a larger sample size and more time, future studies would be possible for long-term evaluations. Passion-based career and financial goal activity data, stress-transformation practices, and consciousness scale daily averages were obtained via self-reports; heart rate variability and coherence measuring devices were not used by all participants. The six surveys self-reported in the QW program may be subject to social desirability bias. In this study, the participants were notified that their quantitative survey responses would be double-blinded from the instructors and the researcher, to offset the risk of desirability bias. In addition, this primary study did use a control group; meaning that causality could have been examined in this study with caution had the sample size been larger. Repeated data tests and larger groups along with more control measures will assist to further test for causality.

### **Conclusions**

Overall, this study's findings support the IMB model for significant and sustainable changes for career and financial reinvention supporting behavior motivation (measured by frequency to practice and take action) and information understanding (measured by knowledge of materials reflected in test answers). The independent variables of age, gender, and socioeconomic status did not significantly affect motivation or information understanding levels. Overall, the odds of taking action toward career and

financial goals, practicing stress-transformation tools and techniques daily, and daily average states of consciousness and HRV scores increased with higher levels of information understanding and motivation information workshop participation. The effects of behavioral skills and social support and partner engagement could be explored in future studies and results may further support the IMB model as an appropriate framework for online, consciousness education and stress transformation for financial anxiety programs for working-aged adults.

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Appendix: Overview of Quantum Wellness Program

## Quantum Wellness Program:

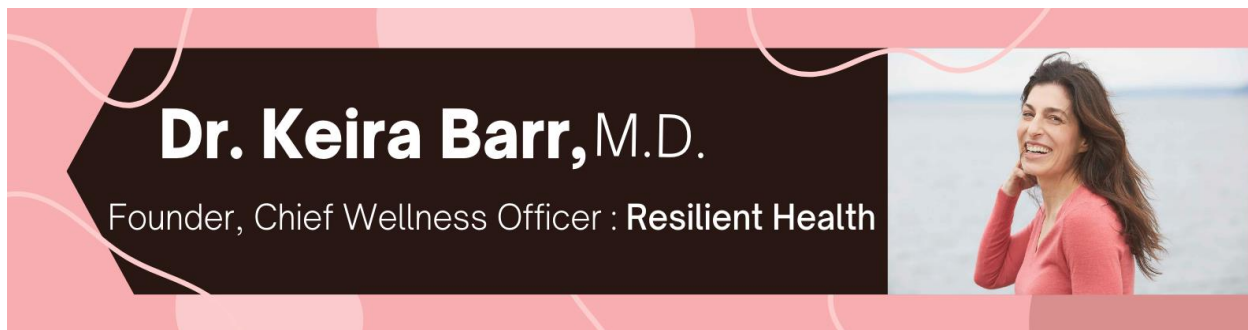
2 2 - D a y s t o  
E a s y C a r e e r  
a n d F i n a n c i a l  
R e i n v e n t i o n





The *Quantum Wellness Program: 22-Days to Easy Career and Financial Reinvention* is a new program designed to address chronic stress related to financial and career insecurities for working-aged women and Native tribal members of the United States. Eventually, this program will be offered online and throughout North and South America for a combined global health mission of the program's instructors.

## Instructors of Program

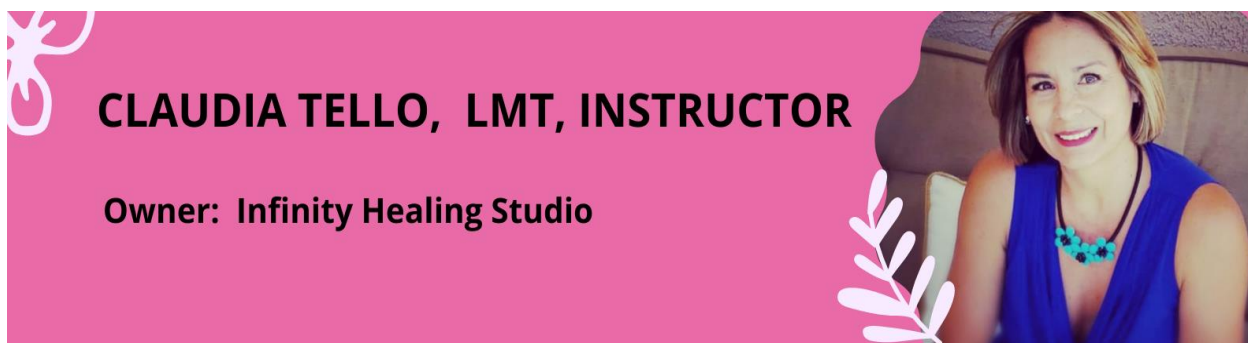
Three professional women, and one assistant, will present a combined program based on the work each instructor independently teaches, in addition to using books from other authors as the focus of each lesson in this quantum wellness program.




**Dr. Keira Barr, M.D.**  
Founder, Chief Wellness Officer : Resilient Health

A banner for Dr. Keira Barr, M.D. The background is light pink with white decorative swirls. On the left, a dark brown arrow-shaped box contains her name and title in white text. On the right, there is a photograph of Dr. Barr, a woman with long brown hair wearing a pink top, smiling and looking towards the right.

**ANNE UEMURA, PH.D.**  
MAP CERTIFIED COACH,  
AUTHOR, LICENSED  
THERAPIST/PSYCHOLOGIST

A banner for Anne Uemura, Ph.D. The background is light blue with dark blue geometric shapes. On the left is a portrait of Anne Uemura, an older woman with short grey hair wearing a dark lace top. On the right, her name and credentials are listed in dark blue text.

**CLAUDIA TELLO, LMT, INSTRUCTOR**  
Owner: Infinity Healing Studio

A banner for Claudia Tello, LMT, Instructor. The background is bright pink with white decorative elements like a stylized deer head and a leaf. On the left, her name and title are in bold black text, followed by her role as owner of Infinity Healing Studio. On the right is a photograph of Claudia Tello, a woman with blonde hair wearing a blue top and a necklace, smiling.

### **Quantum Wellness Program Outline**

The 22-day reinvention program design is based on the Information-Motivation-Behavioral Skills (IMB) Model. This program will be repeated after the initial workshop offerings. As some of the presentation details are worked out while preparing for and presenting the first workshop, the program leaders are offering their first full program for free while they test the efficacy of their program through collected quantitative surveys. The three combined instructors wish to examine the segments of the program to look for the best lessons and methods of instruction to help their clients address chronic stress related to money and career insecurities.

The three instructors also want to test to see if the behavioral skills, live practice of tools and techniques from the lessons they teach in the book review, are beneficial as live practice time, compared to the participants in the read-only education sections.

Information-Motivation-Behavioral Skills (IMB) Model will be outlined for this program as such:

- (1) Information and motivation sections are limited to independent reading and group book review only. Segments 1, 2, and 3 cover three group book reviews supportive of the goals of this program.
- (2) Behavioral Skills section, Segments 4, 5, and 6, for:
  - (a) Live (Zoom) skills practice, all directly from the education presented in the assigned required materials.

- (b) Trials for the 22-day program (all demonstrated as group exercise practices led by the instructors) are from the reading materials reviewed for testing consistency.
- (c) A biofeedback stress-transformation tool option, Segment 7 participants only.

The program is focused on presenting a fast, easy-to-follow combination of reading materials and skills practices to address the problem of chronic financial- and career-related stress. In particular, the program leaders want to show that chronic stress reduces some health measures, which then leads to lower levels of energy, clarity, and motivation to take positive action with financial and career goals. The 22-day program offers potential solutions for the participants to follow to improve their experienced stress levels related to money and careers, as well as life in general. Each participant will fill out an exercise related to a passion-based career plan to refer to throughout the workshops and practices. That exercise is titled “*Treasure Hunt: Finding Your GOLD from Within.*” This exercise is an independent, self-completion of that exercise for each participant and optional to share in the portal or with groups; otherwise kept personal.

The common subjects each program instructor currently teaches in their individual business practices include consciousness education and stress transformation. Each instructor teaches mind-body practices independently to their patients/clients.

The unique business teachings not common to all three instructors currently include:

- (1) Financial transformation, only directly specified by one instructor;

- (2) Setting intentions, only directly specified by one instructor;
- (3) Medical, stress-related outcomes and health challenges to productivity and life goals. This same instructor also includes a biofeedback tool lesson for stress management with their private practice patients.

Their combined lessons may help improve levels of health-related stress, in work and home life, for women and Native tribal members currently experiencing low levels of motivation and high levels of stress.

### **Testing the Program**

To test this program for the efficacy of the lessons offered, the program instructors have decided to recruit volunteers willing to purchase and read the three books on the supplies list and actively participate in the program as volunteers. The future offering of the Quantum Wellness Program will include a fee to participate in addition to purchasing the reading materials and biofeedback tools. During the investigation of the program, the reading materials and optional biofeedback tool are available through an offered scholarship to ensure participants from all social and economic levels can participate as a randomly selected population.

Self-selected, volunteer, working-aged women, men, and Native tribal members will be accepted into the initial *Quantum Wellness Program: 22-Days to Easy Career and Financial Reinvention* based on the inclusion survey application via a confidential portal set up just for this program, for pre- and post-segment, confidential survey collection. After the 22-day program, the three instructors may also promote independent services and workshops to the volunteers of this program and provide independent contact



information on the final day of the program. All questions and answers for the program material will be directed to the appropriate instructors, or the program coordinator/assistant, from the confidential hub, during the 22-day program to keep all communication in one central location.

All participants will be told about all three of the learning materials required to participate, which program instructors believe, combined, are better than each of the three areas taught separately. This concept is being tested during the initial offering of the *Quantum Wellness Program: 22-Days to Easy Career and Financial Reinvention*.

#### 7 Segments to the total program

(3) Book reviews only (approximately 2 hours per book review, total 6 hours, Days 1-8).

(3) Behavioral skills: Exercises from reading material and practice in live segments directly from the books and companion guidebooks/workbooks/related PDFs of the three books reviewed first. These behavioral skills online workshops will be presented as three, two-hour segments (online, all using Zoom.com) for practice group sessions, Days 9 through 22.

(1) Inner Balance tool practice (one hour total group instruction, Day 1, biofeedback tool app has full instructions for use as well). This optional tool will be used throughout Day 1-Day 22, with a 2-minute session on coherence and heart rate variability measures, reported confidentially to the portal, for pre- and post-workshop comparison.

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7 Segments plus an introduction make up the entirety of the *Quantum Wellness Program: 22-Days to Easy Career and Financial Reinvention*.

Dr. Keira Barr leads Segments 1, 4, and 7; Claudia Tello leads Segments 2 and 5; Dr. Anne Uemura leads Segments 3 and 6.

Segments 1 and 4 (I and IV), Dr. Keira Barr, M.D., Instructor.

Based on the book, *Transforming Stress: The HeartMath Solution for Relieving Worry, Fatigue, and Tension* (Childre and Rozman, 2005). Dr. Barr is certified as a HeartMath Health Intervention Practitioner and a licensed M.D. She will lead Segment 1, book review, and demonstrate the book's stress transformation exercises for group practice during Segment 4.

Segment 2 and 5 (II and V) Claudia Tello, LMT, Instructor.

Based on the written course, *Living The Field: Science of The Field* and *Living The Field: Zero-Point Perception PDF* (McTaggart, n.d.). Ms. Tello will provide an online review of these two PDFs required to participate in Segment 2. She will also present exercises online with the group participants of Segment 5, based on two additional PDFs from the *Living The Field* course (McTaggart, n.d.). Those PDFs are titled *Living The Field: Directed Intentions*, and *Living The Field: Native Traditions* (McTaggart, n.d.).

Segment 3 and 6 (III and VI) Dr Anne Uemura, Instructor.

Based on the book, *Abundance On Demand: Five Easy Steps to Master the Inner Game of Money* (Streicher, 2017). Segment 3 will be a group book review led by the instructor. Segment 6 will be the online demonstration and group practice of the exercises in the book and *Abundance On Demand* companion PDF (Streicher, 2018).

Segment 7 (VII) Dr. Keira. Inner Balance Tool.

This 1-hour online segment will be only for questions using the Inner Balance biofeedback tool, sold by HeartMath Institute. The tool works with a cell phone Inner Balance application and a heart-mind-pulse monitoring device. The tool comes with video and online instructions by HeartMath Institute. Dr. Barr is certified to teach the use of this tool through the HeartMath Health Intervention Practitioner Certification program.

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#### **Four Test Groups**

**Group D:** D-Don't do anything with any Zoom sessions. Control group. (Provided reading materials list only. Independent study optional to Group D- no group participation.)

**Group C:** Cram through the book reviews via Zoom. Attend two or three book club-like reviews only. No exercise practice or demonstration will be included in the book review, education, or motivation segments.

**Group B:** Behavioral Skills and written exercises/journaling directly from required books and companion PDFs (no outside practices or exercises). Group B joins Group C in all book reviews before attending any online behavioral skills workshop segments. Behavioral Skills include: (Seg. IV) Practicing Quick Coherence. Freeze Frame. Heart Lock In, answer some probing questions asked in the book, Transforming Stress and/or the 10-Practices PDF; (Seg. V) Directed Intention 13 steps Native Tradition PDF exercises review and group practice; (Seg. VI) Money Blueprint, MAP on the Go, MAP clearing intro, and written exercises from the assigned books/PDFs. So, the behavioral

skills practice and group time in Zoom is to fill in blanks in journals or PDFs and quickly practice subscribed exercises based on the time allotted.

**Group A:** All workshops. Group A will participate in the three book reviews, plus three behavioral skills and journaling workshops with Group B. Group A will also practice using the Inner Balance tool throughout the 22-day program.

### **Student Materials List by Group**

(Groups A, B, and C): Purchase the Transforming Stress book (Childre and Rozman, 2005), the Abundance On Demand book (Streicher, 2017), and the Living The Field Course assigned PDFs (McTaggart, n.d.). Participants buy their books/ PDFs in advance (from HeartMath.com, LynnMcTaggart.com, MAPcoachingInstitute.com, Amazon.com, or Audible.com).

(Groups A and B) Students go to (i) HeartMath.com/10-practices to get a free pdf, 10-Practices stress-related booklet with some journal space in it; (ii) download the AOD companion guidebook; (iii) purchase Directed Intention and Native Traditions PDFs.

(Group A) Inner Balance tool (8 on loan from Lift Others Up non-profit). Information for Dr. Keira to share a link or show link video(s) in 1-hour, Group A quick review of biofeedback tool only segment:

<https://www.heartmath.com/support/knowledgebase/?article=kA180000000XbaQCAS&t=emWave+Pro+Plus+Assessment+Assistance>

### **Group Participation Overview**

Group D is provided the reading materials list. They may buy and read the books independently.

Group C only buys books/PDFs and reads them in advance/during the program.

Group B also does everything Group C does, and they also join the workshops for tools and techniques practices based on the exercises included in the required reading materials.

Group A also does everything Group C and Group B do, and they use the Inner Balance tool and attend one hour with Dr. Keira on Inner Balance use. Helpful tools for Dr Keira and volunteer participants;

<https://www.heartmath.com/support/knowledgebase/?article=kA180000000XbaQCAS&t=emWave+Pro+Plus+Assessment+Assistance>

### **Research on Quantum Data Collection**

Quantum data via online surveys will be submitted to the confidential portal via email. The surveys will be collected by an independent person assigned by the three instructors. The data collected will have names converted to an identifying number (blinded) before that data is provided for analysis to Merry McNutt, an independent reviewer of the 22-day program. The examination request is looking for potential benefits from practicing behavioral skills as a group versus reading the materials only. Examining the added skill of the biofeedback tool will also be analyzed for its relationship to the potential improvement of stress levels related to career and financial insecurities. No participants' names will be provided to the researcher. Analysis of the program will also be used in the researcher's dissertation for Walden University.

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FUN extra mental skills abundance practice: 1-hour loop on YouTube of a fun song, “I

Get Paid Every Day [Money Montra] 1 Hour Loop I (Listen Daily!)” @ MelloWillTV

YouTube.com channel <https://www.youtube.com/watch?v=bVXXYqZbCgE>