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Implementing a Faith-Based Weight Loss Outreach Program for the Westside Community of Jacksonville, Florida

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ABSTRACT

IMPLEMENTING A FAITH-BASED WEIGHT LOSS
OUTREACH PROGRAM FOR THE
WESTSIDE COMMUNITY OF
JACKSONVILLE, FLORIDA

by

Jonathan Peinado

Adviser: Jaspine Bilima

ABSTRACT OF GRADUATE STUDENT RESEARCH

Professional Dissertation

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Seventh-day Adventist Theological Seminary

Title: IMPLEMENTING A FAITH-BASED WEIGHT LOSS OUTREACH PROGRAM FOR THE WESTSIDE COMMUNITY OF JACKSONVILLE, FLORIDA

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Problem

Jacksonville, Florida's adult population has an obesity rate of 65.4% which is slightly lower than both regional and national averages (66.1%) but higher than the state average (63.2%).

Method

A faith-based weight loss program was developed for the residents of the west side of Jacksonville. The intervention incorporated behavioral, spiritual, and psychological modules. The program lasted a total of 10 weeks from beginning to end, with the main segment taking place over a 40-day (6-week) period. Participants underwent two biometric screenings, one at the beginning of the program and one at the

end. They had daily health challenges such as exercising within their target heart rate, practicing intermittent fasting, using a Fitbit tracker, spiritual reading, personal reflection, and met weekly for six weeks in a support group. Participants were encouraged to look to God as the active agent of change in their lives while at the same time learning accurate and practical scientific information concerning weight loss.

Results

Of the 20 participants who started the program, 15 completed it. Over the course of the six weeks, participants on average lost 3% of their present body weight (6 lbs. per participant), with the greatest amount of weight lost being 18 lbs. Participants saw a decrease in their body mass index (BMI) and cholesterol levels. Triglycerides and glucose remained unchanged but still within the normal range.

Secondary benefits were also seen among participants such as less frequent migraines, freedom and confidence in movement, positive feelings about their self-image, a sense of accomplishment and empowerment, joy, renewed sense of control over their lives, and improved body composition.

Conclusion

Based on the favorable turnout from the community and the positive weight loss results achieved by participants, faith-based weight management programs can be a successful means through which the local church can bless the community. The development of an Adventist faith-based weight management program should be strongly considered.

Andrews University

Seventh-day Adventist Theological Seminary

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A Professional Dissertation

Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Ministry

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DEDICATION

To Leiv, my first-born son, whose death during the
second year of the program filled me with grief and sorrow.

To Lian Yves, whose birth during the fourth year
of the program brought joy back into my life.

To Emil, whose birth during the sixth year of the program
inspired me to finish strong.

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LIST OF ABBREVIATIONS

ABBRV	Abbreviation
APRN	Advanced Practice Registered Nurse
BMI	Body Mass Index
COVID-19	Coronavirus Disease 2019
CR	Caloric Restriction
CVD	Cardiovascular Disease
HDL	High-density Lipoprotein
HEB	Hebrew
HR_{rest}	Resting Heart Rate
HRR	Heart Rate Reserve
IF	Intermittent Fasting
IRB	Institutional Review Board
KCAL	Kilocalorie
LDL	Low-density Lipoprotein
LXX	Septuagint
MSN	Master of Science in Nursing
PF	Periodic Fasting
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
SSB	Sugar Sweetened Beverages
THR	Target Heart Rate
TRE	Time Restricted Eating

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I want to thank the leaders and members of the Jacksonville First Seventh-day Adventist Church for supporting me and giving me the time to work on the project, even though it meant that to a certain extent, I neglected their pastoral needs in the process. I want to thank the leaders of the Argyle Forest Church Plant for their financial support, and specifically Liezl Saylon for bringing her expertise as an APRN (Advanced Practice Registered Nurse) to bear upon the project. Without her and her team from UF Health Jacksonville, I could not have implemented the program.

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CHAPTER 1

A FAITH-BASED WEIGHT LOSS PROGRAM

Description of the Ministry
Context

Jacksonville, Florida is where a group of Huguenots (French Protestants) established one of the first European settlements in North America, Fort Caroline, 1564 (Bennett, 2001). But even before the French and Spanish arrived, Florida's first coast (as it is known locally) was part of the region that was home to the Timucua (Milanich, 1999). When Florida became a territory in 1821, the area was still known as Cow Ford (since cattle crossed through the St. John's River), but a year later in 1822, it became officially known as Jacksonville in honor of Andrew Jackson, Florida's first territorial governor (City of Jacksonville, 2021; Ward & Snodgrass, 1985).

In 1968 the city of Jacksonville and Duval County consolidated governments and formed what is now the fourth-largest metropolitan area in Florida with an estimated population of 1,605,848 and the 39th most populated metropolitan area in the United States (United States Census Bureau, 2021a; Crooks, Arsenault, & Mormino, 2019; Martin & Hand, 2018). As a result of the consolidation, local residents take pride in the fact that Jacksonville, by landmass, is the largest city in the contiguous United States (United States Census Bureau, 2021b).

The St. John's River runs south to north and exits into the Atlantic Ocean in nearby Mayport. Geographically, the St. John's River divides the city between east and

west, with socio-economic and ethnic divides closely following this same boundary. Speaking in general terms, a majority of the White and wealthy residents live on the east side of Jacksonville, with property values progressively increasing with its proximity to the ocean, whereas a majority of the Black residents and other poor minorities live on the west side of Jacksonville, with property values decreasing as one moves further inland. In 1999 the Cecil Naval Air Station located on the west side of Jacksonville closed, negatively impacting the economy of the west side to this day.

The Jacksonville First Seventh-day Adventist Church has been in its current location on the west side of Jacksonville since 1983. It is a medium size building comprising approximately 13,000 sq. ft. Total sitting capacity in the sanctuary is around 229. When attendance is at 66% capacity (150 individuals) the church feels full and comfortable; however, if there are more people then parking becomes an issue while seating becomes uncomfortable.

Jacksonville First had 264 registered members when I arrived 10 years ago with an average weekly attendance of 150. It now has 168 members and since the COVID-19 pandemic, average weekly attendance is anywhere between 40 to 60 onsite with 20 viewers online. In the spring of 2014, the Argyle Church plant was launched with 47 charter members. Since then, it has received company status with 67 members and financial contributions have grown and sustained to the point that they are currently eligible to apply for church status.

Jacksonville First has historically been an older White Caucasian church. However, within the last 20 years, the demographics have shifted. It is now a majority African American demographic with an aging and quickly disappearing Caucasian

constituency, along with a very small number of ethnic minority groups. Church members are also largely from a lower income bracket. Few are professionals or have a college degree. Most are blue-collar, from the working class.

Young adults have historically been scarce and few at the church. There is a trend among young adults to move out of the west side of Jacksonville, returning only later in life. Children come and go in waves. Every few years there is a good number of children in attendance, but then they become teenagers and stop attending, creating a vacancy, and then another wave of children will come in to take their place. In 2019, the church completed the Growing Young assessment from the Fuller Youth Institute and discovered that two areas that need to be strengthened at Jacksonville First is prioritizing young people in all facets of church life and passing on the leadership mantel to them ("Growing young," 2019).

The Argyle church plant is largely comprised of Filipino and West Indies ethnicities. A property has been secured and paid off. Financial contributions are being collected on an ongoing basis in order to begin construction on their own building.

My responsibilities at the church have been to lead the congregation into missional transformation by heightening their awareness of present reality, vision casting, leadership training, accountability, and financial discipline. My personal passion has been teaching, worship renewal, physical and emotional health, and evangelistic outreach. However, due to unforeseen circumstances, I have also had to spend significant time with interior remodeling and renovations, installation and operation of audio-visual equipment, video production, and conflict management. In December 2021 I will have completed 10.5 years as pastor of this church district.

Statement of the Problem

Slightly lower than national (66.1%) and regional averages (CDC, 2020a; Hales, Carroll, Fryar, & Ogden, 2020), but higher than the state average (63.2%), the percentage of adults in Jacksonville who are overweight (34.7%) and obese (30.7%) stands at 65.4% ("Jacksonville statistics: Healthiest weight profile," 2016). The cause of obesity is multi-faceted and has traditionally been viewed as involving nutritional, energy expenditure, psychological, behavioral, and sociocultural components (Koski & Naukkarinen, 2017). In the past, the focus had been primarily on energy homeostasis versus energy imbalance in the body, that is, energy intake exceeding energy expenditure (Reilly, 2007). However, the paradigm has now shifted to include, among others, the following risk factors: (a) genetic (Singh, Kumar, & Mahalingam, 2017), (b) endocrine (NIH, 2021c), (c) adverse childhood experiences (Felitti et al., 1998), and (d) sleep deprivation (St-Onge, 2017).

Church members at Jacksonville First, while they have not been clinically assessed but, merely gauging from the eye test, appear to be overweight and obese and suffer from the comorbidities associated with obesity. One of my very first experiences after arriving at Jacksonville First 10 years ago, and one that has made a deep impression on me, was listening to a parishioner share with me concerning the pain of losing his brother due to complications related to obesity.

As a pastor, I have a burden not only for the health of the community, but also for my parishioners. I ask myself, “How can I help my parishioners stay alive?” The pain of death is very personal to me, and I know that in this present world we will not live forever, but is there something that can be done to improve longevity and quality of life among my parishioners? What can I do to encourage them in paths of health and wholeness?

Statement of the Task

The task of this project was to develop, implement, and evaluate a faith-based weight loss outreach program in the west side community of Jacksonville. As is shown in chapters 2 and 3, the weight management components of this project included behavioral, spiritual, and psychological modules. The behavioral modules focused on exercise, nutrition, caloric restriction, and behavior change. The spiritual components focused on Bible readings related to weight loss and prayer. The psychological aspects involved weekly support group meetings, a focus on emotional health, body image, and self-esteem, along with reflection questions, and coaching.

The purpose of this project was to (a) help participants lose weight, (b) give them practical instruction and skills to maintain a healthy weight, (c) point participants to God as the active agent of change in their lives, (d) collect data indicating the effectiveness or lack thereof of the various components of the program, and (e) make a unique contribution within the lines of Seventh-day Adventist comprehensive health ministry by developing a health outreach program specifically targeted for weight loss.

Delimitations

This project was made available, free of charge to residents living on the west side of Jacksonville (west of St. John's River) and was specifically advertised to residents living in predetermined zip codes that are within a five-mile radius of the church. Acceptance into the project was open to both community and church members. No more than 30 participants were accepted into the program.

Participants received a biometric screening and filled out various intake surveys and questionnaires to determine their eligibility and participation in the project. The

following four factors determined an individual's eligibility for acceptance into the program: (a) BMI over 25, (b) 18 through 64 years old, (c) satisfactory completion of health assessments, and (d) completed consent forms.

The program lasted a total of 10 weeks from beginning to end, with the main segment taking place over a 40-day (6-week) period. A major limitation of this program was its duration, specifically the main segment (6-weeks) and long-term follow-up.

Description of the Project

Process

In order to develop a theological basis for a faith-based weight loss program in Jacksonville, the biblical themes of health and wholeness were considered in (a) the creation account, (b) the Old Testament health laws, (c) the healing ministry of Jesus, (d) the New Testament writings, and though outside of biblical revelation, (d) within the writings of Ellen G. White, and (e) as implemented historically and currently within the Seventh-day Adventist Church.

Current literature was reviewed, including research on faith-based weight loss programs, and other wellness programs and secular health initiatives that have already taken place in Jacksonville. Community health professionals were interviewed in order to understand the specific needs of those who are obese in our community. Health professionals were also recruited to volunteer in giving lectures on weight management, and to lead out in personalized exercise routines.

Once these preliminarily considerations were taken into account, plans were laid for the design and implementation of a faith-based weight loss program. The intervention was divided into three phases. Phase one served as the launching point of the project. During this time, participants received a biometric screening and filled out various intake

surveys, questionnaires, and consent forms to determine their eligibility and participation in the project.

Phase two served as the main weight loss segment, spanning 40 days (6-weeks). During the 40 days, participants met together once a week for six weeks where they did group exercises, had discussions, and listened to a lecture on weight management. Participants were given a workbook every week containing their daily devotional readings along with certain "health challenges" such as: (a) drinking 64 oz. of water a day, (b) exercise within their target heart rate zone, (c) count their calories via the Fitbit app, (d) abstain from one item of choice, (e) practice intermittent fasting, (f) eat two meals a day, and (g) eat the daily recommended servings of fruit and vegetables, etc.

Phase three concluded the project with exit surveys, a final biometric screening, fitness assessment, program evaluation form, community resources, and the next steps for participants. The effectiveness of this program was evaluated by comparing the results of the participant's initial and exit biometric screenings, as well as their participation in the various activities of the program, attendance, punctuality, and completion of daily health "challenges." The project was completed on July 25, 2021.

Definition of Terms

Associated Risks refers to medical conditions associated with another. For example, those who are obese are at higher risk of developing diabetes, sleep apnea, high blood pressure, joint pain, stroke, cancer, cardiovascular disease, metabolic syndrome, etc. (NIH, 2021b).

Body Mass Index (BMI) is a person's weight in kilograms divided by the square of height in meters (kg/m^2). A high BMI can indicate high body fatness. The BMI screens

for weight categories that may lead to health problems, but it does not diagnose the body fatness or health of an individual (CDC, 2021c). The National Heart Lung and Blood Institute (NIH) offers a BMI calculator (NIH, 2021a).

Comorbidity is the simultaneous presence of two or more chronic diseases or conditions in a patient (*New Oxford American Dictionary*, 2010b). An example would be an individual who is obese, has diabetes, high blood pressure, and cardiovascular disease.

Etiology is a term used in medicine to refer to "the cause, set of causes, or manner of causation of a disease or condition: *a group of distinct diseases with different etiologies; a disease of unknown etiology*. The causation of diseases and disorders as a subject of investigation. The investigation or attribution of the cause or reason for something, often expressed in terms of historical or mythical explanation" (*New Oxford American Dictionary, 2010a)*.

Obesity means having too much body fat (NIH, 2021b). Obesity is classified as having a BMI of 30 or higher (CDC, 2021d).

Overweight means that one's weight is higher than what is healthy. Overweight has traditionally been defined as having a body mass index (BMI) between 25 and 30 (CDC, 2021d).

Risk Factors refers to underlying factors that could increases risk or susceptibility to a condition (Merriam-Webster's, 2020). With regard to obesity, risk factors would include genetic, nutritional, metabolic, energy expenditure, psychological, behavioral, sociocultural components, adverse childhood experiences, and sleep deprivation (NIH, 2021c).

The Missional Church is a church that engages the community with the intent of being a blessing. It looks for ways to connect with the world beyond the walls of the church...through service. The missional church is a congregation that becomes the church not just *in* the community but *for* the community. The missional church engages in cross-domain collaboration with other sectors of the city, enabling it to address the challenging issues that threaten the welfare of the city (Reggie McNeal as cited in Hirsch & Ferguson, 2011, p. 13).

Weight Management refers to comprehensive interventions intended to modify lifestyle, engage in sustainable weight loss and maintenance practices via behavioral, psychological, pharmaceutical, and surgical methods (Ryan & Kahan, 2018; Tchang, Saunders, & Igel, 2021). The greater the number of interventions applied simultaneously, the greater the results achieved (Bray & Ryan, 2021; Catenacci & Wyatt, 2007).

CHAPTER 2

THEOLOGICAL REFLECTION ON OBESITY, HEALTH, AND HEALING

Introduction

Scripture is largely silent about the issue of obesity and overweight. There are only a few passages that could be related to the subject, such as the diseases of the Egyptians (Clark et al., 2014; Nunn, 1996, pp. 81-87), the prohibition against eating fat, the stubborn son, Jeshurun, King Eglon, a warning against gluttony (c.f. seven deadly sins), and the belly god (Exod 15:26; Lev 3:17, 7:23-24; Deut 21:20, 32:15; Judg 3:17-22; Prov 23:21; Phil 3:19). Obesity, though known in the ancient world, was rare in pre-industrialized civilizations, and one can only suppose in Bible times as well (Bray, 2014; Craig, 2010). Obesity seems to be onset when traditional societies become affluent; settle down, adopt a sedentary lifestyle, while food becomes abundant and readily available (Eaton, Shostak, & Konner, 2010).

It is the thesis of this chapter that all forms of illness, including obesity and overweight, have their origin in the fall of Adam and Eve in the Garden of Eden, a fall which negatively affected the totality of their being: physical, mental, emotional, social/relational, and spiritual (Fretheim, 2012). This study submits that each of these elements can be contributing factors to obesity (Puhl, Henderson, & Brownell, 2010). Therefore, this chapter focuses on a holistic theology of health in relation to obesity.

The biblical basis of this chapter is grounded in the creation account of Genesis 1 to 3. Near the end, both the Old and New Testaments are surveyed to further develop a theology of healing, which, I believe, begins with an acknowledgment that we cannot heal ourselves, but that all healing comes only from God.

Goodness and Wholeness in Genesis

Holy Scripture draws a portrait of life, vitality, goodness, health, and wholeness as God's ideal for humanity. This ideal encompasses the entirety of humanity's being—physical, mental, spiritual, emotional and social/relational. Scripture reads, "God saw all (Heb *kol*) that He had made, and it was very good" (Gen 1:31, NIV, 2011). Wholeness, as indicated by the word "all" (*kol*), is an intrinsic characteristic of a perfect creation, a perfect ecosystem, symbiotically living in harmony with all its parts, perfect balance, and harmony (Cassuto, 1961, p.59). Wholeness is thus a concept grounded in Scripture.

The Earth as originally created by God was a paradise, a place of pure perfection. The Hebrew phrase used to describe this perfection in Genesis 1:31 is (Heb *wehinnê-ṭôḇ meʾōd* - lit. "Behold very good"). Accompanied with the Hebrew noun *meʾōd, ṭôḇ* intensifies and is strengthened in meaning, for example, "very exceedingly good" (Wenham, 1987; Westermann, 1984, p.166). In addition to this, the particle *wehinnê* interrupts the reader, calling attention to the goodness itself (i.e., behold! Look upon that which is very exceedingly good!)

Consistent with this usage is the Greek translation of the Old Testament found in the Septuagint (*abbrv*. LXX) *idou kala lian* "Behold, exceedingly good!" *Kala* (lexical form *kalos*) is defined as that which is fine and beautiful, or something good and useful at a high level. *Kalos* can also refer to moral goodness (2000). Its usage in Classical Greek

conveys the idea of that which is organically healthy, fit, useful, beautiful, a state of total soundness, wholeness, and order in both external and internal disposition. *Kalos* belongs to the realm of the divine and is that which connects individuals to it (Grundmann, 1964). While the LXX may not necessarily carry these same Platonic and Hellenistic nuances, nonetheless they are informative.

Returning to the Hebrew usage, *ṭôḇ* is an adjective which describes all that is good, and good in all respects. Its range includes qualitative, moral, spiritual, aesthetic, and external goodness. *Ṭôḇ* is that which is beautiful, pleasant, desirable, kind, and valuable (Kœhler & Baumgartner, 2001d, pp. 370-372). *Ṭôḇ* is used seven times in Genesis 1 to describe the light, the dry land, the seas, the sun, moon, stars, precious metals/stones, plant, and animal life (Gen 1:4, 10, 12, 18, 21, 23, 2:12). The number seven has special significance in scripture. Its usage can indicate a sense of "fullness, completeness, totality, and wholeness" (J. J. Davis, 1968; Labuschagne, 2000, p. 26). In Genesis 2 and 3, *ṭôḇ* is also used in connection with the tree of life and the tree of the knowledge of good (*ṭôḇ*) and evil (Gen 2:9, 17, 3:5-6).

The Concept of Life in Genesis Two

Another key word in the Creation account that relates to the concept of wholeness and goodness is life (Heb *ḥay* Gen 2:7, 9.) The word life is closely related to the Hebrew verb to be, or to exist (*hyh*). God created so there could be life. Life is a central motivating factor behind God's creative work on earth. He created the earth to be inhabited (Isa 45:18).

Scripture says that God breathed into the nostrils of humanity the breath of life (Heb. *ḥayyîm*) and humanity became a living (Heb *ḥayyā*) soul. Scripture here begins to

build and develop what Schweitzer (2009) calls an affirmation of life or reverence for life. This is a reverence for life which encompasses more than just human life, but all of life, including animal life (p. 155).

In Genesis 2:9, both life (*ḥay*) and good (*ṭôḇ*) come together in close relationship to each other (Keiser, 2013, p. 93). Scripture says, "The Lord God made all kinds of trees grow out of the ground—trees that were pleasing to the eye and good [*ṭôḇ*] for food. In the middle of the garden were the tree of life [*ḥay*] and the tree of the knowledge of good [*ṭôḇ*] and evil" (Gen 2:9). The syntactical placement of "life" in the center of this passage and also the spatial locus of the tree of life in the center of the garden suggests the centrality and prominence in the biblical text regarding life (Ouro, 2002).

According to the biblical text, humanity was to pursue every good tree and every good fruit, including the tree of life, all while avoiding the tree of the knowledge of good and evil. The biblical passage here deals with opposites and contrasts. Evil (*rāʿ*) is the opposite and antithesis of the good (*ṭôḇ*). Evil is that which is harmful to humanity—that which destroys humanity. Evil is that which is of little worth, injurious, not beneficial, pernicious (used in context with illness c.f., Deut 7:15), and malicious. Evil leads to death, and death is the opposite and antithesis of life. The formula in the creation account is simple: good leads to life, evil leads to death.

Another concept that Genesis appears to be indicating is that, just as eating from the good trees brings life and eating from the forbidden tree brings evil and death, so too, in today's world, eating can become a source of life, health, and goodness, or it can be a source of evil, illness, and death (Kumanyika et al., 2010). Poor nutrition habits and the

excess consumption of calories are considered to be one of the many contributing factors of obesity.

Natural Resources

Besides the words of the biblical text affirming the perfection of creation, the narrative and content of what was created also signals that indeed all (*kol*), including the natural resources of the sky, earth, and waters were created for the health and happiness of humanity (Westermann, 1984, p. 207).

Occupation

God gave a calling and purpose to humanity in connection with the earth to have dominion, work the ground, till and care for it (Gen 1:26, 28, 2:15). Herein lies the biblical basis for living an active lifestyle and exercising in the open-air, a practice which has been shown to be key in preventing and reversing obesity (Catenacci & Wyatt, 2007). God created us to be active, not sedentary. These passages also establish the basis of sustainable agricultural practices (Fick, 2008).

Food

Another gift given to humanity was the abundance and plenteousness of food. In the beginning, God provided enough sustenance for all, and did so in harmony with the principle of the sacredness of life (Gushee, 2013, p. 39; Gen 9:4). There is also a similar pattern of divine speech employed in this chapter's opening passage of Genesis 1:31 wherein it summarizes the creative work (*wehinnê-ṭôḇ meʾōd* - lit. "Behold very good"). In verse 29, as the passage begins to describe the plant-based diet of Eden, it uses the similar Hebrew phrase *hinnê nāṯattî* – lit. "Behold I give" just like verse 31, *Hinnê* here

signals an unexpected, noteworthy, and significant development in the course of creation, namely, a plant-based diet for every one of God's created beings—humans as well as animals (McLaughlin, 2014, p. 83).

Hence, all creatures subsisted on a plant-based diet (Young, 1999, pp. 84-85). Sarna (1989) writes, "God [made] provision for the sustenance of man and beast ...the narrative presupposes a pristine state of vegetarianism. Isaiah's vision of the ideal future in 11:7 and 65:25 sees the carnivorous animals becoming herbivorous" (Sarna, 1989, pp. 13-14). Some consider a vegetarian diet to be superior to other forms of nutrition, and combined with an active lifestyle and a positive outlook, these become essential in preventing and reversing obesity (Esselstyn, 2011; Ornish, 2007). But even if one chooses not to strictly adhere to a vegetarian diet, there are still many benefits from eating copious amounts of fruits and vegetables.

Green Spaces

God also created a special place on earth for humanity—the Garden of Eden with rivers running through it (Gen 2:8, 15). Eden is possibly a homophonic word meaning "land of bliss" or "happy land" (Kœhler & Baumgartner, 2001b, p. 792). The LXX translates Eden as *paradeisos* from where the modern term paradise is derived. Gardens have always caught the interest and imagination of human beings as evidenced in the varied and numerous modern day botanical gardens such as the Butchart Gardens in British Columbia, Canada, or in the east, the Nong Nooch Tropical Botanical Gardens in Thailand, among many others.

Gardens have also played significant roles in history, as the hanging gardens of Babylon were considered to be one of the seven wonders of the ancient world, or even

the mythological Elysian Fields. Interestingly enough, the nation of France sought to replicate this mythical paradise during its 19th century urban renewal and redevelopment of the city of Paris as it designed and engineered the Champs-Élysées. One would also be remiss not to mention the aesthetic influence that French gardens, such as Versailles and other various chateaus have had upon modern urban design.

These gardens, past and present, real or mythical, embody a desire in the human soul for beauty, relaxing scenery, green spaces, fountains, colorful aromatic flowers, and verdant trees. Gardens are a symbol of wealth, affluence and opulence, of nature and humanity at peace. Even to this day, these seem to be longings of the human heart for paradise lost. Furthermore, studies indicate that there appears to be a connection between urban design and obesity rates, in other words, the design of a city can either increase or decrease the rates of obesity of its citizens. This is accomplished mainly through the development of sidewalks, accessible green spaces, public transportation, and so on (Drewnowski et al., 2014; Lakerveld, Ben Rebah, & Mackenbach, 2015).

Time and the Nuclear Family

God also created a special day, consecrating time (the Sabbath) as a gift to humanity, a blessing of rest and holiness (holiness being an aspect of wholeness) (Heschel, 2003). The Sabbath speaks of humanity's dignity and is a call against the exploitation of the working classes. The uniqueness of the Sabbath is quite unlike the portrayal of humanity as slaves for the gods in the *Enûma Eliš*, the Babylonian Epic of creation (Lambert & Parker, 1966). Studies have indicated that when there is sustained disruption of circadian rhythms—be it daily, weekly, or seasonal rhythms either through overwork, shifting work schedules, working nights, or jet lag, these all can have a

deleterious effect on our metabolic pathways, blood pressure, hormone secretion, increasing the risk of becoming obese and experiencing cardiovascular diseases (Pan, 2013, pp. 81-122).

God also created social relationships that were good (*ṭôḇ*) for humanity—marriage and the nuclear family (Gen 2:18, 20-25). Studies suggest that those who suffer from obesity tend to also suffer social consequences such as isolation, negative interpersonal engagements, depression, lower income due to lack of education, and employment opportunities (Puhl et al., 2010).

The Fall and Loss of Wholeness, Goodness, and Life

Unfortunately, the goodness and beauty of God's created world was marred. A change takes place in the biblical narrative, a change that started at the center of paradise, at the tree of the knowledge of good (*ṭôḇ*) and evil (*rāʿ*). We will see that Adam and Eve's failure was multifaceted—it encompassed physical, mental, spiritual, social/relational and emotional dimensions.

Even in a perfect world, God established limits and boundaries (Gen 2:16-17). In this particular instance there was to be the exercise of self-control, temperance, and perhaps even abstinence (Fretheim, 1994). "There is no freedom without a limit" (Kessler & Deurloo, 2004, p. 45). Of all the possible tests of loyalty, trust, and love that God could have chosen, the one He tests humanity with involved the appetite—which is a leading cause of sickness and death in the developed world today (T. C. Campbell, 2016).

Scripture says that when they ate of the fruit of the tree, "The eyes of both of them were opened, and they realized they were naked" (Gen 3:7). The expression "eyes being opened" is found upwards of 30 times in Scripture, and this particular context conveys

that the opening of Adam and Eve's eyes encompasses four aspects (De La Torre, 2011). The event was a physical opening of their eyes because they literally saw themselves naked. It was a cognitive experience, as there was some form of awakening in their minds, a realization of their naked self. Psychologists refer to this as the starting point of the moral emotions: guilt, shame, pride, and embarrassment (Krettenauer, 2013). The physical, combined with the cognitive and emotional awakening forever changed their relational and social interactions. And finally, it was a spiritual experience because upon realizing their physical, emotional, mental, social/relational nakedness; they then proceeded to hide themselves from the presence of God. Here the knowledge of evil is seen accessing the totality of Adam and Eve's being (Kline, 2016, p.22).

The Corruption of the Mind and Spirit: Cognition & Emotion

In Genesis 1-2 there is unity and harmony of speech. There is only one voice that is heard, and that is the voice of God and the word of God in the acts of creation: "Let there be" (Gen 1:3, 6, 9, 11, 14, 20, 22, 24, 26, 28, 29; 2:16, 18). When a second voice is heard, it is that of Adam affirming the creative work of God regarding the creation of woman (Gen 2:23).

However, in Genesis 3, a third voice is heard, the discordant and dissonant voice of the serpent (Gen 3:1, 4-5). This dissenting voice brings in confusion and uncertainty into what was already clear and certain. The psychologist Scott Peck (1983) writes that one of the main characteristics of evil is ambiguity, obscurity, confusion, and that feeling when you know something is not right but you cannot quite identify why (1983, p. 179).

In contrast, God's word up to this point had been one of clarity, certainty, and goodness. One of the aspects of the Hebrew concept of God's word (*dābār*) is that there

is no duplicity, ambiguity, nor contradiction in it. What He speaks is what He wills—there is no double speak (Fretheim, 1992). The word of God is reliable and tells the truth (2 Sam 7:28, 22:31; Ps 119:43, 140). Moreover, the truth of God's word was evident in everything that Adam and Eve had experienced up to that point—everything was good and beautiful and full of life. Likewise, the lies and deceptions of the serpent would be made evident in the disastrous results of eating the fruit—goodness turned into evil, truth into falsehood, and life turned into death. Thus, the serpent becomes an emotional blackmailer. The tantalizer—promising the world, if only humans do what he says, only for those promises never to materialize (Forward & Frazier, 2001, p. 34).

The confusion and uncertainty injected in the mind of Eve can be seen in her continuing conversation with the serpent, where the serpent questions the clarity of and motive behind God's command. The insinuations of the serpent were impugning God's person and character. Eve, in her defense, quotes the words of God verbatim, showing that she is confident and convinced of what God said, except that she adds the phrase, "and you must not touch it" (cf., Gen 2:17, 3:3).

God gave no prohibition regarding the handling of the fruit, merely the eating of it. This addition is telling. One can only speculate as to why she added this phrase, possibly to overcompensate and exaggerate God's word to make her position appear that much more secure and convincing (Speiser, 1964). Either way, her mind became corrupted, as evidenced by her inability to think clearly. In the same way, the human mind became confused, susceptible to uncertainty, anxious, and insecure.

The Effect Upon Emotional Health

Emotions are also affected by cognitive distortion. Once Adam and Eve ate the fruit, the biblical passage states they became aware of their nakedness and proceeded to cover themselves (Gen 3:7). Earlier the Bible mentions they had been naked all along but felt no compulsion to dress themselves (Gen 2:25). Their perspective and actions consisted of openness without guilt or embarrassment. Why then the sudden change of action?

Though the words translated as naked in Genesis 2:25 and 3:7, 10, 11 are related, they differ slightly in meaning (Kessler & Deurloo, 2004, p. 52). In Genesis 2:25 the word for naked is *ʿārôm*, meaning to be in a state of nudity (Kœhler & Baumgartner, 2001a). This word is also used in Job 1:21 to speak of the condition of infants when born. The context suggests nothing negative; it is innocent, beautiful, pure, and natural.

The word used for naked in Genesis 3:7, 10, 11 is *ʿêrōm*, and while this word also means to be uncovered, it has an additional nuance: to be "bare" (Kœhler & Baumgartner, 2001c). This word is only used five times in the entire Hebrew Old Testament—three times in Genesis 3, and twice in the book of Ezekiel to describe in graphic detail the unfaithfulness of Israel (Ezek 16:7, 22). *ʿÊrōm* connotes shame (Navon, 2008, pp. 137-145).

Furthermore, there seems to be a word play in Genesis 3 between the nakedness (*ʿêrōm*) of the pair and the craftiness (*ʿārûm*) of the serpent (Niehr, 1988). In Genesis 2:25 Adam and Eve are naked (*ʿārôm*) and not ashamed. However, in the very next verse the serpent exposes his craftiness (*ʿārûm*), corrupts them and in verse 7 they now find

themselves bare (*ʿêrōm*). Thus, they move from *ʿārôm* (innocence), to *ʿārûm* (cunningness), to *ʿêrōm* (bareness).

Shame in Scripture

Genesis 2:25 is the first appearance of the word "shame" (Heb *ḇwš*) in Scripture. In this verse, *ḇwš* is in the Hithpael stem related to the Piel stem which traditionally denotes intensification (Arnold & Choi, 2003), and functions as a causative reflexive verb, as in, "their own state of nakedness is having an effect on themselves, and that is, non-shame" (Joüon, 2006, p. 156). It can also be understood in a reciprocal sense as in "to be naked in front of each other and not be ashamed in front of each other" (Waltke & O'Connor, 1990, p. 424).

The primary meaning of *ḇwš* is to fall into disgrace through failure. *Ḇwš* "expresses the idea that someone, a person, a city, a people, a professional organization, or the like, underwent an experience in which his (or its) former respected position and importance were overthrown" (Seebass, 1974). The biblical concept of shame is different to the typical English understanding in that the English word focuses largely on the feelings and inner thought processes, whereas the Hebrew meaning primarily envisions a physical state, a coming into shame, with a focus on the sense of public disgrace. The LXX's translation and use of the Greek word *aischynō* (shame) in Genesis 2:25 also confirms this same focus of entering a state of shame rather than merely what one feels on the inside (Bultmann, 1964). Furthermore, while a physical state is the primary focus, a handful of references in the Old Testament do speak of feelings of shame.

It is interesting to note that in Akkadian, the word *bāštum* (which is a cognate of *ḇwš* and equivalent to shame) can refer to that which is injured or lost in the incident.

That is, “shame” can be a loss of the “cloth of modesty” covering the individual (Seebass, 1974). Some scholars view the use of *ḇwš* here to refer to sexual shame; a loss of modesty (1997). Seventh-day Adventists have long-held a view based on the writings of Ellen G. White that there was some form of light covering Adam and Eve, a robe of light that they were wearing before the fall but lost after they disobeyed (Nichol, 1978; Sacks, 2009, p. 34; c.f., Gen 3:16, 20).

“Shame” is never depicted in Scripture as something that is desired or necessary, but rather destructive to the individual. Even though the word *ḇwš* in Genesis 2:25 does not possess all the meanings and usages as described above, one cannot ignore the fact that perhaps an aspect of each may be found in the passage of Genesis 3:7-9. For instance, when Adam and Eve ate of the forbidden tree, they (a) fell into disgrace through failure, (b) entered a reflexive and reciprocal state of shame, (c) turned away from God to another (their own deification and/or serpent), (d) awaited a catastrophe, (e) had a sense of confusion, embarrassment, and dismay at their disappointed expectations, (f) felt guilt, embarrassment and fear, and (g) lost their cloth of modesty.

While a conversation regarding the proper fitting of clothes may seem passé, for those who are overweight or obese, this is still a very much relevant topic, along with issues related to body image and self-image, not to mention the increasing awareness of the role of social media in relationship to our perception of body image, self-esteem, and depression (Hogue & Mills, 2019).

Shame in Modern Psychology

From a psychological standpoint, shame is an emotion. The English word emotion is derived from the old French word *esmovoir*, which means to “stir up.” It also has roots

in the Latin word *emovere* meaning to move or displace. In other words, emotions can move individuals to action (Caruso, 2008, p. 5).

However, a more clinical understanding of emotions are that they are "a subjective reaction to a salient event, characterized by physiological, experiential and overt behavioral change" (Sroufe, 1996, p. 15). Shame is a negative, painful feeling associated with a loss of respect or esteem and a sense of dishonor. Along with guilt, shame is considered a moral emotion. Schore (1994) asserts that shame springs up when one's condition or state is not attuned to by another individual (p. 203).

Scripture reads, "When the woman saw that the fruit of the tree was good for food and pleasing to the eye, and also desirable for gaining wisdom, she took some and ate it" (Gen 3:6). All her physical senses desired the fruit—hearing, sight, touch, smell, taste, as well as her inner ambitions and aspirations. But these strong desires were met with an equally strong sense of disapprobation from God, and the ensuing result was shame. This feeling was so intense that it moved them to action, so they sewed fig leaves to cover themselves and then hid in the garden.

Shame can become harmful and toxic when it turns into humiliation. Humiliation occurs when there is sustained breakage, separation, and anger between the individuals involved. However, if the relationship is readily repaired there will be no long-term damage (Schore, 1997). An example of this can be seen in the redemptive acts of God in Genesis 3:21 where He Himself makes garments of skin to cover the naked and guilty pair.

However, other psychologists view shame as a feeling of self-blame, involving negative evaluations of the self, which are harmful to the individual. Instead, they

propose guilt as the healthier alternative. The differentiation between guilt and shame is the role of the self in the experience. Shame focuses on the self: "*I* did that terrible thing," whereas guilt focuses on the behavior, "I *did* that terrible thing" (Tangney & Dearing, 2004, p. 18).

This approach leads to very different experiences and outlooks in life. Guilt appears to motivate the individual towards the hard work of confession, reparation, and apology, but shame has the tendency to lead to withdrawal, hiding, angry outbursts, or seeking an escape (Barrett, Zahn-Waxler, & Cole, 1993). Dweck (2000) notes that

> those who feel like bad people after doing something wrong are less likely to repair their behavior or make it up to others than are people who simply feel as though they've done a bad thing. People who feel bad or worthless may just run away from the situation or even become angry at (and aggressive toward) the person they hurt in order to escape their feelings of self-contempt. In contrast, people who simply feel bad about what they've done still have the resources to contemplate why they behaved the way they did, what they will do to rectify the situations, and how they would ideally like to behave in the future. (p. 153)

While there are various Hebrew words used in the Old Testament to describe guilt, each with its own nuance, they seem to convey the idea of a concrete state of having committed a wrong deed, moral or otherwise, intentional or unintentional. This places the psychological understanding of guilt (a focus on what has been done) and shame (something not to be desired and destructive to the self) in harmony with the scriptural teaching. Notice that "obesity has long been considered to be the result of a lack of discipline and effort to reduce calorie intake and to increase physical activity, which has led to a fundamental and still present social weight-related stigmatization of affected individuals" (CCD, 2020; Friedman, 2004).

The Role of Fear

A second emotion that Adam and Eve experienced is fear. In some languages, shame is not distinguished lexically from fear, and one of the most common actions when afraid is to run away and hide (Hart & Matsuba, 2007, p. 198). This is noteworthy because in Genesis 3:8, 10, Adam and Eve did exactly that. In their shame, Adam and Eve felt afraid, and in their fear, they hid from God. It is possible they were also hiding from each other. Adam and Eve are now experiencing new emotions they had never felt before. The human mind has the capacity to grow and learn. It creates new neuron pathways, and here Adam and Eve are experiencing the new emotions that come from knowing evil—shame and fear.

Fear (Heb *yraʾ}*; LXX *phobeō*) is defined as a state of apprehensiveness. In the Hebrew Old Testament, it appears approximately 320 times and in the Greek New Testament over 130 times. Some have said that the command "do not fear" is the most repeated promise in Scripture (approximately 110 times).

Psychologists define fear as the emotion felt by the presence of a specific, tangible, and real threat (LeDoux, 2015, p. 7). Though related to anxiety, it is different in that anxiety is a sense of vulnerability and danger of an unperceived, intangible, and possibly future threat (Barlow, Chorpita, & Turovsky, 1996). The degree to which one is afraid is what determines the classification of a phobia (Craske, Martin, & Barlow, 2006).

Returning to the Genesis passage, what were Adam and Eve afraid of? The text seems to indicate that they were afraid primarily because of their shame and nakedness (Letellier, 2015, p. 82). However, if the modern definition of fear is based on a present, tangible danger or threat, could it also have been that they were afraid of God? Could it

be that they were fearful for their lives? God did say that if they ate the fruit, they would die. Perhaps they felt that God was coming to execute them?

Thus shame, fear, and guilt become underlying emotions in the human experience—a result of the fall of Adam and Eve. The reason for spending so much time on these concepts is that these same emotions; shame, fear, and guilt, are often felt by those who are overweight or obese. They can feel ashamed about how they look. They can feel guilty about what and how much they have eaten. They may worry about what other people think of them, and these feelings of shame, guilt, and fear can serve as a downward spiral discouraging them from taking the necessary action that can lead to change. A positive sense of self, self-esteem, body image, and emotional health are necessary elements in weight management (Boisvert & Harrell, 2014; C. S. W. Rand, 1982).

The Corruption of the Body

Not only is there a corruption of the mind, feelings, emotions, and spirit of Adam and Eve but their bodies are also affected. As suggested earlier, the opening of their eyes and the realization of their nudity was a real, physical experience, and as the divine monologue continues in Genesis 3, unending hardships are described against men and women (Collins, 2006, p. 164).

Woman

For the woman there would be conception, pregnancy, and childbirth (Heb *hērôn*), a blessing pronounced upon her from the beginning, but now it would be accompanied by pain and suffering. There is still conception, something that is good, a symbol of life, nay life itself, but it will come with a cost, and the price is suffering and

pain. Herein lies the outworking of the new order of reality—the order they have chosen. No longer would they know good exclusively—now they would also know evil.

The Hebrew words used here to describe the pain and suffering endured by women are *ʿIṣāḇôn* and *ʿeṣeḇ*. These words include more than physical pain—it includes emotional distress as well (Harris, 2005). While the immediate context points directly to the experience of childbirth, I believe it could also encompass any form of pain related to women's health, including the pain and health complications of child loss, miscarriages, and sterility, not to mention the changes that take place in a woman's body after childbirth, excess weight, body image, and postpartum depression (Dysinger, 1997, pp. 93-94; Meyers, 1988, pp. 112-113).

Another aspect of the physical pain caused by sin can be drawn by returning to the word shame, as used earlier in the passage. Some scholars believe that shame, as mentioned here, could include sexual shame. Perhaps then this passage, in conjunction with the proceeding clause of "man ruling over woman" foreshadows violence against women. Dobash and Dobash (1979) write,

> The seeds of wife beating lie in the subordination of females and in their subjection to male authority and control. This relationship between women and men has been institutionalized in the structure of the patriarchal family and is supported by the economic and political institutions and by a belief system, including a religious one, that makes such relationships seem natural, morally just, and sacred. (pp. 33-34)

Instead of equality among the genders, there would now be inequality and dominance of one over the other (C. J. Adams & Fortune, 1995; Provan, 2016, p. 82).

Man

Man was not left without his share of difficulties. The same word used in verse 16 to describe the pain and suffering of women is now used for man's painful (*ʿeṣeḇ*) toil in

the field. Work will no longer be characterized with satisfaction and fulfillment, but also with toil, frustration, stress, futility, and ultimately death (Gen 3:17, 19; Eccl 2:11). As we will see in chapter three, stress along with other adverse experiences can lead to overweight and obesity.

One of the desires of mankind has been to reduce the amount of hard physical labor and to create more opportunities for leisure time. History shows that when societies are successful at this, obesity becomes epidemic (Hill, Wyatt, Reed, & Peters, 2003). It is ironic that the realization of society's dreams and quest for ease appears to contribute to overweight, obesity, cardiovascular diseases, cancer, and other metabolic illnesses.

Hope for Healing

Despite these factors, there is hope for the healing of the mind, body, and soul. Throughout sacred history, God intervenes in special ways to bring healing to every aspect of the human condition. "We have too narrow a definition of healing. Healing (Heb *šālôm*; Gk. *sǭzō*) is a holistic concept. Healing takes in all of life- the environment, relationships, addiction, broken marriages, emotions, self, sin, spirituality, demonic and psychological oppression," and one day, even death will be healed (Dybdahl, 2016). There are numerous examples of healing in Scripture, below are a few from the Old and New Testaments.

Healing in the Old Testament

The very first example of healing in scripture relates to the emotional restoration of Adam and Eve as God draws near to them. As seen in the previous section, when fear, shame, humiliation, and guilt manifest themselves, reparation of the relationship is essential to avoid long-term cognitive and emotional damage. So, while Adam and Eve

were experiencing shame, guilt, and fear, God seeks to remove those elements from their life by drawing near to them, covering their nakedness and clothing them with garments.

The Hebrew word for garments (Heb *ḵuṯōneṯ*) signifies that which is worn by one in power, "showing that however diminished their standing, they still act with divine authority" (Cotter, 2003, p. 36; Gen 37:3; Exod 28:3, 4; 2 Sam 13:18). Thus, what was lost by their choices and actions, God is restoring. I think this is a very important point to emphasize, and that is, healing originates in the actions of God. Adam and Eve cannot heal themselves emotionally. Adam and Eve cannot repair the broken relationship by themselves. Their attempts at clothing their nakedness and covering their shame are ineffectual. A theology of healing must first and foremost recognize that humans are unable to heal themselves of their maladies. A theology of healing must recognize that all healing flows forth from the heart of a loving God, a Father God who carries His wounded children in His arms, binding their wounds (Exod 19:4).

The physical material of this garment, that is lambskin, also speaks of spiritual healing. For Adam and Eve to be clothed, a lamb had to die. This is the first example in the scriptures of the concept of substitutionary atonement. The sentence for Adam and Eve's failure was their death. Nevertheless, instead of that punishment being carried out on them; a lamb dies in their place. It is no accident that Isaiah describes the ministry of the promised Messiah as a lamb taking up our infirmities upon himself and bearing our diseases, a lamb whose stripes bring healing (Isa 53:4, 5, NRSV). One of the Old Testament motifs is of God as the one who forgives iniquities and heals diseases (Ps 103:3). This is where spiritual and physical healing merges and becomes two halves of a whole. Physical healing is bound up with spiritual healing (White, 1905, p. 141).

The Old Testament also addresses very practical matters of physical health, such as the dietary and sanitary laws of the Torah (i.e., the prohibition against eating fat, blood, and unclean meats), instruction regarding the importance of proper washing and personal hygiene, preventative measures, disposal of waste, guidelines regarding infectious diseases and public health, direction regarding the application of a medical poultice, and counsel regarding mental and emotional health (Lev 11; 13; Deut 14:3-21; 23:13; 1 Sam 16:16; Prov 17:22; Isa 38:21).

Of particular interest is the Bible's prohibition against eating blood. I find that especially interesting considering our modern understanding of the negative effects of eating red and/or processed meat. Red meat tends to have a higher blood content than white meats, thus giving it a darker hue, but more than the color, red/processed meats are a leading cause of increased risk of cancer, cardiovascular disease, diabetes, overweight and obesity (Battaglia Richi, 2015; Bouvard et al., 2015).

Healing in the New Testament

With the arrival of Jesus, healing takes center stage in the New Testament. Jesus sees his messianic mission as the fulfillment of prophecy:

> The Spirit of the Sovereign Lord is upon me, because the Lord has anointed me to proclaim good news to the poor. He has sent me to heal the brokenhearted, to proclaim freedom for the captives and recovery of sight to the blind […] to comfort all who mourn, and provide for those who grieve in Zion—to bestow on them a crown of beauty instead of ashes, the oil of joy instead of mourning, and a garment of praise instead of a spirit of despair. They will be called oaks of righteousness, a planting of the Lord for the display of his splendor. (Isa 61:1–3)

This passage includes the holistic concept of the healing of body, mind, and spirit. Here, the Messiah will heal the brokenhearted (emotional), the blind (physical), the ones

who mourn and grieve (mental), the poor (spiritual), and He establishes his people like trees of righteousness.

Therefore, when considering healing from overweight and obesity, it will be essential to ground oneself and incorporate a holistic and comprehensive approach to weight loss. The cure, the healing that we are seeking is about more than just losing weight; it's about healing our mind, our relationships, our heart, our body, and our spirit.

Healing in the Gospels

Jesus came to bring abundant life to all (Jn 10:10). Throughout the gospels, the legitimacy of Jesus' anointing as Messiah is to a large degree established by his healing ministry. "The healing of disease in Christ's day, in many cases, preceded belief in Christ as Savior" (E. Adams, 2017, p. 123). When asked about his messianic credentials by John's disciples, Jesus responds, "Go back and report to John what you hear and see: The blind receive sight, the lame walk, those who have leprosy are cleansed, the deaf hear, the dead are raised, and the good news is proclaimed to the poor" (Matt 11:4-5). And so, the Gospel records that Jesus went about

> healing every disease and sickness among the people ...and [the] people brought to him all who were ill with various diseases, those suffering severe pain, the demon-possessed, those having seizures, and the paralyzed; and he healed them. (Matt 4:23-24 NIV11)

And just as in the Old Testament, once again it is seen in the gospels that healing has its origin in God. Those who were healed by Jesus were unable to heal themselves. Many had tried every other solution, but it is Jesus Who has healing virtue within Him, freely flowing out to all (Mark 5:30; 6:56). In the New Testament individuals were healed when they sought Jesus, looked to Jesus, allowed Jesus to draw near to them, and

reached out in faith towards Him. A theology of healing will recognize that we as individuals, as human beings do not have the ability to heal ourselves, no matter the ailment, including those impacted by behavior. Healing can only come from Jesus.

And this is especially important to remember when dealing with matters related to self-help and specifically to weight loss. Oftentimes when attempts are made at weight loss, there is, and rightly so, an emphasis on the exercise of the will, will-power, strength of will, human effort, trying, cognitive behavioral therapy, habit change, education, knowledge, information, motivation, etc., and while these all have their place, we must remember that all of these tools must be subordinate to the healing power of God. People do not have the power to change. It is impossible to heal ourselves of our maladies.

> Education, fame, genius, talent, refinement, nobility of character, culture, the exercise of the will, human effort, Christian training, religious experience, all have their proper sphere, but here they are powerless. They may produce an outward correctness of behavior, but they cannot change the heart; they cannot purify the springs of life. There must be a power working from within, a new life from above, before men can be changed from sin to holiness. That power is Christ. His grace alone can quicken the lifeless faculties of the soul, and attract it to God, to holiness. (White, 1956, p. 18)

> Man cannot transform himself by the exercise of his will. He possesses no power by which this change can be effected. The leaven–something wholly from without–must be put into the meal before the desired change can be wrought in it. So the grace of God must be received by the sinner....All the culture and education which the world can give will fail....The renewing energy must come from God. The change can be made only by the Holy Spirit. (White, 1941, p. 96)

Healing comes when individuals allow God to repair the broken relationship. When those who are sick, hurting, and wounded look to Jesus, and as they look, they will live (Num 21:8-9).

The Apostles' Healing Ministry

Once Jesus ascended into heaven, He commissioned his disciples and church to continue His healing ministry. In the book of Acts, one of Peter's first works after receiving the Holy Spirit on the day of Pentecost is to walk into the temple and proclaim to the lame man, "Silver and gold I do not have, but what I do have I give you: In the name of Jesus Christ of Nazareth, rise up and walk" (Acts 3:6 NKJV). Again, the source of healing is Jesus, and Peter faithfully draws the attention of the cripple man to Jesus. The goal of engaging in a healing ministry is to point men and women to Jesus (White, 1905, p. 144).

And in the book of Acts, Peter's healing ministry closely resembles that of Jesus'. People bring their sick so that Peter's shadow might fall on them and be healed. Multitudes gather around Peter, bringing their sick and the demon-possessed, and all are healed (Acts 5:15-16). Peter raises Tabitha from the dead (Acts 9:40). The apostle Paul will also engage in a healing ministry where handkerchiefs and aprons are brought to him and those who touch them are healed (Acts 19:11-12).

Scattered throughout the New Testament epistles are various examples related to a ministry of healing. The apostle John will inquire about the physical well-being of his congregation and will pray for their enjoyment of good health (3 John 2). Paul exhorts the members of the Thessalonian church to keep their whole body, spirit, and soul blameless (1 Thess 5:23). This is a holistic exhortation to health and well-being. Just as Jesus came to bring healing to body, soul, and spirit, so the apostles were to carry forward the same holistic ministry, pointing the sick, wounded, and hurting to Jesus (Acts 3:16).

Summary and Conclusion

I believe that the responsibility and privilege of continuing the healing ministry of Jesus extends even to contemporary communities of faith. Physical health, emotional wellness, and healing are core elements of Seventh-day Adventist identity. From the writings of Ellen G. White (*The Ministry of Healing*, *Counsels on Health*, *Counsels on Diet and Foods*, *Medical Ministry*), to the opening of Adventist sanitariums in the 19th century, to the establishment of Loma Linda Medical Center, to the development of AdventHealth, one of the largest health care providers in North America ("extending the healing ministry of Christ"), and to the vast number of clinics and hospitals around the world, Seventh-day Adventists have become the largest Protestant provider of medical services around the world ("Find a hospital or a clinic," 2021).

"Physical healing is bound up with the gospel commission. In the work of the gospel, teaching and healing are never to be separated" (White, 1905, p. 140). A theology and ministry of healing are holistic concepts which restore wholeness to the brokenness of the world by engaging every aspect of the human person— body, mind, spirit, social/relational, and emotions to reduce the risk factors of obesity (Anshel & Smith, 2014). It acknowledges and recognizes that we are powerless to heal ourselves and looks outside of ourselves to God. It is a theology that compels us to point all with whom we come in contact with and minister to, to look to Jesus and live (Num 21:8-9).

CHAPTER 3

LITERATURE REVIEW: ETIOLOGY OF OBESITY MANAGEMENT, AND SPIRITUAL INTERVENTIONS

Introduction

This chapter reviews literature mainly from 2005-2020 on the subject of obesity. The section begins by defining obesity and overweight, exploring its etiology, as well as associated risks. The impact of economics, urban design, and public policy on obesity were considered, as well as various approaches to weight management.

The final section of this chapter provides suggestions about what steps faith-based organizations can take to promote an environment of health and wellness. I will briefly survey a history of Adventist health outreach programs for the community, engaging with various Adventist publications that have been written on the subject.

The conclusion highlights various implications for a faith-based weight loss program as derived from the literature, which are: (a) the most effective weight management interventions incorporate elements of physical fitness, nutrition, social, and behavioral change modules, (b) a faith-based health program should be problem specific, (c) acknowledge that behavior cannot change without God's special intervention, (d) encourage participants to develop a healing relationship with God through prayer and the promises of the Bible, (e) employ scientifically sound information regarding the specific problem and provide practical behavior change strategies, (f) thoroughly and honestly collect and document hard data and results, and (g) provide long term follow-up.

Suggestions and recommendations are specific to Northeast Florida and to the west side of the city of Jacksonville in particular.

Definition, Etiology, and Associated Risks of Obesity

"Obesity means having too much body fat" NIH (2021b), while to be overweight means that one's weight is higher than what is healthy (CDC, 2021d). Overweight is classified as having a body mass index (BMI) between 25 and 30, and obesity is classified as having a BMI of 30 or higher (CDC, 2021d). When calculating BMI in children and teens, age and gender are also taken into account (CDC, 2021b). I believe it is important to note that researchers have found that BMI cut-off points for determining obesity and overweight have largely been based on people of European descent (Razak et al., 2007), nevertheless adjustments have not been made to account for ethnic diversity (World Health Organization, 2004).

The cause of obesity is multi-faceted involving genetic, nutritional, metabolic, energy expenditure, psychological, behavioral, and sociocultural components (Koski & Naukkarinen, 2017). Traditionally, the focus has been on energy homeostasis vs. energy imbalance in the body, that is, energy intake exceeding energy expenditure (Reilly, 2007). However, the paradigm has now shifted to include the following risk factors: (a) genetic (Singh et al., 2017), (b) endocrine (NIH, 2021c), (c) adverse childhood experiences (Felitti et al., 1998), and (d) sleep deprivation (St-Onge, 2017).

Genetic and Endocrine Risk Factors

Genetic risk factors do not depend on any single particular gene, but rather on a

complex interaction between genetics, heredity, environment, developmental factors, gender, and bone/muscle mass (Perusse, Rice, & Bouchard, 2014). Hypothalamic disruption is a genetic risk factor that can inhibit feelings of satiation while eating, thus encouraging individuals to over-consume food (Timper & Brüning, 2017). Though many of these genetic factors are out of our control, their effects can be counteracted through intervening measures (Xia & Grant, 2013).

Another fascinating genetic component is that of perinatal and early infant influences which may elicit metabolic responses that can contribute to lifelong tendencies to overweight and obesity (Simeoni, Armengaud, Siddeek, & Tolsa, 2018). This can take place by heightening insulin levels in the fetus either through under or over nutrition by the mother (Patel & Srinivasan, 2010). Though studies related to this subject are contested, breastfeeding appears to be a protective factor against overweight and obesity based on its nutritional value and self-mechanized portion control (Modrek et al., 2017).

> Breast milk provides a moderate amount of calories and nutrients for infants, such as sugar, water, protein and fat....In contrast, formula feeding provides higher levels of fat and protein than the baby needs. Higher protein and fat intake in early childhood have been associated with adiposity. Moreover, breast milk ...contains bioactive substances such as leptin and ghrelin, which can influence the proliferation and differentiation of the infant's adipocytes. Thus, breast milk is rich in effective ingredients with higher nutritional value. (Jing et al., 2014, pp. 7-8)

Adverse Childhood Experiences and Sleep Deprivation

There are many other stress-related hormones that can change one's metabolic state and as a result impact their weight. Adverse childhood experiences (ACE's) can "become biologically embedded" via chronic stress response (Wiss & Brewerton, 2020). In his original study, Felitti (1998) found a correlation between childhood trauma and adult mortality rates. The higher the number of childhood exposures the higher the

percentage of health risk factors, including obesity.

The connection between sleep deprivation (SD) and obesity is clear, however the cause is still uncertain (St-Onge, 2017). A few proposed biological pathways are (a) more opportunities to eat due to longer wake hours, (b) impairment of hormone regulation which control satiety, and (c) increased fatigue leading to less physical activity (Ogilvie & Patel, 2017).

Behavioral and Environmental Risk Factors

Environmental factors such as a sedentary lifestyle, watching television, playing video games, lack of exercise (Iaru et al., 2016), and dietary factors such as eating calorically-dense low nutrient-rich foods, portion control, as well as demographic factors like gender (females [38.3%] tend to be slightly more prone to overweight and obesity than males [34.3%]) (Ogden, Carroll, Fryar, & Flegal, 2015), all have an influence on levels of overweight and obesity.

Nutritional Risk Factors

Diets rich in saturated fat, sodium, added sugars, cholesterol, and protein has been consistently shown to be a cause of overweight and obesity (USDA, 2020, pp. 37-50). Of note is a study conducted showing that Seventh-day Adventists who are ovo-lacto vegetarian (a diet low in fat) are 16 pounds lighter than non-vegetarians, with vegan Adventists (who adhere to an even lower fat diet) being 30-32 pounds lighter than non-vegetarians (Tonstad, Butler, Yan, & Fraser, 2009).

Scientists tell us that historically humans lived as hunter-gatherers or in agricultural groups. What was grown or gathered was naturally low in fat and sugars.

With the rise of modern industrialization, time pressures, convenience, marketing, economics, a desire to get more for less, and indulgence, societies began to ingest foods high in fat, sugar, and sodium. Obesity is one of the first Western diseases to emerge when civilizations begin to modernize (Armelagos, 2010). Media and commercials, fast-food restaurants, vending machines, colas, sweetened carbonated beverages (soft drinks), fruit drinks with added sugar (Malik, Pan, Willett, & Hu, 2013; Pereira, 2006, 2014), snacks, cookies, candies, deep-fried foods, refined foods, and larger portion sizes are all creating an obesogenic environment. The human body has not been genetically adapted to successfully assimilate such a diet (Mattes & Tan, 2014).

Associated Risks of Overweight and Obesity

Obesity and overweight can lead to the following complications: metabolic syndrome, hypertension, atherosclerosis, heart disease, cardiovascular disease, stroke, heart attack, diabetes, elevated lipids- high blood cholesterol/triglycerides, non-alcoholic fatty liver disease, back pain, osteoarthritis, and gallbladder disease (NIH, 2021c).

A study conducted in Jacksonville, Florida, which focused on overweight and obese children with type two diabetes found that both the adults and parents, as well as the children severely underestimated the health risks involved (Curry, 2009).

Psychological and emotional distress such as bouts of depression and anxiety is another consequence among those who are overweight and obese. The cause for this is still being investigated, but it is believed that metabolic disturbances involving the hypothalamic, pituitary, and adrenocortical axis are the cause (Rivenes, Harvey, & Mykletun, 2009). Other manifestations of emotional distress are low self-esteem, body shame, social isolation, and various eating disorders (Boisvert & Harrell, 2014). Those

who are obese and overweight can experience discrimination and social stigma. Ideas that the overweight and obese are lazy, sloppy, and unintelligent are pervasive in the work place, healthcare environments, and social settings (Puhl & Heuer, 2009).

Other associated risks of overweight and obesity include: (a) increased mortality rate by 20%, (b) pulmonary complications such as sleep apnea, asthma, and diminished aerobic tolerance, (c) renal failure, kidney stones, or swelling of the glomerulus, (d) musculoskeletal decline leading to bone fractures, Blount's disease, or flat feet, (e) polycystic ovaries or infertility, (f) in children dental health issues and attention-deficit hyperactivity disorder, and finally (g) obesity related cancers such as postmenopausal breast, colon and rectum, uterine, kidney, pancreatic, and esophageal cancers (Birks et al., 2012; Borrell & Samuel, 2014; Philippas & Lo, 2005; Pulgarón, 2013).

Obesity Rates in the United States

The rate of overweight and obese individuals has steadily been climbing in the United States since the 1940s. Percentages currently indicate that 66.1% of the US population is overweight (Hales et al., 2020; WHO, 2017, p. 236). Of these, 17% are obese children (ages 2-19), and 36.5% are obese adults (CDC, 2020c; Lo, 2014). Obesity and overweight are frequently seen in countries with established market economies—United States, Europe, and Australia. Obesity is rare in Africa, the Middle East, and Asia (Bazian, 2017), though it is on the rise to the degree and intensity with which its citizens adopt a Western diet (Low, Lee, & Samy, 2015).

Statistics in Duval County, Florida, show 65.4% of adults are overweight or obese. The state average is 63.2%, and again 66.1% is the national average. Also, 29% of

middle school and high school students in Duval county are overweight or obese, with 28.2% being the state average ("Jacksonville statistics: Healthiest weight profile," 2016).

Obesity and Socioeconomic Status

There also seems to be a relationship between obesity, socioeconomic status, and educational experience (Peña & Bacallao, 2000). Among developed countries, obesity and overweight is mainly observed among those of lower socio-economic status and less educational experience. Research in the United States shows that the relationship between obesity and socioeconomic status differs by gender and ethnicity (Ogden et al., 2017). For example, in non-Hispanic White women, obesity increases as income decreases, while among non-Hispanic Black and Mexican American men obesity prevalence decreases as income decreases (Ogden, Lamb, Carroll, & Flegal, 2010). In developing nations, the opposite effect can be observed. There, obesity and overweight tend to increase with wealth and affluence (Olds & Maher, 2014).

Obesity: Ethnicities and Cultures

In the United States, prevalence of obesity among the four dominant ethnic groups stands at: Asian adults are 11.7% obese, White Caucasians are 34.5% obese, Hispanics are 42.5% obese, and Black Americans are 48.1% obese (Ogden et al., 2015). While childhood obesity has tripled in the United States since the late 1970s, recent evidence suggests that beginning in 2003 obesity levels have slowed down (Ogden, Carroll, Kit, & Flegal, 2012).

Obesity and Urban Design

Studies have also shown a relationship between urban design and obesity (Sallis, Floyd, Rodríguez, & Saelens, 2012). In North America, urban sprawl and the separation of residential and commercial lands seems to increase overweight and obesity, as does vehicular dependence (Mackenbach et al., 2014).

In a comparison study (Drewnowski et al., 2014) between the cities of Seattle, Washington and Paris, France, it was noted that the average distance to a supermarket in urban Seattle was 2.6 kilometers as opposed to 440 meters in urban Paris. Rates for supermarket distances in suburban Seattle were 3.64 kilometers as compared to 1.41 kilometers in the Paris suburbs. The rates of obesity for those in urban Seattle were 8%, whereas those who lived in the suburbs were 27%. Rates of obesity for urban Paris were 7% and for the suburbs 16%. Therefore, it appears that distances to supermarkets, and shopping centers affect levels of obesity.

Similarly, public policy regarding paths, trails, bicycle lanes, public transportation, sidewalks, pedestrian traffic safety, appropriate lighting, and proximity of frequented locations such as commercial, vocational, educational, and recreational areas have all shown to lower overweight and obesity by encouraging more physical activity (McConville et al., 2011).

Studies carried out in the United States indicate that populations exposed to green spaces have lower levels of morbidity rates and are more likely to be physically active when recreational facilities or green spaces are within one kilometer of their home (Frank, Kerr, Chapman, & Sallis, 2007; Gordon-Larsen, Nelson, Page, & Popkin, 2006).

Building on this work, Coutts, Horner, and Chapin (2010) took Geographical Information Systems (GIS) to analyze not just the amount of green space in Florida, but

also access to it and found that indeed, access to green space is the most important factor in measuring how supportive local environments are for physical activity. The average distance to green spaces in Florida is nearly 7 km. (4.3 miles). In harmony with these findings, Duval County in Florida, the government seat of Jacksonville, has only 5.2% of the population living within half of a mile (0.8 km.) of a recreational green space. In contrast, 25.2% of the population live within walking distance to a fast food restaurant, while only 20% live a half mile (0.8 km.) or closer to a healthy food store ("Jacksonville statistics: Healthiest weight profile," 2016). Areas comprised of high density fast food restaurants, known as food swamps, can be an accurate predictor of obesity (Cooksey-Stowers, Schwartz, & Brownell, 2017). It appears that planning for and granting accessibility to green spaces and other healthy environments has not been a priority in Duval County.

Overweight and Obese Management

The goal of weight management is lifestyle modification (Tchang et al., 2021). That is, engaging in sustainable weight loss practices. Comprehensive approaches to weight loss, including behavioral, psychological, pharmaceutical, and surgical have been shown to be effective forms of weight management (Ryan & Kahan, 2018). The greater the number of interventions applied simultaneously, the greater the results achieved (Bray & Ryan, 2021; Catenacci & Wyatt, 2007). In the following paragraphs we will consider each of these modes of intervention.

Behavioral

While obesity is not caused solely by behavior, yet behavior is one of the few things that can be controlled (Prochaska, DiClemente, & Norcross, 2007, p.13). Behavioral methods primarily have to do with physical activity and nutrition (S.Kahan, 2016). The role of nutrition and exercise appears to be central aspects of successful weight management (Fruh, 2017; Hassan et al., 2016). Behavioral methods seek to address and correct the imbalance of energy intake versus energy expenditure (D.Kahan & McKenzie, 2015).

Nutrition

Research has demonstrated how nutrition can play a role in reversing abdominal obesity along with its comorbidities such as type 2 diabetes, metabolic syndrome, hypertension, and coronary heart disease (Watson, 2014). Individuals such as Caldwell Esselstyn (2011), Colin Campbell (2016), and Dean Ornish (2007) have become commercially popular for promoting the benefits of nutrition in the reversal of many non-communicable diseases such as overweight and obesity. Less visibly recognized among the public, but no less important, the CDC and Health and Human Services (HHS) have also promoted nutrition as a management strategy (CDC, 2011). Though no longer active, nutrition was also a focus of the "Let's Move" national campaign (Obama, 2017).

In 2006, the state of Mississippi had the highest percentage of overweight and obesity in the United States, and plans were drawn up in the hopes of slimming down. These plans were largely behavioral in nature: (a) junk foods (i.e., snacks and sugary drinks sold via vending machines) were to be removed from educational facilities,

(b) physical education would be mandatory in high schools, and (c) local pastors were encouraged to promote healthy behaviors and practices such as regular health checks, nutritional education for parishioners, and host exercise nights, among other suggestions ("Big is bad," 2006).

There was opposition to this proposal since vending machines are a source of income to local schools and their removal posed a threat for potential loss of revenue. Yet, experts continue to call for more fruit and vegetables to be served at schools (O'Toole, Anderson, Miller, & Guthrie, 2007). An example of this would be to (a) create healthy food environments by having schools provide healthy foods, creating reader friendly food labels, restrict marketing to children, and eliminate trans fatty acids in foods: (b) promote courses on healthy eating targeting mothers and children, and communication campaigns to the public: (c) reinforce these same nutritional goals through primary health care facilities and in training health professionals to be competent in nutrition guidelines, and finally, (d) survey, monitor, and evaluate children under the age of five and make adjustments as needed (2018). An area that is currently gaining attention as a form of caloric restriction is intermittent fasting (Wilkinson et al., 2020).

Physical Activity

For weight gain to be slowed or reversed, it is necessary for energy expenditure to exceed energy input for a sustained and defined period of time. This is where physical activity comes into play. Exercise for those who are overweight should take into account injury prevention, strengthening of the muscles, the impact of adipose tissue mass loss, and motivation (Hansen, 2013).

Exercise reduces morbidity and mortality rates, along with the growth of abdominal and visceral fat (González, Fuentes, & Márquez, 2017). It reduces and reverses the occurrence of coronary heart disease, hypertension, the risk of type 2 diabetes, prevents certain cancers such as colon and rectal cancer, and osteoporosis (Damian, Oltean, & Damian, 2018).

The earlier an individual engages in and sustains physical activity, the greater the results. Though increasingly, disregard of physical education in schools has been a trend, research indicates the importance of maintaining it as part of the curriculum.

Physical activity guidelines for children are to spend 60 minutes daily in aerobic, muscle-bone strengthening exercises. Adult guidelines are similar in that 60 minutes of exercise, five days a week is encouraged (Health and Human Services, 2018b). Yet statistics indicate that 76% of boys and 82% of girls do not meet these guidelines (*The 2018 United States report card on physical activity for children and youth*, 2018). Adult statistics stand at around 50% not getting the base recommended quantity of activity (three days of exercise) with 70% not getting vigorous activity (Health and Human Services, 2018a).

Statistics in Jacksonville report around 50.9% of adults are not meeting requirements for aerobic activity and 58.9% are not meeting requirements for muscle/bone strengthening activities, which is in line with the national statistics, but they are better than the state average in Florida which is 55.2% and 61.8% respectively ("Jacksonville statistics: Healthiest weight profile," 2016). Childhood physical activity rates in Jacksonville stand at 80.2% not meeting the national guidelines while the state average of Florida is 77.1% ("Jacksonville statistics: Healthiest weight profile," 2016).

Trauma Informed Care and Psychotherapy

For some individuals, the cause of obesity is not as simple as adjusting behavior, but rather looking at the root cause of said behavior. Dr. Wolmann states that many of the patients he treated for obesity were compulsive eaters, and he likens this to other types of addictions such as alcoholism or drugs.

> In treatment of addictions, I avoided a head-on confrontation with their well-entrenched compulsive drinking, or worse, drug addiction. I do not believe that one can expect good results with a direct attack on pathological overt behavioral patterns. Usually, I have assumed that the need to take drugs or alcohol is rooted in the unconscious, for consciously all of my patients agreed that it was very bad to be addicted. Their addictions were symptoms of deep underlying emotional problems, and eventual removal of the symptoms could not last for long if the underlying causes were left untouched. (Wolman, 1982, p. 193)

Kathryn Rand and others (2017) argue there is evidence to show behavioral forms of weight loss alone are not successful in the long term and therefore those who struggle with overweight and obesity need greater levels of emotional, psychological, and social well-being. Psychological well-being is a focus on self-acceptance, purpose, personal mastery and growth. Emotional well-being is about heightening awareness of positive and negative emotions, while also emphasizing happiness and life satisfaction. Social well-being has to do with social acceptance, integration, and coherence.

ACE (Adverse Childhood Experiences) studies show that “adolescents who reported an ACE were 1.2, 1.4, and 1.5 times as likely to have overweight, obesity, and severe obesity, respectively, compared with their peers with no ACEs” (L. Davis, Barnes, Gross, Ryder, & Shlafer, 2019). Therefore, incorporating trauma informed care as part of a weight management program should be considered (Estevez, 2021; McDonnell & Garbers, 2018).

Other studies have focused on specific aspects of psychology and obesity such as women's perspective on body image, weight gain, pregnancy, and perceptions of post-partum weight retention (Pirotte & Libert, 2013). The role of parents and spouses is also significantly important in providing emotional support to children or significant others in terms of weight loss (M. Campbell, Benton, & Werk, 2011).

Medical and Surgical Intervention

For individuals who have a BMI greater than 40 or greater than 35 and with severe illnesses, bariatric surgery followed by body contouring procedures are an option (Aminian & Schauer, 2014). However, surgical candidates should be aware of potential complications post-surgery such as leaking, adhesions, and obstruction. There will also be ongoing vitamin, iron, calcium, protein, other nutritional deficits, and lifelong nutritional monitoring as a result of bariatric surgery (Bal, Finelli, Shope, & Koch, 2012; Lupoli et al., 2017). Candidates should also be aware that if eating habits and behaviors are not changed, weight regain is a very real possibility. It is not uncommon for patients to undergo multiple surgical procedures in order to maintain weight loss (Athanasiadis et al., 2021; Velapati et al., 2018).

The most popular form of body contouring is liposuction cosmetic surgery. Over 400,000 individuals undergo this procedure every year. However, the health benefits on lasting weight loss are unclear. There are also complications that may develop from this type of procedure which are best avoided (Fraterrigo, Fontana, & Klein, 2014).

Pharmacological interventions are also another option for weight loss. For those who need a kick start, I believe this is a good option, however it must be kept in mind that there are always contraindications for medications and consultation with one's

physician is of utmost importance. Medications, such as liraglutide or semiglutide slow down digestion and increase the production of insulin, thus ensuring satiation with less food (de Souto Barreto et al., 2021). Other medications such as Phentermine and Benzphentamine serve as appetite blockers, which may also lead to weight loss (S. M. Smith, Meyer, & Trinkley, 2013). However, the consistent consensus is that in order for these medications to be effective in the long term, there must be some type of behavioral intervention that must take place in the form of changed eating habits and/or exercise routines (Khoo et al., 2019).

Weight Loss Management in Jacksonville, Florida

In personal conversations with health care providers, I have been made aware of a few past attempts at weight loss intervention programs in the city of Jacksonville, FL. In 2007, Florida Blue in connection with the Duval County Public School system initiated a comprehensive 6-month weight loss pilot for employees (Appendix E). The pilot was designed as a 12-week program, with a check-in and other interventions taking place at the four and six month marks. At the end of the 12-weeks, participants had lost an average of 16.6 lbs. Unfortunately, however, due to the time commitment involved, costs, and proper vetting of participants, a second program never materialized.

Carolyn Tucker, developer of the Health-Smart Behavior Program, led another major community weight loss effort in Jacksonville, FL. She along with her team worked closely with UF Health Jacksonville for many years seeking to improve community health in relation to obesity in partnership with various constituents of the city, including local churches (Carolyn M. Tucker, 2020; Carolyn M.Tucker et al., 2017).

Another resource for weight-loss in the city is Ascension Health St. Vincent's, who maintains an active website for community weight loss services, though the focus is more on bariatric surgery rather than behavioral intervention ("Ascension St.Vincent's Wellness and Fitness," 2021). Baptist Health Jax has a working partnership with the local YMCA's and has several healthy living centers where cooking classes are given as well as free health coaching, health screenings, and health lectures ("Y healthy living centers," 2021). Finally, Mayo Clinic was looking to enter the arena of community lifestyle medicine and in 2019 hired a physician from Duke University to oversee the venture, but I am not aware of any further developments.

Faith Communities and Weight Loss

There is a vast amount of literature that currently exists within Christian circles regarding weight loss. Books such as *The Jerusalem Diet: The "one day" Approach to Reach Your Ideal Weight and Stay There* (Haggard, 2005) or Gwen Shamblin's (2000) *Rise Above: God Can Set You Free From Your Weight Problems Forever* are just a small sampling of what potentially could be upwards of over 180 Christian books and programs focused on weight loss within the last 30 years (Griffith, 2008, pp. 291-302). However, I am not aware of data showing their long-term effectiveness.

Despite the plethora of Christian materials available on weight management, church leaders feel there is still a great need for faith-based organizations to more actively engage in the promotion of healthy habits that will lead to a decrease of obesity and overweight (Opalinski, Dyess, & Grooper, 2015). While exploring the role of faith and healing is outside the scope of this dissertation, it is nonetheless fascinating that from over 1,200 empirical studies of religion and health that have been published in peer-

reviewed articles, nearly three quarters to 90% evince positive findings related to a patient's faith and their subsequent healing (Levin, 2009, p. 77). How faith heals is indeed a subject worthy of further research.

Adolescents (12-17 years old) have found faith communities to be a source of social support for healthy behaviors such as not smoking or using drugs, and encouraging sexual abstinence until marriage. Such adolescents are also better able to cope with stress, anxiety, and depression (Callaghan, 2006; Rew, Wong, Torres, & Howell, 2007). Among emerging adults (18-25 years old), the church is looked to for the active promotion of healthy behaviors by teaching concepts about how a believer's body is the temple of God and to learn more about health, provide fitness classes, and even accountability groups (Horton, 2015). Indeed, another study shows those who engage in the social and emotional support found within faith-based communities show a marked increase in physical activity and lower blood pressure (Kanu, Baker, & Brownson, 2008).

Despite religious beliefs and participation having the potential to encourage healthier lifestyles, certain religious groups actually have higher rates of overweight and obesity than non-religious groups. In a fascinating study by Cline and Ferraro (2006) covering a large gamut of religious bodies, from Protestant to Catholic, Fundamentalist to Liberal, Jewish to Muslim, Hindu, Buddhist, and everything in between, it was found that Baptist and Fundamentalist Christians suffer from the greatest percentage of overweight and obesity—nearly 30%. These findings

> revealed a significant relationship between being Baptist and obese for women in the United States....Supplementary analyses point to the primacy of education and race as being the key to explaining the association between religion and obesity: African Americans and persons with limited education are more likely to be obese and are also more likely to be affiliated with Baptist or fundamentalist religious groups. (Cline & Ferraro, 2006, p. 278)

This same article also made an interesting comparison that just as consuming TV and electronic media can promote overweight and obesity, so too watching religious media showed a connection to higher rates of overweight and obesity, whereas those who engaged in other aspects of religious devotion such as church attendance or church related functions had lower levels of obesity and overweight (Cline & Ferraro, 2006).

Anshel and Smith (2014) highlight several ways which religious leaders and faith-based organizations can influence their communities towards healthier living. Their suggestions are to (a) model healthy practices, (b) become vocal proponents of healthy living, (c) connect with health professionals and fitness coaches to advance health in the community, (d) sponsor wellness programs through local fitness facilities (YMCA, fitness clubs, running/walking clubs, and 5Ks, among others), (e) sponsor and schedule workshops and seminars that cover a wide range of health-related topics (physical activity, nutrition, cooking classes, eating disorders, mental health, etc.), (f) develop accountability groups focused on health, and finally, (g) develop mentoring programs (Anshel & Smith, 2014; Smietana, 2013).

Adventist Health Ministries and Weight Loss

Since 1863, Seventh-day Adventists have had an awareness of the importance of healthy living, and Ellen White in particular (one of the church's co-founders) wrote heavily on the subject. In her understanding, comprehensive health ministry (or health evangelism/outreach, health reform/medical missionary work, as it was called in her day) is the right arm of the gospel message, that is, just as Jesus engaged in a ministry of healing and preaching, so in our day, health education/promotion should go hand-in-hand with the proclamation of the gospel (White, 1948). White calls health ministries the

gospel of health. The idea is that people can indeed enjoy good health, good health is a gift from God, and good health is good news!

I believe that the Seventh-day Adventist church has done well regarding health ministries, after all, Adventists are anecdotally known for two main things: (a) Saturday Sabbath and (b) not eating pork/being vegetarian. From time to time, Seventh-day Adventists come into the spotlight for their healthy living practices such as the Blue Zones and also in a national report highlighting faith-based organizations that promote health, including the InStep for Life initiative (Buettner, 2008; Segal, St. Laurent, Lang, & Rayburn, 2012). But moving to the hard data, studies such as the blue zones, the five major Adventist Health Studies, not to mention several hundred health related studies from the 1950s until recently all seem to indicate that Seventh-day Adventists as a whole are the healthiest people on the planet (E. Adams, 2020; "Adventist health studies,").

The Seventh-day Adventist church has historically offered a variety of healthy lifestyle intervention programs for the community. Some of these programs have been developed by the church, while others have been developed by supportive Adventist ministries. These intervention programs cover the span of stop-smoking clinics, addiction recovery, cooking classes, natural remedies, and lifestyle coaching (General Conference Health Resources, 2021; North American Division Health Ministries, 2021). While many of the church's current lifestyle programs encourage healthy living, there does not appear to be a program specifically targeted and marketed for weight loss or weight management by the Adventist church.

In the 1970s, the church's Health Ministry Department did develop a weight-loss management program called Wā-rite (Stoneburner, 1975; Wendth, 1977). However, with

the merger of the health and temperance departments of the General Conference of Seventh-day Adventists in 1980 and the ensuing organizational lapses and uncertainty about administrative jurisdiction, the program fell out of use (M. Adams, personal communication, September 2, 2021). During the early 1980s, Loma Linda School of Health also had a weight management program (Register, Wiesseman, & Hopp, 1982).

Outside of the church, there are private Adventist entrepreneurs who have weight management programs, such as Don Hall's "Weight Management for Life" (Hall, 2021). Another program called Full Plate Living and the Full Plate Diet encourages individuals to "add more whole plant-based foods to the meals they're already eating" and indeed nutrition is an important aspect of weight management (AIH, 2021). But without question, one of the most successful lifestyle intervention programs is CHIP (The Complete Health Improvement Program) (CHIP, 2021). Though technically not a weight management program, CHIP participants do lose weight. Programs such as these have a broad appeal outside the Seventh-day Adventist Church as community health education programs. These programs can accommodate spiritual components into their sessions, but the actual curriculum is spiritually neutral. It's evangelistic success or failure may be due to a large degree on the intentionality or lack thereof of its hosts.

Self-supporting Adventist lifestyle centers are currently helping people make changes in their lifestyles such as Wildwood Lifestyle Center, and Uchee Pines Institute. There are also other lifestyle centers who have weight management components, but these programs are inpatient admission only.

Therefore, while there are various healthy lifestyle programs run by the church and also by supportive Adventist ministries, my proposed project is specifically focused

on weight loss and has an intentional faith-based element built into it. And this is where I believe that my project will make a unique contribution to the existing body of Adventist health ministries.

A Model for Adventist Weight Loss Outreach

In his book *The Principles and Practices of Health Evangelism* Elvin Adams (2017) reemphasizes the Adventist church's long held stancee of intentionally incorporating faith-based elements into health outreach programs and applies it specifically to weight management (Nelson & Van Dolson, 1974; Williams, Kuzma, & Van Dolson, 1997). In 1974 Adams designed and developed a weight management program called "Best Weigh" and has conducted 100s of these programs in churches all across the United States and abroad (E. Adams, 2021).In his book he describes a model for implementing a scientifically sound, rigorously evaluated, faith-based health evangelism program. In reviewing the literature, what Adams writes is not new or unique to Adventist health ministries, but I found it helpful to my project because of his expertise in weight management.

In his book he discusses the theology and philosophy of health evangelism from both the scriptures and the writings of Ellen White. He lays out a step-by-step guide on how to plan, organize, locate, launch, and evaluate a health program. There is a chapter on recruiting, screening, training, and mobilizing volunteers.

Adams makes it a point of emphasis that there be no separation between the proclamation of the gospel and health evangelism within the Seventh-day Adventist church. In his opinion, he believes there are certain health programs that are scientifically sound and contain useful information intelligently presented, but that are secular or have

little to do with faith. He contends that in these programs participants never learn that there is a God that can help them change their behavior. Participants never learn to pray. Participants never learn to develop a relationship with loving church members who can help encourage them in their new behavior (Adams, communication to author, August 13, 2021).

Adams believes that while health ministries should be unapologetically evangelistic, yet they are not the venue for the introduction of distinctive Seventh-day Adventist doctrines. Instead, the gospel is shared with participants in relation to the specific problem they face. He writes that health evangelism is problem specific evangelism. In other words, how does the gospel help me quit smoking? How can God help me with obesity? How does the gospel heal me from my addiction to alcohol, drugs, sex, pornography, gambling, etc. This is one way in which faith-based health programs can be intentionally evangelistic; they are a practical demonstration of how God changes a person's behavior, actions, feelings, impulses, and desires. He then challenges the reader, "If people do not find God's help with their problems when they attend your health evangelism program, why should they ever decide to become a member of your church?" (E. Adams, 2017, p. 28)

In line with previous Adventist statements, Adams explores the concept of behavior change (Nieman, 1992, pp. 42-49; Williams, Kuzma, & Van Dolson, 1997, pp. 73-80). He believes that the human will, in and of itself is not capable of producing permanent change in the life. Only God has the power to change us (E. Adams, 2017, p. 114). Therefore, participants should be taught that they need to look to God for transformation. And this, he writes, should be the main distinction between Adventist and

secular health programs, that is, belief in the healing ministry of Jesus and the active power of God to change lives even today. Jesus is what the Seventh-day Adventist Church brings to the table of health and healing. If Adventist health programs leave God out and only contain accurate scientific information, then the church is simply providing a redundant service that is already offered by others and perhaps packaged even better than our own. What makes the real difference in people's lives is Jesus. Jesus can help people stop smoking. Jesus can help people lose weight. Jesus can take away an addiction to alcohol, drugs, pornography, sex, gambling.

However, Adams says that while

> the church is certain about eternal salvation through Jesus Christ, the church has been decidedly less certain about how Jesus delivers a person from harmful behaviors, habits, and addictions....Many in the church will deny this, but I ask you to articulate the doctrine of behavior change….There is broad agreement that behavior change can occur through a relationship with Jesus, but the steps haven't been formalized very well. The details are fuzzy. (E. Adams, 2017, p. 115)

He writes that participants must be shown in practical ways how God can deliver them from their specific problem (E. Adams, 2017, pp. ix, 2). Participants must be introduced to the promises of scripture that speak specifically to their problems. Participants must be taught how to pray and develop a healing relationship with God, for it is in prayer that people connect with Jesus (Dybdahl, 1997, pp. 29-38).

Finally, Adamsbelieves that the information shared within the health evangelism program should be grounded on sound scientific evidence. He believes in the scientific method and of the importance of documenting, recording, and tracking hard data as a means of (a) evaluating the effectiveness of the program in general, (b) evaluating the individual health components in particular, (c) determining the program's evangelistic potential (including wrestling with the difficult task of reconciling the absence of

baptisms in relation to health evangelism) (E. Adams, 2017, p. 189). Adams personal contention is that he believes no one is tracking and measuring this information (E. Adams, 2017, p. 189; Gudzune et al., 2015; Wee, 2015). I believe this may be a point of honest academic inquiry.

The burden for data collection has typically fallen upon local church leadership. In the past, documented statistics have been found to be inaccurate or incomplete and the church in North America is now primarily focused on attendance, baptisms, and contributions (ABC's). However, perhaps with the use of modern technology and apps, data collection and analysis could be made easier and more accurate than before (Ghelani yet al., 2020).

I admire Adam's intellect and respect his opinion and many years of experience. As stated earlier, the majority of ideas found in his book are not original to him but are rather long standing beliefs held by the Adventist health ministries department (General Conference of Seventh-Day Adventists, 2012; Nieman, 1992). His writing does come across a bit critical towards the work that the Adventist church and other supporting ministries are doing in the realm of health ministries, and while he may have some valid concerns, I do believe that taking an affirming approach should be the preferred course of action. If one can avoid being negatively influenced by his criticism, and also maintain an openness to the diversity and reality of cultural and secular ministry contexts, I believe his book can be a valuable resource for health evangelism.

Summary and Implications

Based on the literature review, a multifaceted approach to weight loss was designed and implemented including physical fitness, nutrition, social, and behavioral

change modules. While the incorporation of trauma informed care is valuable, it does require a certain level of expertise that we were not prepared to offer.

Keeping in line with traditional Adventist approaches to health outreach, I used lifestyle intervention methods as well as being intentional about incorporating faith-based practices. Participants were pointed to God as the active agent of change and encouraged to participate in daily Bible readings and prayer.

While keeping track of program data is burdensome, I do believe that by the use of technology, this could once again become a very important, feasible, and realistic goal in helping to measure and determine the effectiveness of the program both in its evangelistic and weight loss goals. I wish to make a unique contribution by specifically focusing on a faith-based approach for weight loss, benefiting the residents of the west side of Jacksonville.

CHAPTER 4

DESCRIPTION OF THE WEIGHT LOSS PROGRAM

Introduction

The following is a proposal for implementing a faith-based weight loss program, free of charge, to the residents of the west side of Jacksonville, FL. This project will consist of no more than 30 participants engaging in a 40 day (6-week), faith-based weight loss program. As reviewed in chapters 2 and 3, the weight management components of this project will include behavioral, spiritual, and psychological modules. The behavioral modules will focus on exercise, nutrition, caloric restriction, and behavior change. The spiritual components focus on Bible readings related to weight loss and prayer. The psychological aspects will involve weekly support group meetings, daily decisions, along with a focus on emotional health, body image, and self-esteem.

This chapter is divided into three main sections. The first section deals with the development of the project. The second section describes the project in detail, and the final section defines the expected goals and outcomes.

Preliminary Preparations

Advertising/Marketing/Recruitment

Advertising, marketing, and recruitment have historically been a challenge during my time at Jacksonville First. Multiple mailings have been done throughout the last 10 years. The most effective advertising campaigns were conducted during my first two

years there. There has probably been a total of 15 or 20 community members who attended a series of evangelistic meetings resulting in two baptisms. We are thankful for those two, however only one is still with us. The most effective results seen in terms of baptisms, integration, and retention have come from personal invitations extended by church members to their friends, family, neighbors, or co-workers.

The church has also engaged in large mass mailings sponsored by the Southern Union Conference of Seventh-day Adventists. The mailings reached approximately 50,000 to 70,000 homes. Smaller mailings have also taken place. Our church has advertised on the radio (both Christian and secular stations), social media, video advertising, and full-page color advertisements in local newspapers. Church members have gone door to door, at times knocking on the door, and at other times simply leaving door hangers. Flyers have also been put up in local businesses. Student colporteurs have left correspondence Bible studies in the homes of community members with the church's return address on them, and to the best of my recollection, not a single person has responded to any of these endeavors.

Even though advertising results have been inconsistent and disappointing in the past, advertising is still a necessity. In speaking with local community leaders and listening to their past experiences, their observation is that the best turnouts are from personal invitations from friends or acquaintances. While that might be true, I still feel that public advertising is indispensable. Therefore, a targeted mailing will be sent to westside residents living in zip codes that are within a five-mile radius of the church (Appendix B). Church members will also be encouraged to invite family, friends, neighbors, and colleagues.

Community Health Resources

In preparation for the launching of the project, community health leaders from Baptist Health Jacksonville will have been consulted to become partners and advisors on the project. The goal is that participants in the project will stay connected and make use of available community health resources after the project is over as they continue in their journey towards wellness. Baptist Health Jacksonville currently offers free health screenings and health coaching sessions. Those who will not qualify for the program will still be encouraged to pursue the resources available at Baptist Health.

The 10-Week Plan: Project Overview

In chapter 3 I described a four-month weight management pilot that was conducted in Jacksonville, Florida in 2007, but was discontinued due to (a) the time commitment involved, (b) expenses of sustaining the project, (c) waning motivation, and (d) poor vetting of the participants.

Since longer programs appear to be less feasible, community health professionals prefer shorter, more intensive time periods such as six, eight, ten, or 12-week programs (E. Adams, 2021; Neal, Edgerton, LaMountain, & Ross, 2014; NEWSTART, 2019; Seward, 2013). Therefore, this project will last a total of 10 weeks and will be divided into three phases: (a) acceptance, (b) the main 40-day weight loss segment; and (c) final assessments (see Table 1).

Table 1

Project Schedule

Date	Time	Location	Lecture
Phase One: Acceptance Process			
Pre-Week 1	2:00 pm	7951 Lenox Ave Jacksonville, FL 32221	Biometric Screening & Assessments
Pre-Week 2	N/A	N/A	Assessments & Consent Forms
Phase Two: 40-day Weight Loss Program			
Week 1	5:00 pm	Cecil Field Track	Exercise
Week 2	“”	7951 Lenox Ave Jacksonville, FL 32221	Weight-loss Practices & Goals
Week 3	“”	“”	Nutrition
Week 4	“”	“”	Habits and Change
Week 5	“”	“”	Degenerative Diseases
Week 6	“”	“”	Emotional Health
Phase Three: Final Assessments			
Post-Week 1	8:00 am	Cecil Field Track	Biometric Screening & Assessments
Post-Week 2	5:00 pm	7951 Lenox Ave Jacksonville, FL 32221	Assessments & Project Evaluation

Phase one will serve as the launching point of the project. During this time, participants will undergo a biometric screening and will fill out various intake surveys and questionnaires to determine their eligibility and participation in the project

(Appendix A). Individuals who are accepted into the program will then move on to establish their goals and personalized exercise plan. All consent forms are to be filled out during this time and should be returned by the end of pre-week two.

Phase two will serve as the main weight loss section, spanning 40 days. Phase three will conclude the project with exit surveys, a final biometric screening, program evaluation form, community resources, and the next steps for participants.

Phase One: Acceptance Process

The program will launch with a biometric screening conducted by trained health professionals from Baptist Health Jacksonville. This screening will serve as an initial baseline measurement establishing participants' current (a) height and weight, (b) body mass index (BMI), (c) blood pressure, (d) lipids- HDL, LDL, total cholesterol, triglycerides, and (e) blood glucose. Participants' demographics will also be collected such as: age, gender, ethnicity, socioeconomic status, and educational levels. Additional details about the project such as expectations, description of the devotional readings, health metrics, and time commitments will be shared with participants during this first meeting.

Eligibility Requirements

Body Mass Index (BMI) and Age

The following four factors will determine an individual's eligibility for acceptance into the program: (a) BMI over 25, (b) 18 through 64 years old, (c) satisfactory completion of health assessments, and (d) completed consent forms.

Assessment Forms, Stages, and Process of Change

The various health assessments will seek to identify candidates' level of change, motivation, and determination. The first two assessments will establish what stage of change the participants are currently in regarding exercise and physical activity.

There are five stages of change: (a) pre-contemplation, (b) contemplation, (c) preparation, (d) action, and (e) maintenance (Prochaska & DiClemente, 1994). Only candidates who find themselves in the preparation, action, or maintenance stages will be accepted into the program. For candidates who fall into the pre-contemplation or contemplation stages, this will mark the end of their journey; however, if they would like further assistance, Baptist Health Jacksonville continues to be a ready and willing resource for them to pursue on their own—independent from this study.

The third assessment is called Process of Change (Nigg, 2014, pp. 106-108). This assessment delves deeper into the stages of change assessments by highlighting what processes participants are currently engaging with as they seek change. This third assessment serves various purposes. First is that of redundancy. This assessment helps scrutinize the results of the stages of change assessment and verifies its accuracy; therefore, giving the facilitator a greater level of confidence about those who are advancing in the acceptance process. Second, this assessment will shed light on the best strategy to employ, adapt, and to help participants on their journey towards change. Participants will also gain a greater awareness of where they are in the process of change and what their next steps look like.

Self-efficacy and Decisional Balance

The self-efficacy assessment will evaluate the participant's belief in their capacity to perform the various physical exercises of the program (Bandura, 2012). The decisional balance assessment will help clarify the candidate's view of exercise, whether they think positively or negatively of it and how ready they are to move into the next stage of change (Janis & Mann, 1979). Self-efficacy and a personal valuing of health is a strong indicator of individuals adopting healthier lifestyle practices (Jackson, Tucker, & Herman, 2007).

Get Active Questionnaire and Consent Forms

The final health assessment form is the Get Active Questionnaire, a widely accepted tool for evaluating the safety of participants engaging in physical activity. If participants answer yes on any of the questions, they will be asked to have their primary care physician or cardiologist sign and return a cardiovascular disease (CVD) consent form clearing them for physical activity. Participants with diabetes will be asked to have their primary care physician or endocrinologist sign the time-restricted eating consent form. Research indicates that time-restricted eating implemented with a few precautions is a fairly safe practice for diabetics (Gabel, Hoddy, & Varady, 2019).

The final consent form to be filled out will be the Rockport 1 Mile consent form. Participants who filled out the CVD consent form will also be asked to have their primary care physician or cardiologist sign and return the Rockport 1 Mile Consent form. All consent forms must be signed by the appropriate individual and returned in order to be

accepted into the program. Candidates will have two weeks from the initial biometric screening to make the necessary arrangements.

Goals, Exercise Plan, and Orientation

After the health assessment forms and appropriate consent forms have been returned, participants will schedule an appointment with an available coach from Baptist Health Jacksonville to clarify their own personal goals for the six-week portion of the project as well as drafting a personalized exercise plan. Once participants have satisfactorily completed all these elements, they will be ready to commence phase two.

Phase Two: 40-Day Weight-Loss Program

Why 40-days?

As stated in the literature review, the various modules incorporated in the weight loss program will be derived from a behavioral, psychological, and spiritual premise. Regarding the 40-day time frame, not only does it fit within the recommended duration for a lifestyle intervention program, but the concept of 40 days appears numerous times in Scripture and can help ground this project within a faith-based framework. As previously discussed in chapters two and three, grounding behavioral change within the biblical framework of looking to God as the active agent for healing is vital to a faith-based health evangelism program. While I do not believe that any specific reference to 40 days found in the Bible directly speaks to the issues of health and wellness, I do believe there are several lessons that can create a mindset favorable to behavioral change.

It goes without saying that many Christians participate in a yearly 40-day tradition called lent, and I would like to borrow certain aspects of this while shifting the focus

towards health, wellness, weight loss, and behavioral change. I have personally been following a modified lent/40-day health challenge for several years now, and based on purely anecdotal evidence, I have noticed positive health benefits from this practice such as weight loss, loss of adipose tissue and visceral fat, and general feelings of accomplishment and wellness; however, it has not come without effort or struggle.

There are various lessons a person can learn from the 40-days motif in Scripture such as recognizing it as a time for intentional change, deliberate planning, preparation, evaluation of the current situation, making decisions for a preferred future, and its association with trial and testing (Fitzgerald, 2005, p. 5).

Another aspect connected to a 40-day motif in scripture is that of fasting. While the fasting taking place in scripture is for religious reasons, there is undoubtedly a physical effect on the body. Fasting becomes an exercise in self-denial and sacrifice. Notice this interpretation of the fasting of Jesus:

> With Christ, as with the holy pair in Eden, appetite was the ground of the first great temptation. Just where the ruin began, the work of our redemption must begin. As by the indulgence of appetite Adam fell, so by the denial of appetite Christ must overcome....From the time of Adam to that of Christ, self-indulgence had increased the power of the appetites and passions, until they had almost unlimited control. Thus, men had become debased and diseased, and of themselves it was impossible for them to overcome. In man's behalf, Christ conquered by enduring the severest test. For our sake He exercised a self-control stronger than hunger or death. And in this first victory were involved other issues that enter into all our conflicts with the powers of darkness. (White, 1898, p. 117)

Therefore, part of the 40-day weight loss components will involve various methods of fasting and caloric restriction through which participants will experience self-denial and sacrifice, while also reaping the physical benefits.

Support Group

Support group meetings are a widely accepted practice for weight management (Wadden, Tronieri, & Butryn, 2020). Wadden (2020) suggests having more than 14 meetings within a six-month time span, but from conversations with community leaders, an endeavor of that length is difficult to sustain. This project proposes a total of six weekly support group meetings, lasting 90 minutes each. Though on the short end, the program will be evaluated for effectiveness of duration. One of the purposes in having a support group meeting is to encourage accountability, discovery, and encouragement (Wollersheim, 1982, p. 241). The meeting will take place inside our church's fellowship hall. In the past, events hosted at our local church have not had positive attendance results; but neither have events hosted at other venues. Therefore, since the focus is on the local community living in the west side of Jacksonville and following Adams' model, the local church building will be used as the main meeting location.

Each meeting will seek to have a familiar, regular, consistent, and predictable agenda. The first 30 minutes will be comprised of a check-in during which participants will be able to sit in a circle, become better acquainted with one another, and share their personal journey and reflections about being overweight and/or obese. Participants will be encouraged to share how they feel. The hope is that these conversations will create a positive, supportive atmosphere. There will be zero tolerance for bullying or shaming of any kind. I will facilitate the discussions. Confidentiality will be of extreme importance.

The next 30 minutes will consist of light exercises in the open air: warming up, walking, and cool-down stretching. The purpose of these group exercise sessions will primarily be exemplary. I hope to model to the participants showing the importance of engaging in some form of aerobic exercise and/or physical activity. These joint group

exercise sessions also will provide an opportunity to ask questions, bring clarity, and inspire motivation.

The final 30 minutes of the support group will be dedicated to a presentation related to a health topic. During the six weeks, group members will learn about: (a) exercise, (b) weight loss practices, (c) nutrition, (d) goals, habits, change, (e) degenerative diseases, and (f) emotional health. A different medical professional from Baptist Health Jacksonville will lead this portion of the meeting each week.

Rockport 1-Mile Walking Test and Target Heart Rate

The first support group session will meet at a public running track belonging to the City of Jacksonville at Cecil Field. Since the first lecture to be given is on exercise, participants will take part in a target heart rate (THR) assessment via the Rockport 1-Mile Walking Test, which is a 12-minute timed walking test. A THR assessment determines the optimal intensity of heart beats per minute for an individual to receive the maximum amount of aerobic benefit during their exercise routine. At the end of the 40-day period, a second walking test will be conducted, and the results of both tests will be compared to see what, if any physical fitness gains have been made.

40-Day Weight-Loss Health Challenges

On day one of 40-days, participants will receive a workbook containing the daily devotional readings, health challenges, and reflection questions. A daily record of the practices should be documented in the workbook. Workbooks are to be turned in every week during the support group meeting for documentation, at which time participants

will receive the following week's workbook. The health challenges are divided into two categories: practices engaged, and practices abstained.

Practices Engaged

Daily Devotional Readings

The purpose of the daily devotional readings is to heighten introspection and help participants make a decision for a positive action (Robinson, 2014, p. 167). Participants will be asked to read a Bible verse followed by a brief commentary (Appendix D). As stated earlier, this is the opportunity for participants to look to God as the active agent of change in their lives. The hope is that through these daily devotionals, the biblical passages will inspire hope for healing through the power of God.

Participants will have the opportunity of making a daily decision in the form of a prayer, and then encouraged to take action, journaling any thoughts or reflections. The daily health challenges (i.e., How much water did you drink? Did you eat any snacks, if so, how many? Did you exercise, if so, how long? Did you fast? How many meals did you eat today? Did you eat your serving of fruit and vegetables? etc.) will have a box next to them to be checked off once the challenge has been met.

Regular Exercise and Physical Activity

Exercise is an important part of healthy living. Seventh-day Adventists have a long history of promoting and encouraging physical activity (White, 1905, p. 127; 1923, p. 173). Some of the potential benefits of exercise are: weight loss, cardiovascular health, longevity, regulation of lipids and hypertension, lower rates of type 2 diabetes, improved self-esteem, increased energy levels, improved respiratory function, reduced risk of

stroke, reduced risk of osteoporosis, reduced risk of metabolic syndrome, reduced risk of colon cancer, reduced risk of breast cancer, decreased anxiety and depression, enhanced feelings of well-being, enhanced physical function, enhanced work performance, improved cognitive function, and even prevention of functional limitations, both physical and mental in older adults (Pescatello, 2014, pp. 9-11). Some research even connects the importance of exercise coupled with fasting as a means of improving neuroplasticity and enabling neurogenesis (Praag, Fleshner, Schwartz, & Mattson, 2014). Current recommendations for exercise and physical activity vary for different age groups. For those aged 3-5, the recommendation is to engage in general physical activity throughout the day. For ages 6-17 the recommendation is 60 minutes a day of physical activity. For adults ages 18-64 the recommendation is to have at least 150 minutes of moderately intense activity a week. For older adults ages 65 and above, the recommendations are the same as for adults ages 18-64, with the added incorporation of balance exercises (Health and Human Services, 2018b, p. 56).

Participants will be given a graduated schedule starting at 20 minutes a day twice a week for the first week and gradually increasing to 30 minutes a day four times a week for the sixth week. The choice of exercise activity will be left up to the participant to decide according to their own personalized exercise plan, but they will be encouraged to engage in a combination of aerobic and strength training exercises such as walking, running (if able), jogging, swimming, and cycling, among other activities (Pescatello, 2014, pp. 87-108). The important point is to make an effort, find a sustainable activity, and be consistent.

Participants will also be provided with a Fitbit heart rate monitor to assist in measuring their THR. Reporting the daily exercise time in their workbook is important for measuring progress (Pescatello, 2014).

Nutrition

The final practice engaged in during the 40-day weight loss challenge has to do with nutrition. While the main information for nutrition will come from the scheduled lecture in week three, and a few nutritional principles will be covered in the daily readings, participants will be evaluated in their consumption of the recommended daily servings of fruit and vegetables based on the My Plate model (downloading the My Plate App may also be of benefit to the participants). Another way to look at the daily recommended serving of fruit and vegetables is that half of the plate should be whole fruit and half be fresh vegetables (including salad) (*2015–2020 dietary guidelines for Americans*, 2015, p. 69).

The goal is to keep the nutrition aspect as simple as possible. While there is a whole host of changes that can be made to the diet, a good first step is to begin incorporating more fruits and vegetables. Apart from that, participants will be free to eat as they wish. In this one respect, this program is different to traditional Adventist lifestyle programs in that participants will not be asked to solely eat a vegetarian diet.

Participants will also be asked to lower their caloric intake by eating less (quantity and frequency). They will be assisted in this task by keeping a record of their daily caloric intake for one week via the Fitbit app. Afterwards participants will evaluate their total caloric consumption, compare it to the recommended quantity, and be encouraged to bring them into alignment ("Mayo clinic calorie calculator," 2021; USDA, 2021b).

Finally, participants will be asked to drink 64 ounces of water every day (*Dietary reference intakes for water, potassium, sodium, chloride, and sulfate.*, 2005, pp. 88, 145).[1] To help with this water intake, participants will be given a 32 oz. Nalgene water bottle. As with the fruit and vegetables, participants will also be asked to record their water intake by putting a check mark next to the box in the workbook and via Fitbit app.

Practices Abstained

Caloric Restriction

Participants will be asked to abstain from unhealthy practices during the 40-day weight loss program, including alcohol and tobacco products during the entirety of the 40-day period (Stautz, Zupan, Field, & Marteau, 2018). It is important to remember that all of these recommendations are voluntary. It will be left up to the individual participant to determine to what degree they adhere to the recommendations. There will be no "penalty" if they "cheat," but participants will be asked to keep record of their activities.

Participants will also be asked to give up one food product of their choice (sugars, meat, fried foods, etc.) for the entirety of the 40 days. For example, participants could decide to not eat sweets, dessert, fried foods, potato chips, meat in general, or red/processed meats, among other items. The strictness with which participants implement this aspect will be left up to them. Guidance and information will be given. They will be asked to record what one item they have given up in their workbook, and they will daily record whether or not they abstained from that one food item. This will be

[1]The average individual needs at least 1 ml. fluid for every calorie burned, which is approximately eight 8-ounce glasses per day for a 2,000-kcal diet (Malik, Popkin, Bray, Després, & Hu, 2010, p. 1361).

an exercise in self-control and self-denial which can be a significant barrier for adopting healthy eating habits (Nolan et al., 2016).

Sugar Sweetened Beverages

A third item that participants will be asked to abstain from will be any beverage that is not water. As stated earlier, participants will be asked to drink 64 ounces of water every day. The list of beverages to be abstained from includes, but is not limited to: alcohol, sugary drinks, juice, soft drinks, smoothies, shakes, coffee, sweet/unsweetened tea (herbal teas would be permissible), and sports drinks (coconut water would be permissible). The project will also discourage the use of water flavor enhancers. Plain, low-fat milk would be fine to consume, as would other milk alternatives.

This exercise is an attempt to cut down on liquid calories consumed, as studies indicate that calories from sugar sweetened beverages (SSB) can account for as much as 15% of total calories consumed (Malik, Schulze, & Hu, 2006). Those who consume SSB increase their caloric intake by 200 to 500 kcal a day more than those who do not consume SSB (Ruff, Akhund, Adjoian, & Kansagra, 2014).

Intermittent Fasting and Two Meals a Day

Finally, the last challenge is to encourage the participants to engage in a voluntary intermittent fasting (IF) consisting of time-restricted eating. There are two aspects to this form of intermittent fasting. The first aspect is to not eat for a 15-hour window, that is, abstaining from eating between 6:00 p.m.in the evening until approximately 9:00 a.m. the following morning. Within the 9-hour window that is available to eat (9:00 a.m.to 6:00 p.m.) the individual can eat as many meals as they would like (within reason).

The second aspect to the fast is that participants can choose, in addition to fasting for the 15-hour window, to eat only two meals a day within the 9-hour window. Both aspects are voluntary. For participants who decide to engage in this challenge, they will be asked to keep a daily record in their workbook of what type of fasting they decided to engage in, how well they adhered to it, and how many meals they ate. Participating in intermittent fasting and eating only two meals a day is completely voluntary and choosing not to participate in the fasting portion of the 40-day challenges will not affect an individuals' eligibility for acceptance into the project. Participants are free to start this challenge at any time, quit at any time, or not participate in it at all.

The following section examines the evidence for adopting intermittent fasting as a technique to help with obesity and overweight.

Definition and Explanation of Fasting

Fasting is defined as the complete or partial abstention of food or drink and is clinically classified as a form of caloric restriction (CR), that is, the method of reducing the intake or amount of calories consumed (Mattson, 2005). As presented in the literature review, obesity and overweight patterns can be onset by an imbalance of energy homeostasis, that is, when caloric intake exceeds caloric expenditure. Therefore, in order to lose weight, caloric intake must decrease or be restricted, and caloric expenditure must increase.

It is my personal opinion that fasting is a difficult endeavor for most people (Moro et al., 2016). The more stringent the fasting is, the higher the attrition rate (Trepanowski et al., 2017). While ideally this 40-day weight loss program should challenge and stretch the participants, it is not the goal to make the experience

unnecessarily difficult, unpleasant, discouraging, unrealistic, and/or unattainable. Therefore, this program will employ a soft form of fasting, namely, time-restricted eating.

While research is limited with regards to time-restricted eating (S. T. Smith, LeSarge, & Lemon, 2017), recent studies indicate that some of the potential benefits of caloric restriction diets (i.e., fasting) include weight loss, reduction in body fat percentage and BMI, lower total cholesterol, LDL, LDL particle size and triglycerides, higher HDL count, protection against metabolic syndrome, and improvement in cardiometabolic health (Mattson, Longo, & Harvie, 2017; McAllister, Pigg, Renteria, & Waldman, 2020; Tinsley & La Bounty, 2015; Wilkinson et al., 2020).

Other studies (some drawing conclusions from animal models) seem to indicate that intermittent fasting and periodic fasting (PF) may have a beneficial impact on lowering blood pressure, reducing blood glucose and insulin levels, improving glucose tolerance, increasing insulin sensitivity, improving longevity, slowing down the aging process of the mind, improving cognitive function in old age, and protecting against Alzheimer's and Parkinson's disease (Halagappa et al., 2007; Mattson, 2012).

Regarding the evolutionary science behind CR, one hypothesis postulates that when the human body undergoes some form of metabolic and cellular stress (via exercise or energy restriction), it enhances synaptic plasticity, promotes neurogenesis, biogenesis, and improves cognition. The idea is that under these adaptive stresses, the human body develops a greater level of resiliency (Mattson, 2012). Others propose that there is a connection between glucose reduction, insulin sensitivity and longevity (Velingkaar et al., 2020).

This information is of interest particularly to Seventh-day Adventists because White writes about the negative effects of overeating:

> When too much food is used, the entire system is burdened. Life and vitality, instead of being increased, are decreased....Indulging in eating too frequently, and in too large quantities, overtaxes the digestive organs, and produces a feverish state of the system. The blood becomes impure, and then diseases of various kinds occur. (White, 1938, pp. 131, 189)

In another place she writes, "Regularity in eating is of vital importance. There should be a specified time for each meal. At this time, let everyone eat what the system requires, and then take nothing more until the next meal" (White, 1905, p. 303). She also wrote about the benefits of fasting and eating only two meals a day.

> In many cases of sickness, the very best remedy is for the patient to fast for a meal or two....A fruit diet for a few days has often brought great relief....Many times, a short period of entire abstinence from food, followed by simple, moderate eating, has led to recovery through nature's own recuperative effort....There are some who would be benefited more by abstinence from food for a day or two every week than by any amount of treatment or medical advice. To fast one day a week would be of incalculable benefit to them....In most cases, two meals a day are preferable to three. (White, 1938, pp. 176, 189).

In her writings, healthy eating has both moral and physical implications, and while current scientific information was not available to her, her counsels on eating habits still appear to be relevant.

Phase Three: Final Assessments

Once the 40-days are over, the program then moves into phase three which will be dedicated to evaluation. A second Rockport 1 Mile Walking Test will be administered to measure any kind of progress in fitness and target heart rate. Participants will also go through a second biometric screening to see what improvements there are in their lipids, weight, and BMI.

Exercise goals and plans will be reviewed. Workbooks will be returned to participants after the information has been recorded, a project evaluation form will be given to the participants, and next steps will be discussed, along with community resources available to participants. Though outside of Andrews University's IRB time authorization, participants will be followed up with at the one, three, six, and 12-month mark.

Project Goals

Realizing that one's health and lifestyle is the product of a lifetime, and that each individual is unique and will respond to various regimes differently, participants should not expect to see results overnight. I do not want to set participants up for failure, but neither do I want them to have unrealistic expectations.

There are no shortcuts, magic formulas, panaceas, or quick fixes for overweight or obesity; rather the journey towards health takes time, consistency, and perseverance. This does not mean the journey needs to be overtly difficult and complicated; there are easier routes that one can go, and it is important to keep things simple, but results will not be obtained naturally or automatically nor without consistent, persevering effort. White writes,

> It will take time for the taste to recover from the abuses which it has received, and to gain its natural tone. But perseverance in a self-denying course of eating and drinking will soon make plain, wholesome food palatable....An abstemious diet for a month or two would convince many sufferers that the path of self-denial is the path to health. (White, 1923, p. 148; 1938, p. 189)

Therefore, the goals for this project are split into two categories: objective and subjective.

Objective Goals

The project will have tangible goals in order to measure its effectiveness. All data will be documented in an excel spreadsheet and evaluated based on numbers and percentages. Through these measurements I hope to determine which individual components were the most effective in leading to weight loss. How effective was the time frame of 40 days? How effective were the lectures, weekly support groups, daily readings, etc.

Any reduction in weight, BMI, lipid profile (Cholesterol, Triglycerides, Glucose), blood pressure will be seen as a success. The program is also designed to burn and/or reduce the amount of adipose or fatty tissue (Banach, Glibowski, & Skorek, 2019).

Another objective measurement will be the participants' heart rate reserve (HRR) and resting heart rate (HR_{rest}), and like the biometric reading; a lower number at the end of the program will be viewed as a success. Distance covered in the Rockport 1 Mile Walking Test will be another means of objective evaluation. The longer they are able to walk within the 12 minutes, the better.

How well participants fared on the various 40-day challenges will also be evaluated. They will be asked how many days they exercised, did the readings, drank at least 64 ounces of water, abstained from that one item of their choosing, followed the time-restricted eating, ate two meals a day, and ate their daily servings of fruit and vegetables, along with other questions. A final measurement will evaluate whether participants have moved into a different stage of change.

Subjective Goals

The subjective goals are those that are not easily measurable with numbers. Participants will regularly be asked how they feel. I want participants to feel better as a result of engaging in this program. I also look forward to learning what other peripheral benefits were realized as a result of engaging in healthy practices.

The building of new habits is central for engaging in the various 40-days health challenge, and I hope that this project will help the participants adopt, as part of their life moving forward, at least one new healthy habit (Duhigg, 2012, p. 275).

It will be interesting to see what effects the TRE had on participants. Some articles suggest that after six or 12 weeks, the positive impact of TRE is minimized, and at that point, it simply becomes a matter of maintaining the positive effects. It also seems to indicate that the older one is, the less effect any one treatment has. In other words, it becomes harder for the body to adapt after a certain age; therefore, it behooves people to develop healthy habits during their youth (Gabel et al., 2018).

The final project evaluation will also look at other factors such as an increase of participants' health knowledge. Hopefully the readings, support groups, and lectures will encourage positive thinking, give courage and strength through group exercises, and will help move participants in a direction of healthy habits, of a positive frame of mind, hope, and wellness as they seek healthier lives. How much was their thinking challenged and stretched during the 40 days? The goal is to give participants a taste of what is possible and give them options at life so they can know about the risks of obesity and how to prevent them.

It will also be important for participants to take advantage of the free community health resources provided by Baptist Health Jacksonville. Staying in touch with their health coaches will be key in continuing to practice healthy habits (Perri et al., 2008).

The evangelistic impact of the program is also a subjective goal. How will we know whether a participant has allowed God to be the agent of change in their life? Can the daily devotional readings count as Bible studies? Can the support group meetings count as pastoral visitations? What about baptisms? What about church attendance? What about relationships built with church members during the program? What about prayer with and for the participants? At this point, it is a bit unclear in my mind how to evaluate the evangelistic success of this program.

Facilitator Goals

Included in the final project evaluation form are questions evaluating the facilitator. I want to be able to connect with at least five participants during the program and check-in with them on a daily basis, even exercise with them if the schedule so allows. I want to see how those receiving extra attention fare versus those who do not. It will also be interesting to see how those receiving a higher level of accountability respond when compared to those who do not. My theory at this point is that those receiving extra coaching will fare better and have a lower attrition rate. The big question is, How much does adding a personal coach change the dynamics of the process?

Finally, it is very important to me that no participant injures themselves. Safety is of paramount importance. Injury is the opposite of what we want to accomplish. While I want to challenge individuals, I do not want to push them too far. This is where I feel that

understanding a participant's motivational factors, efficacy, and positive reinforcement will be of benefit in keeping them safe.

Summary and Conclusion

In summary, I seek to implement a 40-day (approximately six-weeks) faith-based weight loss program based on both accurate scientific information and biblical principles of behavior change. The program will make use of behavioral, psychological, and spiritual components.

The program will be advertised to the community as a faith-based weight loss program. It will make use of daily devotional readings through which participants will come to realize that they cannot change themselves but that the power to change can only come from God. They will be encouraged to connect with God through the written prayers and daily decisions. They will also be given practical steps about how to change their behavior.

The program will also be based on sound scientific information. Participants will undergo a biometric screening before and after. They will meet weekly for support, the building of meaningful relationships, group exercise, and health lectures. The weekly support group meetings will last for a total of 90 minutes. A local community medical professional will give the health lectures. The instruction on nutrition will follow the guidelines of the United States Department of Agriculture (USDA) MyPlate recommendations (myplate.gov). In general, participants will be encouraged to limit their intake of fats, sugars, red/processed meats, and calorically dense foods, while promoting the generous consumption of fruits, nuts, grains, and vegetables. Participants will also be

encouraged to restrict their caloric intake through intermittent fasting and eating two meals a day.

Exercise will be assisted using a Fitbit heart rate monitor and participants will be encouraged to exercise within their target heart rate zone. Aspects of emotional health, body image, and self-esteem will also be explored. After the program is finished, long-term follow up will take place at the one, three, six, and 12-month intervals (Bray, Frühbeck, Ryan, & Wilding, 2016). Data will be gathered, documented, and analyzed in order to determine which of the components were most effective in leading to weight loss, as well as seeking to evaluate the program's evangelistic potential.

The combination of all these components put together makes this project a unique contribution to the comprehensive health ministry of the Seventh-day Adventist Church.

CHAPTER 5

IMPLEMENTATION OF THE WEIGHT LOSS PROGRAM

Introduction

The SARS-CoV-2, commonly referred to as Coronavirus or COVID-19, has been a disruptive element in almost every aspect of human life, including academic endeavors like this project. What was supposed to be a 40-day faith-based weight loss program implemented in 2020 in partnership with Baptist Health Jacksonville, was delayed for over a year and had to be significantly modified. And yet I still saw God's hand leading and working everything out. It reminded me of the passage in Romans 8:28: "And we know that all things work together for good to those who love God, to those who are called according to His purpose."

Therefore, despite the challenges, from May 23 to July 18, 2021, I was able to implement a 40-day faith-based weight loss program for the residents of the west side of the city of Jacksonville, Florida. This project was an attempt at making a unique contribution to the long history of comprehensive health ministry models as used by the Seventh-day Adventist Church by providing a program specifically targeted and promoted for weight loss.

My faith-based weight loss program would be characterized by being:

1. Incorporating various elements of physical fitness, nutrition, social, and behavioral change modules.

2. Problem specific, that is focused specifically on overweight and obesity.
3. Acknowledge that God is the active agent of behavior change in the daily life, and that people cannot change their behavior without God's special intervention.
4. Encourage participants to develop a healing relationship with God through prayer and the promises of the Bible, and provide simple, specific information on how Jesus helps people change behavior.
5. Employ scientifically sound information regarding the specific problem.
6. Thoroughly and honestly collect and document hard data and results.
7. Provide long term follow-up of participants.

This chapter is divided into five sections. The first section looks at the various obstacles faced in seeking to implement the project and how they were overcome. The second section focuses on the first day of the project. The third section is an overview of the entire project. The fourth section considers the results achieved by the participants of the project and, finally, the fifth section analyzes the feedback received by the participants via the evaluation form.

COVID-19 and Obstacles for Implementation

Since 2016, a relationship had been cultivated with Baptist Health, specifically with their department for community health engagement and social responsibility. Over the years, several in-person conversations took place, as well as digital communication about how we could partner together in implementing the weight-loss program. The idea was that I would serve as the facilitator, and they would provide the necessary expertise in medical personnel. Unfortunately, due to COVID, it came to a halt in March 2020.

There was much uncertainty during the month of March 2020 regarding what the future would hold, and I was notified by Baptist Health Jacksonville that all community outreach endeavors had been put on an indefinite hold. As the year progressed, I kept in touch with them via phone and email. A zoom meeting was held in September of 2020, and again there was uncertainty on their part as far as how to move forward and when to begin reengaging the community. Communication ceased shortly thereafter.

At that point I decided to reach out to other local area hospitals, the first of which was UF Health Jacksonville, largely in part because of the extensive research and work conducted in the city of Jacksonville related to weight loss by Dr. Carolyn Tucker, former professor at the University of Florida's Department of Community Health and Family Medicine, and currently the chair of Health Disparities Research. Unfortunately however, though UF Health Jacksonville has led out in previous weight management courses, most recently Health-Smart (Williams, 2018), the various individuals I spoke to there were unsure of who to contact. I called various hospital departments, left messages, all to no avail.

In December 2020 I reached out to Ascension St. Vincent's hospital, to which I was pleasantly surprised by how fast they returned my phone call. I met in-person with the director of their weight loss services department. We had a very productive time discussing a layout of the project. The director seemed very enthusiastic about the prospect of working together; therefore, a follow-up meeting was discussed, but unfortunately, that is where it ended. I sent multiple emails, left multiple voicemails and text messages, all of which were never returned.

A final attempt to partner with a local area hospital was made with Mayo Clinic. However, their community outreach was focused in a different area of community health, and a weight loss program was not something they felt they could spare resources at that time. Therefore, the problem of not having qualified medical personnel to assist in the various aspects of the 40-day weight loss program and bring credibility to the process remained a significant obstacle to its implementation.

Harnessing Local Church Talent

Thankfully however, after having a few conversations with church members, I was able to gain some clarity about how to move forward and find the needed medical professionals. I spoke with one of the leaders at our church plant who holds an MSN (Masters of Science in nursing) and APRN (advanced practice registered nurse) and, as of writing this chapter, is currently the clinical quality nurse leader for the medical intensive care unit at UF Health Jacksonville. She told me that in the past, her department would regularly hold biometric screenings as a form of community outreach.

She said that she could organize nurses from her floor to volunteer and run the various stations for the biometric screening. She could also have a medical doctor present to speak with the participants about their screening results. She even garnered the support of a nutritionist to give one of the lectures! After thinking through some of the logistics involved, a date for the biometric screening was set, a lipid panel machine was purchased (Diagnostics, 2021), as were other necessary medical supplies.

A certified fitness coach was hired to give the lectures on fitness, exercising for weight-loss, habit change, and to lead out in group exercises (Banks, 2021). While visiting a shut-in member from my church during the month of March of 2021, I became

acquainted with a family member of theirs, Elvin Adams MD, MPH, and his services were secured to give the lectures on best practices for weight loss, avoiding weight loss fads, understanding macro nutrients (carbohydrates, fats, and proteins), the comorbidities of obesity and overweight as well as the pros and cons of medical interventions in weight loss. The final medical professional needed, a behavioral psychologist, was realized through a co-worker relationship of one of my church members.

In the span of four months, from February to May of 2021, the services of all the necessary medical personnel were secured, the project dates mapped out, and all that was missing was the invitation to the community via advertising. As mentioned previously, I felt God's providence lining everything up perfectly. What I was unable to accomplish through relationships, conversations, and networking with Baptist Health Jacksonville for over four years, God was able to do within four months.

Advertising the Event

The challenges however were not over. Yet, what at the time seemed like an insurmountable, overwhelming mountain, did not seem as terrifying once I was on the other side; however, getting there was easier said than done. So while I was working to enlist the services of the medical personnel, I was also working with a print shop to design the advertising flyer for the event.

Based on a colleague's referral, I decided to employ a different graphic designer from the one I normally worked with. While I think they did a fantastic job on the design, they unfortunately overlooked the timing of the mailing, and when the time came for the postcards to be mailed, they were unable to get them out on time. I paid them for the design work, but I was left to figure out how to mail out the flyers on time.

Thankfully, when I contacted the print shop that I normally worked with, they assured me that they indeed were able to print the postcards and mail them out exactly a week and a half before the start date of the program! I am thankful because they did not charge extra, even though it was a rush job. A lesson learned was to always go with those one has worked with in the past, and who have shown themselves to be trustworthy and reliable.

I am also thankful to God for making this happen, because without advertising, how would community members know there was a faith-based weight loss program available to them? The invitations mailed out were essential in order to secure community involvement. On a rainy day my faith failed when the graphic designer called and said that they were unable to mail out the flyers on time. But God came through once again. I can honestly say that this entire DMin project and program has been an exercise in faith, seeing God come through at the most critical moments. The DMin program, more than any prior degreed program, has (a) strengthened my faith in the reliability and trustworthiness of God's word; (b) given me a greater assurance of God's personal love, care, and provision for me; (c) allowed me to draw near to members of my community, impacting them in a very tangible way; and (d) opened the door to spiritually minister to them. And for all this, I am grateful.

As stated in chapter 4, my church has never had much success in engaging the community through advertising; therefore, I honestly did not have high hopes this time either, but what other way were we to get the word out, especially with COVID-19 restrictions? We targeted 10,000 homes within a five-mile radius of the church. The cost for printing and mailing was $3,212. To do a multiple mailing as originally planned

would have been financially prohibitive. The homes and neighborhoods that we targeted were ones that we had not targeted before. I was very overjoyed at the results! A total of 29 individuals registered for the event via Eventbrite, which is one registrant less than the cap of 30 that I had initially established! Even so, there were several more community members who called inquiring about the project, making the interaction I had during that week with community members quite refreshing.

While I thank God for the response, yet it also leads me to reflect and ask myself, "Why was this attempt different from previous advertising campaigns?" Does it mean that God was not involved in the previous mailings? Or, perhaps these mailings received a more favorable response because there was a greater need felt by many coming out of the 2020 quarantine desperate to lose weight? It could be that in our advertising campaigns of the past quantity was chosen over quality without adequately considering the specific community needs, context, and demographics involved.

Or maybe it was something else? It is moments like these that makes me feel a need to study marketing and advertising in order to better understand these mysteries. All obstacles aside, the program was finally ready to begin.

Program Overview

Biometric Screening

On Sunday, May 23, 2021 at 2:00 p.m. the first participants were welcomed to the initial biometric screening. We requested that participants fast for at least 8 hours before arrival. Of the 29 participants who registered, 23 showed up. Of those 23, 13 were from the community and 10 from the church. Various stations were setup to help organize the processing of each participant. When they first entered the building, there was a check-in

desk where their names were marked off and a folder containing the various consent forms and health assessments were given to them.

From there they went to station two to have their blood pressure and heart rate taken. Station three measured their height and weight and then calculated their BMI. Station four was the lipid testing station where a small blood sample would be taken.

The first three stations went by fairly quickly; it was at the lipid panel station where we began to have a backlog. To keep participants occupied while waiting for their lipid panel test, I had them fill out the various consent forms and health assessments. I would explain the various consent forms to them, ask them if they had any questions, and give a brief overview and orientation of the goals and expectations of the program. Once they had their lipid panel results, the volunteer physician would sit down with them and go over their results. Refreshments were provided for the participants after they had received their lipid panel results.

While for the most part, I believe everything worked well, I do feel that the flow could have been smoother. Perhaps if we had a second lipid panel machine that would have improved the flow greatly; however, since each machine costs $1,250, it is necessary to ask whether spending the extra $1,250 is worth the money or is it acceptable to have people wait? Knowing the number of expected people registered to attend the biometric screening would also have been helpful in making this determination.

Health Assessment Results

Based on the criteria of acceptance into the program, that is, having a BMI greater than 25, and completion, review, and analysis of participant's health assessments, I would

say that this process helped tremendously in selecting only those who were in the preferred stages of change (i.e., preparation, action, maintenance) in the program.

The process of attrition was quite natural. There were those who received the flyer but were not interested. There were those who were interested but did not register. There were those who called seeking more information but also did not register. There were those who registered but did not show up for the biometric screening. There were those who came to the biometric screening but decided not to join the program. There were a few who began the program but did not complete it. And finally, there were those who registered, showed up, and saw the program all the way through!

The process of attrition through use of the health assessment forms ensured that morale, motivation, commitment, and energy within the group remained high. In speaking with various individuals, the collective wisdom seems to indicate that when individuals are allowed to join a program indiscriminately, without some type of screening to indicate their level of motivation or change, those who are less committed and not really interested, tend to exert a negative, deflating, and depressing element in the group. In fact, at the end of the program, I myself felt it was dragging a bit, but many of the participants felt it had gone by very quickly and even asked for the program to continue, which was personally, very encouraging and energizing! In other words, thanks to the health assessments, the right people had joined the program!

During the following two weeks after the biometric screening, I reviewed each participant's health assessment and spoke with participants over the phone about their results. Only one of the participants was diabetic and therefore this two-week period

afforded them an opportunity to have their endocrinologist sign the intermittent fasting consent form. Unfortunately, this one participant did not do well with the program.

Week One

Two weeks after the initial biometric screening, the program officially started on Sunday, June 6, 2021. The weekly support group meetings were held every Sunday from 5:00 p.m.to 6:30 p.m. The meetings consisted of a group exercise, discussion time, and a health lecture. A total of six meetings were scheduled, but since the fourth of July fell on one of those Sundays, the group decided not to have a meeting that day, pushing the ending date back a week later to July 18. There was also a calibration issue with the lipid-testing machine on that final Sunday; therefore participants had to return a week later in order to get those results. Participants remained cooperative and understanding.

The first support group meeting was convened outdoors at the running track at Cecil field. Nineteen of the 23 participants showed up. Two dropped from the program, one was traveling, and the fourth participant was not able to make it due to a vehicular accident earlier in the week. Many of the participants had a difficult time finding the location of the running track and many were late which delayed the start time a bit. Tardiness among participants was a regular occurrence throughout the program. This affected the amount of time we had for group discussion, and many of the participants later commented that they would have liked to have more time to talk about their journey, struggles, victories, and to build meaningful relationships with one another.

During this first meeting, the participants completed the Rockport 1 Mile walking test, which measured the distance covered walking (in miles) during a 12-minute span along with their heart rate. Unfortunately, many participants were unable to find their

pulse; therefore, though we did the test again at the end of the program; the numbers from the first test were unreliable and could not be compared with the final results.

In hindsight, what should have been done was to give the Fitbits to the participants at least one week before the walking test. The reason I did not do this was because I was expecting more attrition and did not want to lose the Fitbits prematurely. I now believe that accuracy is more important than saving money. Each Fitbit cost $69. I ordered 30 of them for a total of $2,117.40.

The fitness coach also came out and led the group exercises as well as gave a lecture on exercising for weight loss. At the end of this meeting, 32 oz. Nalgene water bottles were distributed, as were the Fitbits, and week one of the daily devotional readings. Everyone left energetic and optimistic.

Weeks Two Through Six

From the 21 participants we had after the first meeting, we lost six more over the following weeks. Two were due to summer travel plans. One became discouraged from falling behind around week three. This particular participant also felt overwhelmed by the required documentation. A fourth participant contracted COVID-19 as did her entire family and shortly thereafter her grandmother passed away because of it. The final two participants were unable to attend due to their Sunday work schedule. After week three, attendance had stabilized, therefore, by the time the program ended, there were a total of 15 participants who completed the program. Counting the 21 participants who were in attendance after the first day of the program, this represents an attrition rate of 29% by the end of the program.

Daily Devotional Reading and Health Challenges

Throughout the week I checked in with the participants. Some preferred text messaging, others preferred phone calls. I would exercise with some of them during the week. All the participants were diligent in completing their daily readings and turning in their weekly workbooks. The daily reading was the philosophical framework that grounded the weight loss effort within a faith-based context. In essence, what I sought to establish through the reading was for participants to know that the 40-day program was more than just about losing weight. I wanted them to be intentional about connecting with their Maker, to connect with the One Who wants them to experience an abundant life filled with good health (Ps 139:14; John 10:10; 3 John 2).

In the daily devotional readings, I sought to select Bible verses that spoke specifically to the problems related to overweight and obesity, and through the scriptures encourage them and challenge them to look to God for help in changing their behavior. Every reading ended with a daily decision in the form of a prayer, and then a couple of discussion questions were listed for purposes of personal reflection and sharing with other group members.

In answering the question, "Which of the daily devotionals did you find most meaningful?" here are a few quotes from what the participants wrote in the project evaluation form given to them at the end of the program.

> "I enjoyed them all and knowing that the Bible contains so much information to build us up from guilt and shame, the way the scriptures were broken down was so encouraging. We are all precious in God's sight. We are just fearfully and wonderfully made."

> "They made you think of health aspect connection [*sic*] and God that I didn't often realize."

"Clean and unclean meats and growth as process."

"All power of habits references."

"About habits. And how our brain adapts to change."

The daily health challenges consisted in (a) tracking the duration of their exercise and time spent within their target heart rate zone; (b) counting their calories via the Fitbit app (first week only); (c) abstaining from one item of choice for 40 days, along with abstaining from alcohol, tobacco, and any liquid that was not water (with a few minor exceptions); (d) keeping track of their daily water intake (64 oz. a day); (e) making sure they ate their daily servings of fruit and vegetables, and (f) counting the number of meals and snacks they ate each day. The intent of the daily health challenges was to encourage participants to lower their caloric intake and increase their caloric output.

Figure 1 shows the average engagement of participants in each health challenge group. The daily health challenges that had the most participation (greater than 50%) were the exercise components, abstention, IT fasting, and reading the daily devotionals. The components that had the least participation were (a) drinking water, (b) eating two meals a day, and (c) eating daily servings of fruit and vegetables. Based on these percentages, I am now wondering whether it is easier for people to adopt new behaviors than it is to modify existing habits of eating and drinking.

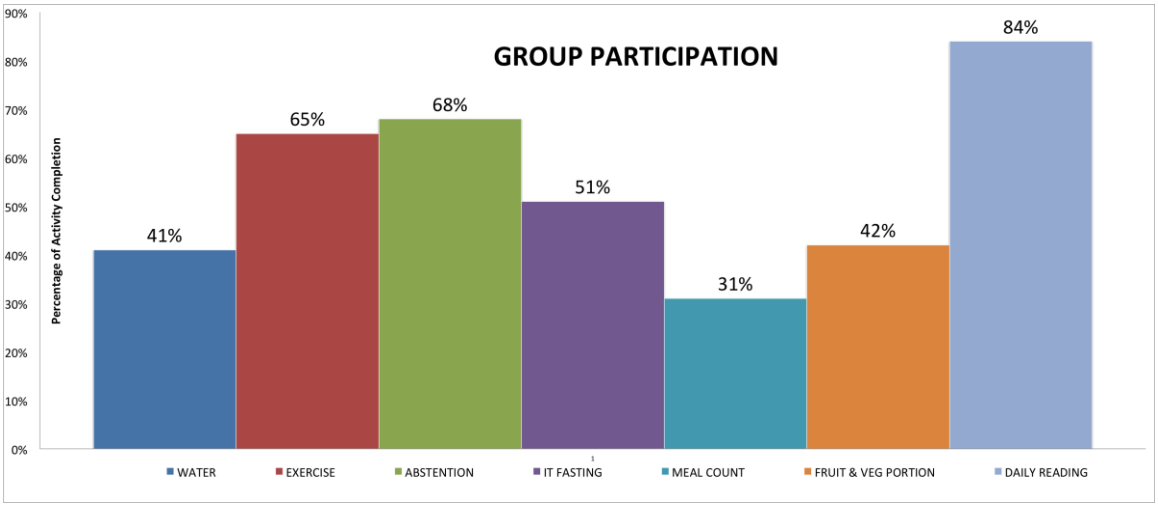

Figure 1. Average group participation of daily challenges.

Attendance

Along with tardiness, inconsistent attendance (Figure 2) was also a factor among participants and of the 15 participants who finished the program, only three attended all six meetings. Four attended five meetings, six attended four meetings, and the final two attended only half of the meetings.

I believe that the inconsistent attendance also hindered the building of meaningful relationships among group members because it is hard to build connections if the person is present inconsistently. However, instead of viewing the data negatively, it could be viewed in a more positive light. That is 13 of 15 participants attended more than half of the support group meetings! That is an attendance rate of 87%. Nearly half or 47% of the participants attended all or only missed one meeting.

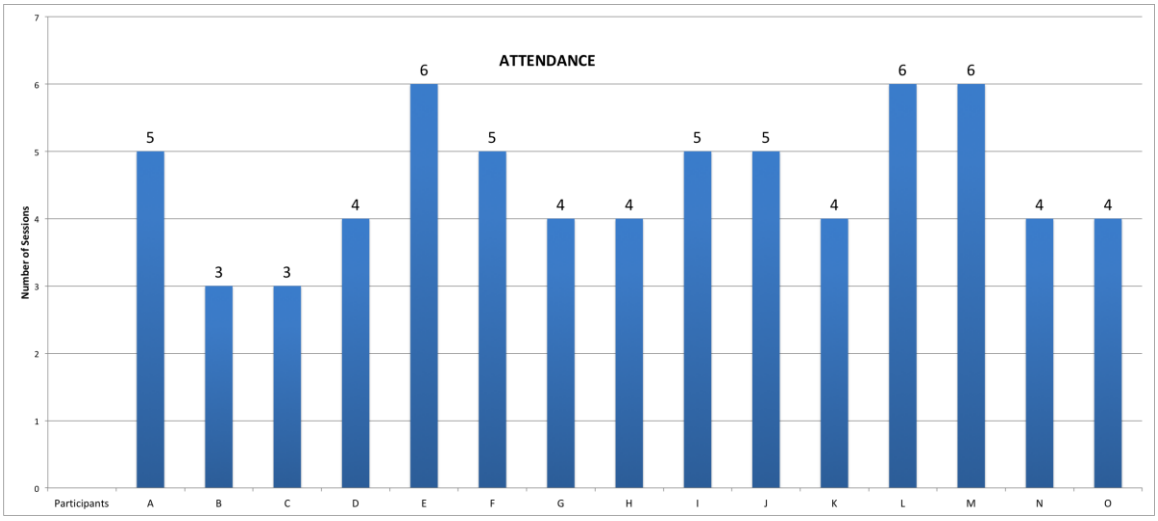

Figure 2. Attendance.

Perhaps a more modest and realistic way to look at the attendance data is that from the 29 participants who registered, only 15 completed the program. That is a 48% attrition rate. If attendance was counted based on those who showed up on the day of the biometric screening, which was 23, then the program's attrition rate was 35%. If counting the attrition rate based on those who were attending after the first day of the program, which was 21, then based on the 15 who completed the program, the attrition rate was 29%. While I know many of the reasons why some of the participants dropped from the program, there were a few who I never had the opportunity to follow up with, and I felt I should have had some type of survey for them to fill out about the reasons why they decided not to continue the program.

Without getting into the details of each week's meeting, I felt that every meeting was productive. According to the program evaluation form, not every participant benefited equally from each meeting, but all participants benefited somewhat from them.

Participants were positive, optimistic, energetic, respectful, attentive, and encouraging to one another. It was a really great group to work with!

Weight Loss Results

Objective Measurements: Weight, BMI, & Lipids

There were measurable improvements across all lines. Every participant did lose weight, some more than others (see Figure 3; Participant F was not available for measurements after the end, and Participant K was diabetic). Participants were reminded that healthy and successful weight loss consisted of losing about 3-5% of their present weight, or roughly one to two pounds per week, and the majority fell within that framework (NICE, 2014, p. 13). Long term weight loss should be targeted around 10% of present body weight or around 4.6 kg. (Kopelman, Caterson, & Dietz, 2010, pp. 267-268).

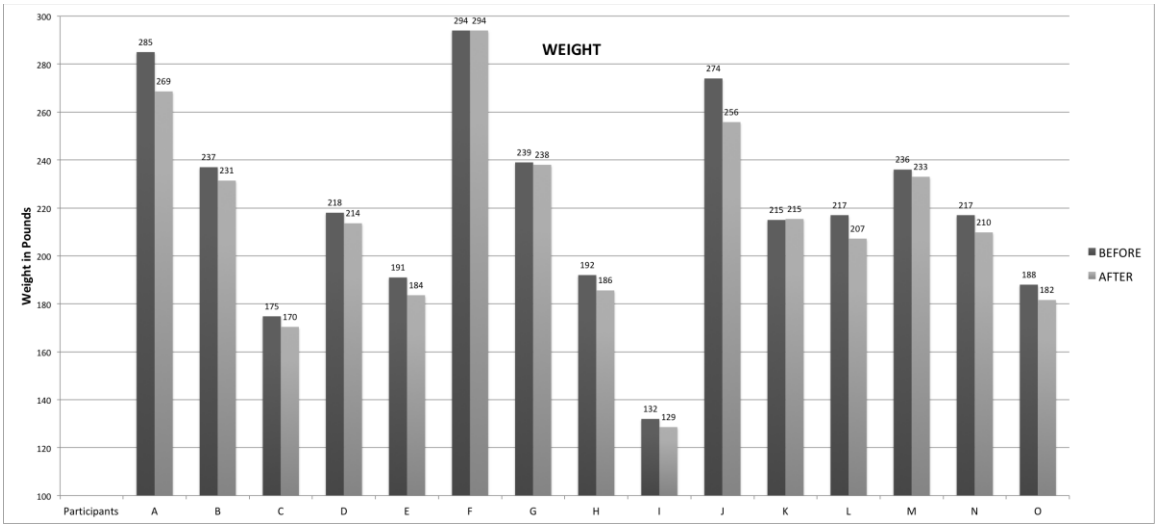

Figure 3. Weight before and after.

Participants lost a total of 94 lbs. throughout the six weeks, which averages out to be 6 lbs. per participant or 3% of present body weight. It is difficult to compare these results with other weight loss programs, but perhaps for perspective, Tsai and Wadden (2005) analyzed results from commercial weight loss programs and found that over a two year period, participants on average lose between 1.5% and 3.2% of present body weight. Their conclusion was that "evidence to support the use of the major commercial and self-help weight loss programs is suboptimal. Commercial weight loss programs are associated with high costs, high attrition rates, and a high probability of regaining 50% or more weight lost after one to two years" (p. 56).

In my program, the largest amount of weight lost was by participant J at 18 lbs., which represents a loss of 9.3% of present body weight. The least amount of weight lost was by participant G who lost 1 lb., which represents 0.99% of present body weight (since the program ended G has reported a loss of 10 lbs.).

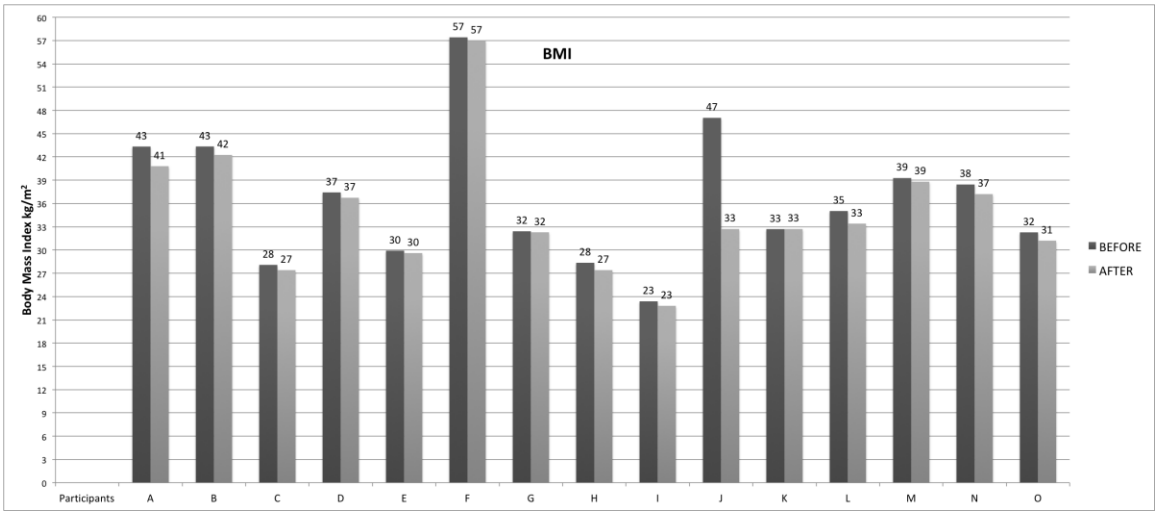

Figure 4. Body Mass Index (BMI) before and after.

Figure 4 shows the difference in body mass index (BMI) among participants. On average, participants decreased their BMI by 4%. The largest drop was J with a 30% decrease, and the smallest improvement coming from participant G with a 0.4% decrease.

There were other measurable improvements regarding lipid health (Figure 5). All baseline cholesterol levels of participants were within the normal range, that is, less than 200 mg/dl (Virani et al., 2021, p. e275). Participant M had the highest drop from 198 to 118. Participants D, H, J, and N were on cholesterol medication, and with the exception of participant H, all participants saw a significant drop in their lipid levels. On average their total cholesterol dropped 15 points or 10%. Even though participant H's total cholesterol increased, it is still within the normal range.

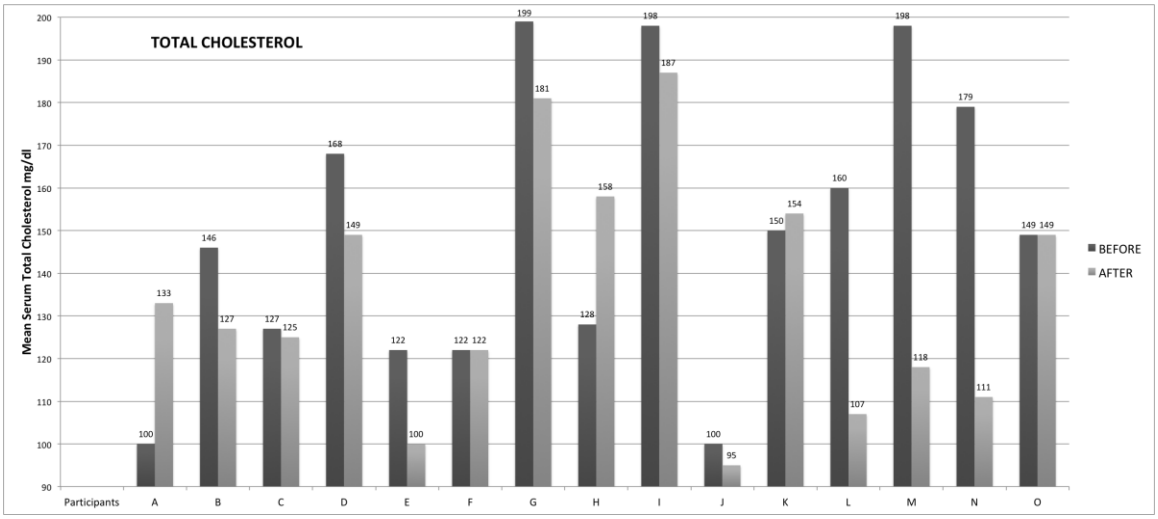

Figure 5. Total cholesterol before and after.

The results of participant's triglyceride (Figure 6) and glucose levels (Figure 7) however were not as I personally expected.

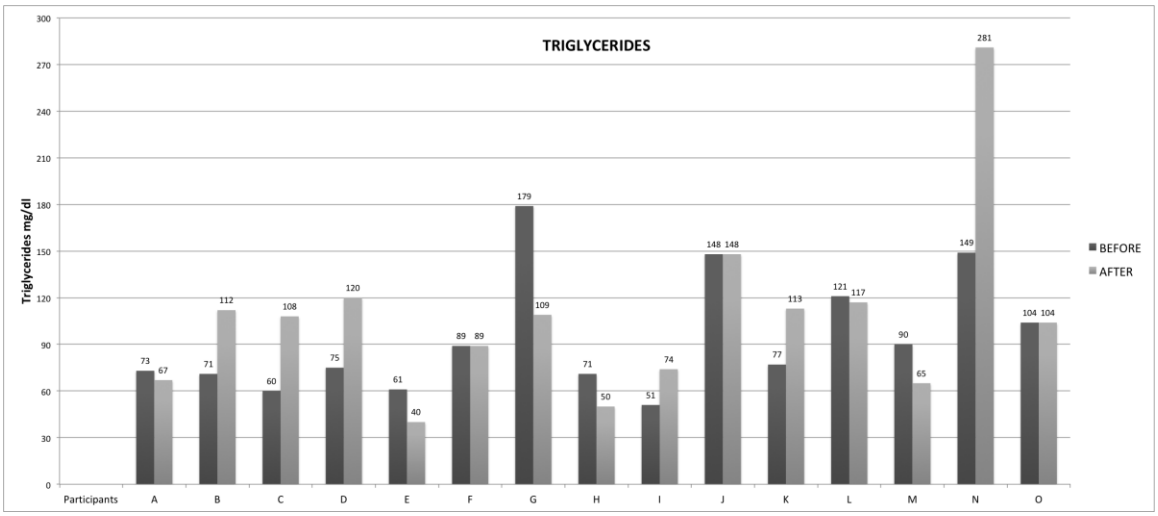

Figure 6. Triglycerides before and after.

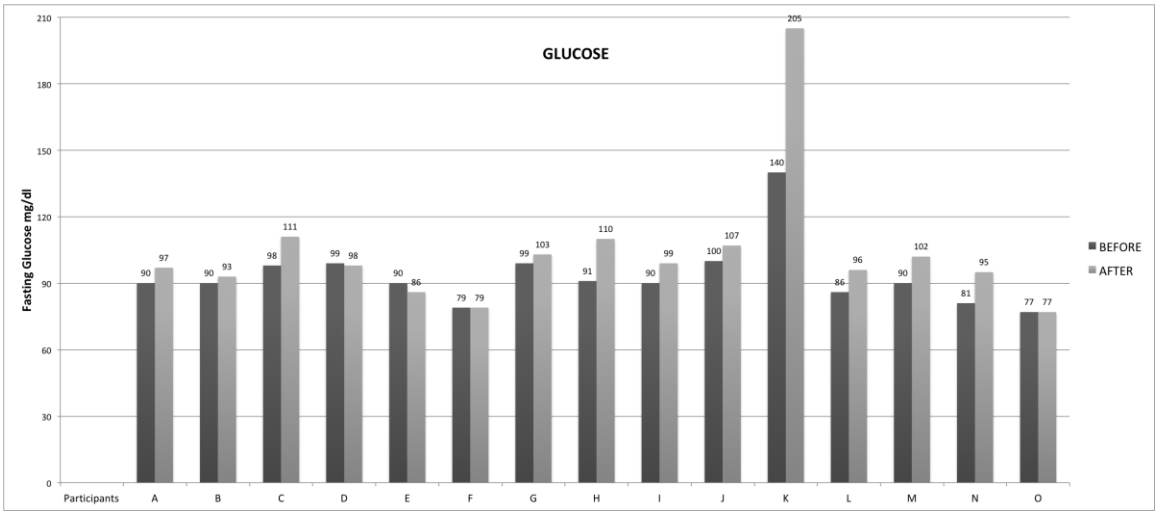

Figure 7. Glucose before and after.

For a few participants, their triglycerides and glucose levels dropped, but for most, nine out of the 15 participants who finished the program saw an increase in either

one or the other or both (participants B, D, H, I, J, K, L, M, and N). The normal range for triglycerides is less than 150 mg/dl. (CDC, 2020b) and for fasting glucose, a value of less than 99 mg/dl is considered to be normal (CDC, 2021e). Both baseline and final results are within the normal range for triglycerides.

A diet high in fat and simple carbohydrates can be responsible for elevated levels of triglycerides (Miller et al., 2011). The program did not promote any particular diet, nor did it document the exact food that participants were eating, but general guidelines were given and participants were encouraged to (a) lower their caloric intake (eating less, counting calories, intermittent fasting, eating two meals a day); (b) eat the recommend servings of fruit and vegetables (USDA, 2021a); (c) eliminate sugar sweetened beverages; (d) eat less red and processed meat; (e) eat less calorically dense/processed foods; and (f) eat more whole foods.

Except for participants C, G, H, J, and M, all participants had glucose levels in the normal range. The participants (C, G, H, J, and M) with results slightly higher than 99 mg/dl could potentially be at risk for prediabetes but more information would be needed to come to that conclusion (CDC, 2021e). It is important to mention that the initial biometric screening took place at 2:00 p.m.in the afternoon, whereas the second biometric screening took place at 8:00 a.m. A majority of participants indicated that for the first test, the last meal they had was in the evening, therefore for the first test, participants had been fasting upwards of 17 hours, whereas for the second test, participants on average had fasted for 8 hours. I have a feeling that this time difference could be responsible for the elevated numbers at the end of the program. However, it is important to highlight that the majority were still within the normal range.

Subjective Measurements

Participants also experienced other improvements of a more subjective nature. One participant said that when they drank the recommended amount of water (64 oz.) they no longer suffered from migraines as often. Another participant said that as a result of the group exercises, they were now able to move well and freely without fear of falling. Another participant said that they no longer experienced gastrointestinal reflux (GERD). Other intangible improvements ranged from (a) feeling good about themselves, (b) improved body composition, (c) having a sense of accomplishment, (d) feeling empowered that they could do it, (e) a renewed sense of strength and control over their lives, and (f) joy at seeing the results of losing weight.

Participant K and Diabetes

Of special mention is participant K. The data on tables 4-8 indicates that the program did not improve K's situation. Participant K is diabetic. Even though K's endocrinologist signed the consent form and K wore a continuous blood glucose monitor, the intermittent fasting did not work for K, neither did the two meals a day. During week 4, participant K reported feeling weak, faint, low energy, and tired all the time. From speaking with K, my understanding is that at the outset of the program, K stopped eating a low glycemic index diabetic diet in favor of eating whatever was wanted. It was my perception that K reasoned that if the person only ate two meals a day and participated in intermittent fasting, that person could eat whatever they wanted and everything would be fine. But of course, it was not. That week participant K consulted with the endocrinologist and dietician and felt better after making some adjustments in the eating menu and schedule.

I feel that this project does not work for participants with diabetes and if I were to accept diabetics into the program in a future time, it would have to be under the direct guidance and supervision of a licensed dietician. This is one area, among others where not having the support of a medical institution was negatively felt. If I do the program again, I would much rather work with a local hospital entity. Sadly, participant K passed away from COVID a little over a month after the program ended.

Post Project Evaluation Form

Participants filled out an anonymous evaluation form on the last day of the program (Appendix A). Following are a few of the highlights (Appendix C). The aspects rated the lowest had to do with accountability partners, sharing time, and the initial goal planning session. I agree with them. As already mentioned in a previous section, tardiness and punctuality contributed to the sharing time being cut out, and by consequence the time dedicated to the intentional building of meaningful relationships.

Regarding accountability partners, this concept was not introduced until week 3, day 20. That is exactly halfway through the 40 days. The reason for pushing this so far out into the program was because I had already lined up the daily topics for the first two weeks, and I wanted to emphasize during that time the concept of the 40 days in scripture, and then establish the key elements that we would be focusing on during the program (i.e., fasting, drinking water, exercising, etc.). By the time I felt we had accomplished that and could explore the idea of accountability partners, it was already well into the third week of the program.

In hindsight, I could have included accountability partners earlier in the reading, perhaps even on day one or two. Furthermore, in week three during the support group

meeting, I did not emphasize the importance of choosing an accountability partner. I left it up to each individual participant to find their own accountability partner, and that did not work out the way I intended it to. I should have been more intentional about facilitating that process.

The aspects of the program that received the highest ratings were the group exercises. When asked, "What aspect of the program did you find most helpful and why?" some of the participants wrote:

"I enjoyed working out together, it really helped motivate me."

"Meeting others with the same goal and having the mindset to make a change in our health."

"The group exercise sessions gave an opportunity to be nurtured by others."

"Group meetings and accountability partners. This was great because we were able to hear what others were experiencing and learn from each other."

"Working together in teams for group exercises."

I would say that based on their replies, the social element was probably the most instrumental in motivating change.

While the lectures and daily readings were also highly scored on the evaluation form, I believe it was the group dynamics that helped motivate participants to put to practice the things they were learning in the lectures and daily reading.

Another aspect of the feedback received by participants had to do with the medium used for the daily reading. I would hand out a paper copy of each week's daily reading to the participants during the weekly support group meeting, and they were to turn it back in during the following week's support group meeting. Living in an era of

paper reduction, participants shared with me that they would have preferred an electronic copy of the daily readings either as a fillable PDF file, or maybe even as an app.

Not all participants felt this way, but it was primarily the younger participants who did. Having an electronic copy of the "workbook" could have made things easier for them and also for me. Sometimes participants scanned the daily readings and sent it to me via email, and it was much easier to document and record the information that way than from an actual physical paper workbook.

A final insight gleaned from the evaluation form was that the majority of the participants did not want the program to end. They felt it was too short. One participant said that it should be a 12-week weight loss program, and another said we should make it an ongoing group!

Summary and Conclusion

Though COVID-19 delayed the implementation of the project nearly one year and as a result the partnership with Baptist Health Jacksonville was not able to be realized, yet there were some unintended benefits. First, my faith in God's personal love, care, and provision was strengthened by seeing Him come through at the most critical moments. Second, unlike previous attempts at community outreach, community members actually responded and the program was just one person shy of the initial goal of having 30 registrants/participants. And finally, not having Baptist Health Jacksonville's assistance opened the door for greater church member involvement.

Regarding the goals of the program, I would say that some were met more than others. The physical goals of the program were achieved, in that participants lost weight, lowered their BMI, along with improving other health benchmarks such as regular

exercise, lowering caloric intake, and lipid panel. Participants were pointed to God as the active agent of change, the project evaluation form revealed their positive reception of the daily devotional reading, which had the highest level of participation at 84% in comparison to the other daily health challenges. I had an opportunity to intentionally minister to the spiritual needs of the participants beyond issues related to weight management. However, I would suggest that a metric be established to quantify and measure spiritual influences, discipleship, outreach, and evangelism in a more comprehensive way, rather than focusing primarily on attendance, baptism, and contributions.

Some of the areas that could be improved would be the intentional building of meaningful relationships and extending the program a few more weeks to give more time for weight loss and to ingrain new habits. The introduction of an app versus a paper document would also help facilitate the collection of data and potentially improve the user experience. And finally, securing the assistance of a local community health provider would also be beneficial. This then concludes the narrative of implementing a faith-based community health outreach program focused primarily on weight loss.

CHAPTER 6

EVALUATION AND LEARNINGS

Summary

In a missional effort to bless the residents of the west side of Jacksonville, Florida, I implemented a 40-day faith-based weight loss program. The project began on May 23, 2021 and concluded on July 18, 2021. At the start, participants underwent a biometric screening, filled out various health assessment forms, and engaged in a fitness test. Candidates accepted into the program met together once a week for 40 days (six sessions) where they would do group exercises, have discussions, and listen to a lecture on weight management.

Participants were given a workbook every week containing their daily devotional readings along with certain "health challenges" such as: (a) drinking 64 oz. of water a day, (b) exercise within their target heart rate zone, (c) count their calories via the Fitbit app, (d) abstain from one item of choice, (e) practice intermittent fasting, (f) eat two meals a day, and (g) eat the daily recommended servings of fruit and vegetables, etc. The program concluded with a second biometric screening, fitness test, and program evaluation form.

Evaluation Methods, Interpretation, and Outcomes

At the conclusion of the program, participants were asked to anonymously evaluate the program and were given an evaluation form consisting of a five-point scale

along with short answer format questions (Appendix A). The form sought to ascertain the effectiveness of various aspects of the program such as: the daily health challenges, group exercises, goal and planning sessions, length of the support group meetings, content of the lectures, etc. Results of the evaluation can be reviewed in Appendix C.

While I appreciate the feedback received by this evaluation form, I am not convinced of its objectiveness. Even though the evaluation was anonymous, I feel that based on the relationships I developed with participants over the 10 weeks, plus their knowledge that this was part of the requirements for my dissertation, I think they filled out the form with the mindset of giving positive rather than objective feedback.

Nevertheless, the evaluation form confirmed a few aspects that I was already aware of: (a) group discussions had never materialized, (b) the intentional building of meaningful relationships among participants had not been prioritized, (c) accountability partners were not created, and (d) the length of the program (6 weeks) was too short. I believe an objective evaluation of the program should also measure realistic weight loss results, and the still to be determined evangelistic success markers.

The scientific literature proposes that a long-term multifaceted approach to weight loss is the most effective form of intervention. This requires the incorporation of physical fitness, nutrition, social support, trauma informed care, and behavioral change modules. Wadden et al. (2020) suggest that weight management programs should be six months in length, having anywhere between 14 to 24 weekly sessions followed up by monthly meetings for one year after. In consultation with health care professionals who have engaged in weight management programs in the community, their opinion is that it is

important to harmonize recommendations with reality. Shorter programs, anywhere between 8 to 12 weeks appear to be more sustainable in the long term.

The purpose of the project was to help people get started in a path of weight loss, and I believe that was accomplished within the six-week period. The literature however emphasizes that "the need for long term follow-up cannot be stressed too firmly: successful long-term weight maintenance depends on continuing follow-up" (Kopelman et al., 2010, p. 267). On a practical note related to this, the project should also be long enough to give participants enough time to be able to lose the recommended weight (3-5% of present body weight). While on average participants achieved the 3% threshold, I believe that if the program had been longer, the percentage of weight lost would have increased.

Conclusions

Based on the biblical models of healing found in the Old and New Testaments, the healing ministry of Jesus, and historically within the Seventh-day Adventist Church, I believe that we have an opportunity to engage in a healing ministry that is relevant for the needs of our present generation. While I hesitate to make sweeping historical generalizations, it appears that during biblical times the focus of healing was on diseases such as leprosy, blindness, and paralysis. During the early years of the Seventh-day Adventist Church, the focus was on temperance (abstinence from alcohol), discarding the use of tobacco, instruction on hygiene, and establishing sanitariums and hospitals.

I believe that one of the major health focuses for this present generation is obesity. Weight management is a new way to do comprehensive health ministries in the 21st century. Apart from the present COVID-19 pandemic, obesity is the number one

health problem today, which became worse during the pandemic (Kompaniyets et al., 2021; Simonnet et al., 2020). In the long term, obesity will kill more people than the pandemic did. While Covid-19 is an infectious disease pandemic, obesity is a chronic disease epidemic, the world's most pressing chronic disease (CDC, 2021a).

Regarding the incorporation of faith-based elements into the weight loss program, I have more questions than answers. In previous health outreach initiatives I have been more passive than active in my evangelistic attempts. And I do believe there is a place for viewing health outreach as an "entering wedge," that is, as an outreach to remove prejudice and suspicion especially in contexts where hostility against the gospel exists. Having said that, I am presently convicted about the intentional proclamation of the gospel, and this is what I sought to incorporate into my project.

Nevertheless, questions remain regarding the evangelistic potential of health evangelism. As a local pastor, my employers evaluate my performance primarily based on church attendance, baptisms, and financial contributions. How could I demonstrate the value of my project to my employers? What rubric could be established to include other aspects of discipleship into the evaluation process? How do we measure discipleship? How do we define discipleship? How do we define evangelism?

Perhaps just as important as the weight loss was the creation of community via the weekly support group meetings. A community was formed over the 10-week period. Participants experienced a "small group" where there was purpose, relational development, where all were working together for the same goal, the group was inviting God to minister to them (Latini, 2011, pp.124-148). They modeled honesty, authenticity, confidentiality, acceptance, listening, prayer, optimism, and were challenged and

stretched within their personal ability and interest (Martin & McIntosh, 1997). Without necessarily intending to, the project demonstrated the power of small groups (Stark, & Wieland, 2004).

How would we evaluate relationships made with community members even though it may not immediately or directly lead to baptisms? What steps can be taken to encourage, facilitate, and increase participant transitions from the community and into the fellowship of the local church? These and other questions remain unanswered for me.

Professional Transformation/ Personal Reflection

I am thankful for being able to complete the project, and for how God made it all happen despite the challenges faced. I am thankful for the opportunity to serve the community in providing a needed service through a faith-based weight loss program. It was very energizing and refreshing to interact with members from the community who were not part of my parish.

There are times when Seventh-day Adventists organize events for the community, where there is lingering prejudice and suspicion about who we are and what we believe, but there was absolutely no prejudice manifested by the participants in my program. All of them were positive, optimistic, grateful, and thankful to be part of the program. Some even asked me what it was that we believed, to which I gave a brief answer and handed them a pamphlet to read for themselves.

A lesson I learned from this is that it appears that when there is a legitimate need, people do not care where the help is coming from. Prejudice, at least among those to whom are being ministered to, will stay at a minimum. Perhaps that is why in the gospels we see people from every nation, tribe, and language group approach Jesus for healing

irrespective of his ethnicity and religious worldview (Matt 4:13-16, 25, 8:5, 11; Mark 5:1, 7:24-26; John 4:7, 12:20-21.)

> Christ's method alone will give true success in reaching the people. The Saviour mingled with men as one who desired their good. He showed His sympathy for them, ministered to their needs, and won their confidence. Then He bade them, "Follow Me." (White, 1905, p. 143)

However, on the flip side, could it also be true that sometimes the reason why Adventists experience opposition and prejudice in their efforts to minister in their community is because they are not meeting the actual needs of the community, instead they are imposing on the community what they think the community needs to hear (i.e., Sunday's the wrong day, Sabbath is the right day, or "Present Truth," or the Pope is the antichrist and beast of Revelation 13, etc.). Of course, Jesus did encounter opposition in His ministry, but it did not come from those whom he was helping, but from those who were jealous of His success.

Costs and Measuring a Return on Investment

I calculated the cost of the program to be approximately $10,500. Funding came from four main sources: the Florida Conference, Jacksonville First Church, Argyle Forest Company, and my personal financial contribution. While I do not necessarily think that this is a large sum of money, yet in the future I would like to fund this project through a grant. I am not sure how willing the local church would be to spend this amount of money every year or perhaps even twice a year and I say this for two reasons. The first has to do with local church members/leaders understanding the philosophy behind the missional church. One of the aspects of the church is to be a blessing to the community without any ulterior motives or strings attached (e.g., we will bless a visitor, but in turn

we expect the visitor to become a baptized, regular attending, active volunteer, and financial contributor of our local congregation).

We see this aspect of the missional church manifested in the ministry of Jesus who healed the multitudes and blessed them regardless of whether they became his disciples or not. In fact, there are stories in the gospels where those who were healed were sometimes unthankful and yet they were healed still (Matt 5:43-47, 12:15; Luke 17:11-19). Therefore, do we, as a body of believers have within us this understanding and altruistic missional disposition about us?

Second, but closely related to the first point, is that when programs like this are evaluated, one of the questions asked, and rightly so, is "What is our return on investment?" A sum of $10,500 was spent for a 6 to 10-week weight loss program for the community. What kind of return/results should we expect to see on this investment? How many baptisms should we expect to see from this? Or perhaps before we begin asking the question of baptisms, we should take a step back and begin adopting a new set of values, that is, seeing and accepting the value of community and small groups. Recognizing the value of a group of people who want to be together on a journey of faith and trust, a safe place for honesty and vulnerability, and ensure that there is a continued connection and willingness on the part of the church to support the participants of the weight loss program. I think these are very important and fair questions to ask.

While we should engage in acts of disinterested benevolence towards the community without any ulterior motives, is it wrong to have expectations of community members joining the church? While Jesus ministered to people altruistically and without ulterior motives, He also gave invitations to those whom he encountered to follow Him,

and he encouraged his disciples to extend similar invitations (Matt 4:18-22, 9:9, 10:5-8, 11:28-30, 19:21, 28:18-20; Mark 1:14-15; (White, 1905, p. 143). The missional health outreach program is but a sample of the joy and blessing that exists in a fuller way within the community of faith that is the church body. Why would we not want community members to "taste and see that the Lord is good"?

What then would healthy expectations look like? How can we bridge participants who engage in our missional activities into the church? What kind of invitation can be given to them to become participating members in the body of Christ as expressed within the statement of beliefs of the Seventh-day Adventist Church? What role does the incorporation of listening skills, asking intentional life giving questions such as, "How can I pray for you this week?" Or "How is God helping you?" and the continued exploring of thoughts and feelings in helping community members desire to become baptized members of the church (Fryling, 2009, pp. 35-64)?

One way to measure this would be by seeing the participant's willingness to attend other church sponsored events. Elvin Adams (personal communication, August 13, 2021) proposes that once participants have learned to trust God, seen real change in their lives, and interacted with loving church members, their willingness to attend another event is much greater and the cost much less, because the invitation given would be personal and requires no money.

If practical invitations are being consistently made throughout the health outreach program, then it assumes that there's something to invite participants to. In my experience, the only thing happening at my church is Sabbath school, Sabbath worship, and prayer meeting. It is my opinion that in order to invite non-members to these

gatherings it would require these gatherings to undergo an evangelistic, seeker friendly transformation in how they are conducted. At present, I would probably be embarrassed to invite non-members to some of our gatherings based on the content of the discussions (arguing about theological minutia, advancing conspiracy theories, promoting political agendas, extensive quoting of Ellen White, tone deafness to matters of injustice, racism, homophobia, misogyny, mental/emotional health, hate, abuse, ecology, etc.) This is my honest struggle. In the past I have had no problems creating groups, the challenge has come in helping them transition into the life and fellowship of the church.

But coming back to the question, "What does a valid return on investment look like for missional programs?" Some of this would be difficult to measure, but here is one suggestion. What if we take the total amount the program cost us ($10,500) and divide it by the 15 participants who finished the program? The cost/expense/investment totals $700 per participant. Studies indicate that the health benefits of moderate weight loss (5-10% of present body weight) are the following: 20% decrease in overall mortality, 30% decrease in mortality from diabetes, 40% decrease in cancer related deaths, 10mmHg decrease in blood pressure, 15% decrease in cholesterol and reduction of other lipids, and better blood glucose control (Kopelman et al., 2010, p. 268). Can one get all of that for only $700? That seems like a bargain on one hand, and like an amazing service to the community on the other.

Understanding the philosophy of engaging in missional programs for the community and having clear, measurable, and valid expectation as a result of these missional programs are an important learning from the project.

The Transpiration of Life

Another major learning from the implementation of this project is that life did not stop because we started a 40-day faith-based weight loss program. One of the participants was in a car accident. Other participants were dealing with family matters, job transitions, medical procedures, travel, and other happenings. We had a participant lose a grandmother to COVID. Other participants became infected with COVID during the 40-day program (though not at the program). We documented vaccination status, wore masks, did outdoor activities, socially distanced, and other ways to keep everyone from getting COVID. About a month after the program ended, our hearts broke when we learned that one of our participants had contracted COVID and passed away.

While I feel that these events adversely affected participants in reaching their stated weight loss goals, at the same time, that is life. Life is not without challenges or interruptions, and part of living, learning, growing, and maturing is learning how to continue to live life despite its challenges and interruptions. I viewed these life events as an opportunity to seek God, to pray with and for the participants, to encourage them, and to give hope to them through the promises of Scripture. These life events were moments for ministry and pastoral care.

The Death of My Son

I also suffered a personal loss during my DMin journey. My first-born son, Leiv, passed away shortly after birth during the second year of the program (2016). It destroyed my motivation, sunk me into darkness and depression, everything felt meaningless to me. It was only through the grace of God, the love and understanding of my church, and the ministry of the hospital chaplains that I was able to continue my studies. The church gave

me time to mourn. My wife and I began attending perinatal and infant loss support groups.

Though angry at God and hurt, He has drawn near to me, comforted me, sustained me, and became real to me in a way I have never experienced before. When a person looks at all the options and possibilities afforded by a life without God, he/she quickly realize that God is the only one who offers hope. There is no hope outside of God.

I must also mention the grace of the DMin office. When Leiv passed away, Dr. Penno sent me a personal handwritten card, as did Rita Pusey. That meant the world to me. Michael Cauley, my cohort leader also helped me tremendously. Even though it delayed my studies, they too gave me time to mourn. Up to that point I thought I was just another faceless student with an ID number on a registration sheet. But I realized that to them, I was a real human being.

During the fourth year of the program (2018), my second son, Lian Yves was born, and joy began to return to my life. It was during this time that I came to the realization that quitting the program was not an option. I had to finish it, if anything for Leiv. I cannot describe exactly how it happened, but one day my motivation returned, and I said to myself, "I need to finish this. I am going to finish this. Let me get to work." In 2020 my third son, Emil, was born and though the pandemic stalled the launch of the project, it did not derail my desire. Even when I hit various dead ends, God came through in miraculous ways.

Miscellaneous Learnings

Reading through Dr. Adam's work gave me a renewed appreciation for the importance of data collection and pointing participants to God as the active agent of

change while at the same time sharing with them practical, scientifically sound and evidence-based findings. The organization required to implement this program, the importance of laying out the plans as described in chapter 4 of this dissertation developed skills in me that hitherto I had not acquired. Finally, as already mentioned in chapter 5, my faith in God was strengthened because of the DMin program. I jokingly say that undergrad filled me with hubris. The MDiv made me a skeptic. But the DMin restored my faith and confidence in God.

Recommendations

I believe that if a local church finds itself in a similar context as mine, with similar needs within the church and outside in the community regarding obesity and overweight, they could see positive results by hosting a weight management program. According to the literature review, there are several faith-based weight management programs to choose from. However, perhaps a wider implication that could be drawn is the need for the development of an Adventist weight management program.

While much good can be accomplished through an emphasis on general wellness, I think that the present moment offers an opportunity for the development of a faith-based program specifically focused and targeted for weight loss. This is where I believe that my project is a unique contribution.

An app could be developed for this program that can track basic markers of health such as heart rate, exercise duration, steps, calories consumed, duration of sleep, water intake, devotional thoughts, and more. This app could lighten much of the burden demanded by data collection. Furthermore, a rubric could be developed, and hard data

collected to measure the program's evangelistic potential and effectiveness. Based on the community turnout, I feel there is genuine interest for a faith-based weight loss program.

I feel that my program could have been more intentional about helping participants learn to trust God for change and develop a relationship with him through prayer and study of the scriptures. I have an unquieted inquiry to better understand behavior change from a biblical perspective. This project has also raised questions in my mind about developing a rubric for discipleship, evangelism, and health outreach. What should realistic expectations and measurements look like? What are the best methods to employ to bridge participants from a health outreach program and into the fellowship of the local church?

For my part, I would like to continue developing this program and implement it again in the future. Initially I had no plans for implementation beyond the academic requirements, but I would like to see this program grow and become standardized along with an organizational manual. For this to happen I need to continue refining my plan, extend the duration of the program, develop a better long-term intervention strategy, work in cooperation with trained medical personnel, secure funding, negotiate with app developers, as well as pilot more programs and collect more data. Once all this would be in place, I would then feel comfortable promoting my program for other churches to implement within their own context and communities.

APPENDIX A

CONSENTS FORMS

Andrews University

INFORMED CONSENT FORM

I am conducting research for a weight-loss project, in partial fulfillment for my Doctor of Ministry degree at Andrews University, Berrien Springs, Michigan. Your participation in this study is greatly appreciated.

Research Title: "Implementing a Faith-based Weight Loss Outreach Program for the Westside Community of Jacksonville, Florida."

Purpose of Study: To develop, implement, and evaluate a faith-based weight loss outreach program.

Duration of participation in study: I understand that the project will last 6 weeks. Prior to the program starting, I will be asked to participate in a biometric health screening including a blood sample via finger prick. I will also be asked to fill out six different intake surveys and questionnaires, along with identifying personal health goals. Notes on participant's progress, challenges, behaviors, attitudes, etc., will also be documented.

If I have been diagnosed with Cardiovascular Disease (CVD) or answered "Yes" on any of the questions of the "Get Active Questionnaire," I will need to have my healthcare provider (Primary Care or Cardiologist) sign and date a separate consent form clearing me for physical exercise.

In weeks one through six I will be asked to participate in weekly support group meetings including health lectures, a one mile walking test, engage in daily health challenges including but not limited to inspirational readings, exercise using heart rate monitors (which will be provided), intermittent fasting, abstaining from certain foods, drinks and substances while engaging in healthy lifestyle practices such as drinking water, eating fruits and vegetables, etc.

There is a consent form for me to sign for the timed one-mile walking test. There will also be a consent form to be signed by my primary health care provider for participation in the intermittent fasting.

Week six will consist of an exit health screening including a blood sample via finger prick. A second one-mile walking test will be conducted. I will also be asked to fill out

six different exit surveys and questionnaires, along with evaluating progress made towards personal health goals and clarification of next steps.

In total, these activities will take approximately between 43 days of my time. Two days for health screenings, orientation, assessments, exit surveys, etc. and 41 days of health challenges and weekly group meetings.

Benefits: Engaging in this project and its activities could lead to weight loss, cardiovascular health, longevity, regulation of lipids and hypertension, lower rates of type 2 diabetes, improved self-esteem, increased energy levels, improved respiratory function, reduced risk of stroke, reduced risk of osteoporosis, reduced risk of metabolic syndrome, reduced risk of colon cancer, reduced risk of breast cancer, decreased anxiety and depression, improved cognitive function, enhanced feelings of well-being, enhanced physical function, enhanced work performance, and prevention of functional limitations in older adults. Furthermore all participants will receive an optical heart rate monitor, a water bottle, and will be directed towards other resources available in the community, as well as building supportive relationships with one another.

Risks: When engaging in exercise potential risks include: fatigue, pain, injury, dizziness, muscle soreness, shortness of breath, and heightened heart rate. During the one mile walking tests, an ambulance with trained EMS personnel will be present. For those who have been diagnosed with cardiovascular disease (CVD) there is a risk of sudden death when engaging in vigorous activity. Therefore we ask those participants diagnosed with CVD or who answered "Yes" on any of the questions of the "Get Active Questionnaire." to bring a separate consent form signed by your physician/cardiologist clearing you for physical activity. The various health challenges and support group meetings could lead to potential anxiety, regret, and emotional distress at the task ahead. These risks could be brief, or extended, temporary or permanent, and could occur during participation in the research or arise afterwards. Participants will be able to engage with trained fitness and lifestyle coaches, as well as doctors, nutritionists, and clinical psychologists.

Voluntary Participation: I have been informed that my participation in this study is completely voluntary. I am aware that there will be no penalty if I decide to cancel my participation in this study. There is no cost to me for participating in this study

Confidentiality: I understand that my identity in this study will not be disclosed in any published document. And that the researcher will keep digital records secured on an encrypted hard drive and paper copies will be kept in a locked file cabinet.

Contact: I am aware that I can contact the supervisor Dr. Jaspine Bilima at (269) 923-9530 or jaspinebilima@gmail.com or the researcher himself, Jonathan Peinado at (904) 479-8615 or peinado@andrews.edu for answers to questions related to this study. I can also contact the Institutional Review Board at Andrews University at (269) 471-6361 or irb@andrews.edu.

I have read the contents of this consent and received verbal explanations to questions I had. My questions concerning this study sent to participate in this study. I am fully aware

that if I have any additional questions I can contact the researcher Jonathan Peinado or Dr. Jaspine Bilima.

Signature (Subject)	**Date**
Signature (Researcher)	**Date**

Andrews University

CARDIOVASCULAR DISEASE (CVD) CONSENT FORM

Overview: I am considering joining a six-week research weight-loss project, conducted by Jonathan Peinado, who is a doctoral student at Andrews University, Berrien Springs, Michigan.

I am presenting this form to you because I have been diagnosed with Cardiovascular Disease (CVD) or I answered "Yes" on one of the questions of the "Get Active Questionnaire" and hence I will need to be cleared for the exercises by my healthcare provider (Primary Care or Cardiologist).

Physical Activity Description: At the onset of the project there will be a Rockport One-Mile Walking Test, which is a 12-minute timed walking test to evaluate maximal aerobic power by evaluating the distance covered (miles) within the 12-minute time frame. Participants will be able to stop when they wish because of feelings of fatigue or any other discomfort. Trained EMS personnel will be present on site to assist in case of any medical emergency.

Afterwards, the project will request participants to engage in low impact cardiovascular exercises of their choosing (i.e., walking, treadmill, elliptical, etc.) for the duration of the six-week project. These exercises will be completed at the participant's own discretion. Participants will also use heart rate monitors to keep track of each exercise session.

Exercises will continue on a graduated scale starting at 20 minutes a day twice a week, increasing to 30 minutes a day three times a week, and up to 40 minutes a day four times a week.

Attendant Risks and Discomforts: When engaging in exercise potential risks include: fatigue, pain, injury, dizziness, muscle soreness, shortness of breath, and heightened heart rate. For those who have been diagnosed with cardiovascular disease (CVD) there is a risk of sudden death when engaging in vigorous activity.

Contact: If you have questions or concerns you may contact the researcher himself, Jonathan Peinado at (904) 479-8615 or peinado@andrews.edu or his supervisor Dr. Jaspine Bilima at (269) 923-9530 or jaspinebilima@gmail.com for answers to questions

related to this study. You can also contact the Institutional Review Board at Andrews University at (269) 471-6361 or irb@andrews.edu.

I have read the contents of this consent form and therefore clear _____ for participation in the physical activities of this research project. ***name***

_____ _____

Signature of Physician or Qualified Personnel **Date**

Andrews University

TIME RESTRICTED EATING CONSENT FORM

Overview: I am considering joining a six-week research weight-loss project, conducted by Jonathan Peinado, who is a doctoral student at Andrews University, Berrien Springs, Michigan.

Description: I am presenting this form to you because part of the project will involve time-restricted eating. That is, participants will be asked to refrain from eating for a 15 hour window, suggested to begin around 6:00 pm in the evening and ending around 8:00 am the following morning. However, these times are merely suggestions and are flexible depending on the needs of each participant.

In addition, participants may also be asked to eat only two meals a day. I understand that my participation in this practice is completely voluntary and I may cease participation in the fasting portion of this project at any time without penalty.

As my endocrinologist or primary healthcare provider, I would like your counsel on this matter of intermittent fasting, any concerns you may have, and also, if there are no contraindications, your clearance for my participation in this activity.

Contact: If you have questions or concerns you may contact the researcher himself, Jonathan Peinado at (904) 479-8615 or peinado@andrews.edu or his supervisor Dr. Jaspine Bilima at (269) 923-9530 or jaspinebilima@gmail.com for answers to questions related to this study. You can also contact the Institutional Review Board at Andrews University at (269) 471-6361 or irb@andrews.edu.

I have read the contents of this consent form and therefore clear _____ for participation in the intermittent fasting of this research project. *name*

_____ _____

Signature of Physician or Qualified Individual **Date**

Andrews University

ROCKPORT ONE MILE
TIMED WALKING TEST
CONSENT FORM

1. **Purpose and Explanation of the Test:** You will perform a 12-minute timed walking test to evaluate maximal aerobic power by evaluating the distance covered (miles) within the 12-minute time frame. It is important for you to realize that you may stop when you wish because of feelings of fatigue or any other discomfort.

2. **Attendant Risks and Discomforts:** There exists the possibility of certain changes occurring during the test. These include abnormal blood pressure; fainting; irregular, fast, or slow heart rhythm; and in rare instances, heart attack, stroke, or death. Every effort will be made to minimize these risks by evaluation or preliminary information relating to your health and fitness and by careful observations during testing. Trained EMT personnel will be onsite to assist in any medical emergency.

3. **Responsibilities of the Participant:** Information you possess about your health status (including but not limited to CVD) or previous experiences of heart-related symptoms (e.g., shortness of breath with low-level activity; pain; pressure; tightness; heaviness in the chest, neck, jaw, back, and/or arms) with physical effort may affect the safety of your exercise test. Your prompt reporting of these and any other unusual feelings with effort during the exercise test itself is very important. You are responsible for fully disclosing your medical history as well as symptoms that may occur during the test. You are also expected to report all medications (including nonprescription) taken recently and, in particular, those taken today to the testing staff.

4. **Benefits to be Expected:** The results obtained from the exercise test may assist in evaluating maximum heart rate (HR_{max}), heart rate reserve (HRR), target heart rate (THR) and what type of physical activities you might do with low risk.

5. **Inquiries:** Any questions about the procedures used in the exercise test or the results of your test are encouraged. If you have any concerns or questions, please ask us for further explanations.

6. **Use of Medical Records:** The information that is obtained during exercise testing will be treated as privileged and confidential as described in the Health Insurance Portability and Accountability Act of 1996 (HIPAA). It is not to be released or revealed to any individual except your referring physician without your written consent. However, the

information obtained may be used for statistical analysis or scientific purposes with your right to privacy retained.

7. **Freedom of Consent:** I hereby consent to voluntarily engage in a 12 minute timed walking test to determine my exercise capacity and state of cardiovascular health. My permission to perform this exercise test is given voluntarily. I understand that I am free to stop the test at any point if I so desire.

I have read this form, and I understand the test procedures that I will perform and the attendance risks and discomforts. Knowing these risks and discomforts, and having had opportunity to ask questions that have been answered to my satisfactions, I consent to participate in this test.

_____	_____
Date	Signature of Patient
_____	_____
Date	Signature of Witness

Demographic Information

Directions: Please answer each question as accurately as possible.

1) What is your date of birth? _____

2) What is your gender? _____

3) How would you best describe yourself?

a) American Indian or Alaska Native

b) Asian

c) Black or African American

d) Hispanic/Latin/Spanish

e) Indian (India)

f) Middle-Eastern

g) Native Hawaiian or Other Pacific Islander

h) White

i) Other

4) What is the highest level of education completed?

a) High School Diploma or G.E.D.

b) Vocational or Technical Certificate

c) Associate's Degree

d) Bachelor's Degree

e) Master's Degree

f) Doctorate Degree

5) Are you currently employed? _____

6) If so, do you work:

a) Full-time

b) Part-time

c) Seasonal

d) Other _____

7) What is your yearly income?

a) $20,000 - $29,000

b) $30,000 - $39,000

c) $40,000 - $49,000

d) $50,000 - $59,000

e) $60,000 - $69,000

f) $70,000 - $79,000

g) $80,000 - $89,000

h) $90,000 - $99,000

i) $100,000 or greater

Stages of Change
Questionnaire

Exercise

The following five statements will assess how much you currently exercise in your leisure time. Regular exercise is any planned physical activity (e.g., brisk walking, jogging, bicycling, swimming, line-dancing, tennis, etc.) performed to increase physical fitness. Such activity should be performed three or more times per week for 20 or more minutes per session at a level that increases your breathing rate and causes you to break a sweat.

Do you exercise regularly according to the definition above? **Please mark only ONE of the five statements.**

1) _____ No, and I do not intend to begin exercising regularly in the next 6 months.

2) _____ No, but I intend to begin exercising regularly in the next 6 months.

3) _____ No, but I intend to begin exercising regularly in the next 30 days.

4) _____ Yes, I have been, but for less than 6 months.

5) _____ Yes, I have been for 6 months or more.

Evaluation:
Item 1 = Precontemplation
Item 2 = Contemplation
Item 3 = Preparation
Item 4 = Action
Item 5 = Maintenance

Stages of Change Questionnaire

Physical Activity

The following five statements will assess how much you currently engage in regular physical activity in your leisure time. For physical activity to be regular it must be done for 30 minutes (or more) per day, and be done at least 5 days per week. For example, you could take three 10-minute brisk walks or ride a bicycle for 30 minutes. Physical activity includes such activities as walking briskly, biking, swimming, line-dancing, and aerobics classes or any other activities where exertion is similar to these activities. Your heart rate and/or breathing should increase, but there is no need to exhaust yourself.

Do you regularly engage in physical activity according to the definition above? Please mark only ONE of the five statements.

1) _____ No, and I do not intend to begin regularly engaging in physical activity in the next 6 months.

2) _____ No, but I intend to begin regularly engaging in physical activity in the next 6 months.

3) _____ No, but I intend to begin regularly engaging in physical activity in the next 30 days.

4) _____ Yes, I have been, but for less than 6 months.

5) _____ Yes, I have been for 6 months or more.

Evaluation:
Item 1 = Precontemplation
Item 2 = Contemplation
Item 3 = Preparation
Item 4 = Action
Item 5 = Maintenance

Processes of Change Scale

The following experiences can affect the exercise habits of some people. Think of similar experiences you may be currently having or have had during the past month. Then rate how frequently the event occurs by circling the appropriate number. Please answer using the following 5-point scale:

1	2	3	4	5
Never	Seldom	Occasionally	Often	Repeatedly

1.I read articles to learn more about exercise. 1	2	3	4	5
2.I get upset when I see people who would benefit from exercise but choose not to exercise.....1	2	3	4	5
3.I realize that if I don't exercise regularly, I may get ill and be a burden to others. 1	2	3	4	5
4.I feel more confident when I exercise regularly. 1	2	3	4	5
5.I have noticed that many people know that exercise is good for them.....1	2	3	4	5
6.When I feel tired, I make myself exercise anyway because I know I will feel better afterward.....1	2	3	4	5
7.I have a friend who encourages me to exercise when I don't feel up to it.....1	2	3	4	5
8.One of the rewards of regular exercise is that it improves my mood. 1	2	3	4	5
9.I tell myself that I can keep exercising if I try hard enough.....1	2	3	4	5
10.I keep a set of exercise clothes with me so I can exercise whenever I get the time.....1	2	3	4	5
11.I look for information related to exercise. 1	2	3	4	5
12.I am afraid of the results to my health if I do not exercise. 1	2	3	4	5

13.I think that by exercising regularly I will not be a burden to the health care system.	1	2	3	4	5
14.I believe that regular exercise will make me a healthier, happier person.	1	2	3	4	5
15.I am aware of more and more people who are making exercise a part of their lives.	1	2	3	4	5
16.Instead of taking a nap after work, I exercise..	1	2	3	4	5
17.I have someone who encourages me to exercise.	1	2	3	4	5
18.I try to think of exercise as a time to clear my mind as well as a workout for my body.	1	2	3	4	5
19.I make commitments to exercise.	1	2	3	4	5
20.I use my calendar to schedule my exercise time.	1	2	3	4	5
21.I find out about new methods of exercising.	1	2	3	4	5
22.I get upset when I realize that people I love would have better health if they exercised.	1	2	3	4	5
23.I think that regular exercise plays a role in reducing health care costs.	1	2	3	4	5
24.I feel better about myself when I exercise.	1	2	3	4	5
25.I notice that famous people often say that they exercise regularly.	1	2	3	4	5
26.Instead of relaxing by watching TV or eating, I take a walk or exercise.	1	2	3	4	5
27.My friends encourage me to exercise.	1	2	3	4	5
28.If I engage in regular exercise, I find that I get the benefit of having more energy.	1	2	3	4	5
29.I believe that I can exercise regularly.	1	2	3	4	5
30.I make sure I always have a clean set of exercise clothes.	1	2	3	4	5

Evaluation:

1) Consciousness Raising- 1, 11, 21

2) Dramatic Relief- 2, 12, 22

3) Environmental Reevaluation- 3, 13, 23

4) Self- Reevaluation- 4, 14, 24

5) Social Liberation- 5, 15, 25

6) Counterconditioning- 6, 16, 26

7) Helping Relationships- 7, 17, 27

8) Reinforcement Management- 8, 18, 28

9) Self-Liberation- 9, 19, 29

10) Stimulus Control- 10, 20, 30

Reprinted with permission from Nigg CR and Riebe D. The Transtheoretical Model: Research review of exercise behavior and older adults. In: Burbank, P.M., & Riebe, D.(Eds.) *Promoting exercise and behavior change in older adults: Interventions with the transtheoretical model*. New York, NY: Springer, 2002, pp.147-180.

Decisional Balance Scale

This section looks at positive and negative aspect of exercise. Read the following items and indicate how important each statement is with respect to your decision to exercise or not to exercise in your leisure time by filling in the appropriate circle. Please answer using the following 5-point scale:

1	2	3	4	5
Not at all important	Somewhat important	Moderately important	Very important	Extremely important

1.I would have more energy for my family and friends if I exercised regularly. 1 2 3 4 5

2.I would feel embarrassed if people saw me exercising.....1 2 3 4 5

3.I would feel less stressed if I exercised regularly. 1 2 3 4 5

4.Exercise prevents me from spending time with my friends. 1 2 3 4 5

5.Exercising puts me in a better mood for the rest of the day.....1 2 3 4 5

6.I feel uncomfortable or embarrassed in exercise clothes. 1 2 3 4 5

7.I would feel more comfortable with my body if I exercised regularly.....1 2 3 4 5

8.There is too much I would have to learn to exercise. 1 2 3 4 5

9.Regular exercise would help me have a more positive outlook on life. 1 2 3 4 5

10.Exercise puts an extra burden on my significant other. 1 2 3 4 5

Evaluation:

PROS- 1, 3, 5, 7, 9

CONS- 2, 4, 6, 8, 10

Get Active Questionnaire

CANADIAN SOCIETY FOR EXERCISE PHYSIOLOGY –
PHYSICAL ACTIVITY TRAINING FOR HEALTH (CSEP-PATH®)

Physical activity improves your physical and mental health. Even small amounts of physical activity are good, and more is better.

For almost everyone, the benefits of physical activity far outweigh any risks. For some individuals, specific advice from a Qualified Exercise Professional (QEP – has post-secondary education in exercise sciences and an advanced certification in the area – see csep.ca/certifications) or health care provider is advisable. This questionnaire is intended for all ages – to help move you along the path to becoming more physically active.

☐ I am completing this questionnaire for myself.

☐ I am completing this questionnaire for my child/dependent as parent/guardian.

PREPARE TO BECOME MORE ACTIVE

The following questions will help to ensure that you have a safe physical activity experience. Please answer **YES** or **NO** to each question before you become more physically active. If you are unsure about any question, answer **YES**.

YES	NO	
		1 Have you experienced **ANY** of the following (A to F) **within the past six months**?
○	○	**A** A diagnosis of/treatment for heart disease or stroke, or pain/discomfort/pressure in your chest during activities of daily living or during physical activity?
○	○	**B** A diagnosis of/treatment for high blood pressure (BP), or a resting BP of 160/90 mmHg or higher?
○	○	**C** Dizziness or lightheadedness during physical activity?
○	○	**D** Shortness of breath at rest?
○	○	**E** Loss of consciousness/fainting for any reason?
○	○	**F** Concussion?
○	○	**2** Do you currently have pain or swelling in any part of your body (such as from an injury, acute flare-up of arthritis, or back pain) that affects your ability to be physically active?
○	○	**3** Has a health care provider told you that you should avoid or modify certain types of physical activity?
○	○	**4** Do you have any other medical or physical condition (such as diabetes, cancer, osteoporosis, asthma, spinal cord injury) that may affect your ability to be physically active?

NO to all questions: go to Page 2 – ASSESS YOUR CURRENT PHYSICAL ACTIVITY

YES to any question: go to Reference Document – ADVICE ON WHAT TO DO IF YOU HAVE A YES RESPONSE

Get Active Questionnaire

ASSESS YOUR CURRENT PHYSICAL ACTIVITY

Answer the following questions to assess how active you are now.

1 During a typical week, on how many days do you do moderate- to vigorous-intensity aerobic physical activity (such as brisk walking, cycling or jogging)? ☐ DAYS/WEEK

2 On days that you do at least moderate-intensity aerobic physical activity (e.g., brisk walking), for how many minutes do you do this activity? ☐ MINUTES/DAY

For adults, please multiply your average number of days/week by the average number of minutes/day: ☐ MINUTES/WEEK

Canadian Physical Activity Guidelines recommend that adults accumulate at least 150 minutes of moderate- to vigorous-intensity physical activity per week. For children and youth, at least 60 minutes daily is recommended. Strengthening muscles and bones at least two times per week for adults, and three times per week for children and youth, is also recommended (see csep.ca/guidelines).

GENERAL ADVICE FOR BECOMING MORE ACTIVE

Increase your physical activity gradually so that you have a positive experience. Build physical activities that you enjoy into your day (e.g., take a walk with a friend, ride your bike to school or work) and reduce your sedentary behaviour (e.g., prolonged sitting).

If you want to do **vigorous-intensity physical activity** (i.e., physical activity at an intensity that makes it hard to carry on a conversation), and you do not meet minimum physical activity recommendations noted above, consult a Qualified Exercise Professional (QEP) beforehand. This can help ensure that your physical activity is safe and suitable for your circumstances.

Physical activity is also an important part of a healthy pregnancy.

Delay becoming more active if you are not feeling well because of a temporary illness.

DECLARATION

To the best of my knowledge, all of the information I have supplied on this questionnaire is correct.
If my health changes, I will complete this questionnaire again.

I answered NO to all questions on Page 1

Sign and date the Declaration below

I answered YES to any question on Page 1

Check the box below that applies to you:

☐ I have consulted a health care provider or Qualified Exercise Professional (QEP) who has recommended that I become more physically active.

☐ I am comfortable with becoming more physically active on my own without consulting a health care provider or QEP.

Name (+ Name of Parent/Guardian if applicable) [Please print]	Signature (or Signature of Parent/Guardian if applicable)	Date of Birth

Date	Email (optional)	Telephone (optional)

With planning and support you can enjoy the benefits of becoming more physically active. A QEP can help.

☐ Check this box if you would like to consult a QEP about becoming more physically active.
(This completed questionnaire will help the QEP get to know you and understand your needs.)

Reprinted with permission from Canada's Physical Activity Guide to Healthy Active Living. Ontario (Canada): Public Health Agency of Canada [Accessed 2020 Feb.20].Permission from the Canadian Society for Exercise Physiology, www.csep.ca

Goal Setting Worksheet

Think about the goals you want to achieve during the next 40 days. Take some time to brainstorm a few of them. Write down two or three of the most important goals.

1)
2)
3)

If you want to increase your chances of being successful, you should:

a) **Set goals that you personally value and that reflect your personal interests**. Strive to do something you like doing or are interested in doing.

b) **Set goals that are not only challenging, but are also achievable**. Your goals should not be too hard or too easy

c) **Set goals that are clear and specific**. Research shows that people are less successful when their goals are vague.

d) **Set both short- and long-term goals**. Make short-term goals along the way to reaching your long term goals.

SMART goals are goals that are **S**pecific (describe when, where, how, what), **M**easurable (quantifiable), **A**chievable/**R**ealistic, and **T**ime sensitive. Taking a look at your three goals above, try and see how you can make them **SMART**.

	Is your goal specific, measurable, achievable, realistic, and time sensitive? Why? Why not? How so?
Goal 1	
Goal 2	
Goal 3	

More Information: When making fitness goals, the American College of Sports Medicine (ACSM) has recommended charts that may be helpful for a wide variety of categories: Aerobic power, upper body strength, leg strength, push-up, crunch, range of motion, trunk flexion, etc. Ask the facilitator for more information.

Exercise Plan

1) Why do I want to change my behavior and become more active?

2) What are the most important reasons for changing my behavior?

3) What makes exercise interesting?

4) What are some of the obstacles to exercising?

5) How will you overcome those barriers to exercising?

6) What activities do I enjoy or want to try?

Exercise #1	Exercise #2	Exercise #3

Are there any other activities you'd like to try?

7) Where will I exercise?

Location #1	Location #2	Location #3

How far from home is it? How pleasant is the location?

8) When will I engage in this activity?

Day: Time: Duration:	Day: Time: Duration:	Day: Time: Duration:

Establishing Target Heart Rate (THR)

Heart Rate Reserve (HRR) Method

Maximum Heart Rate (HR_{max}) = _____ beats per minute (220 – Age)

Resting Heart Rate (HR_{rest}) = _____ beats per minute (taken first thing in the morning)

Heart Rate Reserve (HRR) = HR_{max} - HR_{rest} _____

Desired exercise intensity range: 50% - 60%

Lower Limit = _____ HRR x 0.5 = _____ + _____ HR_{rest} = _____ THR

Upper Limit = _____ HRR x 0.6 = _____ + _____ HR_{rest} = _____ THR

THR Range = _____ to _____

Distance Covered in the 12 Minute Walking Test = _____

Key= 1 Lap is the equivalent of ¼ mile.

Lecture Descriptions

Below is an overview of the lecture subject matter. Each lecture should aim to be 30 minutes in length.

Week	Instructor	Topic
1	Fitness Coach	A general overview of the benefits of exercise. Exercise do's and don'ts.
2	Weight-loss Coach	Understanding weight-loss. Healthy and sustainable weight-loss. Dangers to avoid.
3	Nutritionist	Importance of healthy eating. Foods to avoid, and or eat in moderation.
4	Lifestyle Coach	Understanding habits, the process of change, and establishing goals.
5	Physician	Comorbidities of overweight and obesity: CVD, hypertension, stroke, diabetes, metabolic syndrome, etc.
6	Behavioral Psychologist/Cognitive Behavioral Counselor	Emotional Health, self-esteem, overcoming negative thought patterns, etc.

Project Evaluation Form

Please answer the questions using the following 5-point scale:

1	2	3	4	5
Not at all helpful	Somewhat helpful	Moderately helpful	Very helpful	Extremely helpful

How helpful were the various aspects of the project:

1. The biometric screening.....1 2 3 4 5

2. The questionnaires and assessments 1 2 3 4 5

3. The goal planning session.....1 2 3 4 5

4. The exercise plan 1 2 3 4 5

5.The initial orientation.....1 2 3 4 5

6. The 40-day emphasis 1 2 3 4 5

7. The support group meetings.....1 2 3 4 5

8. The group exercises 1 2 3 4 5

9. The health lectures 1 2 3 4 5

10. The daily readings.....1 2 3 4 5

11. Exercising 1 2 3 4 5

12. The heart rate monitor.....1 2 3 4 5

13. Rockport 1 mile walking test 1 2 3 4 5

14. Intermittent Fasting.....1 2 3 4 5

15. Abstaining from alcohol 1 2 3 4 5

16. Abstaining from tobacco.....1 2 3 4 5

17. Abstaining from an item of choice.....1 2 3 4 5

18. Drinking water 1 2 3 4 5

19. Having an accountability partner 1 2 3 4 5

20. Having a water bottle 1 2 3 4 5

21. Eating more fruit 1 2 3 4 5

22. Eating more vegetables 1 2 3 4 5

23. The refreshments.....1 2 3 4 5

24. The Mediterranean meal 1 2 3 4 5

25. If you circled a 1, 2, or 3 on any of the questions above, how could we improve?

1	2	3	4	5
Not at all helpful	Somewhat helpful	Moderately helpful	Very helpful	Extremely helpful

Using the same scale, how would you rate the following?

26. Length (90 mins.) of the support group meetings.....1 2 3 4 5

27. If you circled a 1, 2, or 3, what length of time would you suggest for the meetings?

28. Relationships built during the support group meetings ...1 2 3 4 5

29. If you circled a 1, 2, or 3, what could be done to improve the building of meaningful relationships during the support group meetings?

30. What aspect of the support group did you find most helpful and why?

31. What aspect of the support group did you find the least helpful and why?

32. What part of the support group had a negative impact on you and why?

33. Total length (9 weeks) of the program.....1 2 3 4 5

34. If you circled a 1, 2, or 3, what length of time would you suggest for the program?

35. What part of the program had the most positive impact on you and why?

36. What part of the program had the least positive impact on you and why?

37. What part of the program had a negative impact on you and why?

38. If you could improve one aspect of the program, what would it be and why?

39. What one aspect from the program will you continue to practice?

40. What one new thing did you learn from this program?

41. Which health lecture was your favorite and why?

42. Which health lecture was your least favorite and why?

43. Which daily reading impacted you the most and why?

44. Which daily reading impacted you the least and why?

1	2	3	4	5
Not at all helpful	Somewhat helpful	Moderately helpful	Very helpful	Extremely helpful

Using the same scale, how would you rate the following?

45. The facilitator's communication during the week 1 2 3 4 5

46. The importance of communicating with the facilitator throughout the week 1 2 3 4 5

47. If you circled a 1, 2, or 3, how could the facilitator improve his communication with you during the week? (i.e., more text message, emails, phone calls, etc.)

48. How likely are you to recommend the program? (Put a check [✓] mark)

____ Not at all likely _____Somewhat likely ____ Very likely_____ Extremely likely

49. If the program were offered again, how likely are you to recommend the program?

(Put a check [✓] mark)

____ Not at all likely _____Somewhat likely ____ Very likely_____ Extremely likely

50. How well do you feel each aspect of the program was explained and an evidence based reason given for why you were being asked to participate in it? (i.e., heart rate zone, calorie counting, fasting, drinking water, fruits & vegetables, etc.)

51. Do you have any other comments or suggestions about the program?

APPENDIX B

ADVERTISMENT

RESEARCH PARTICIPANTS NEEDED

IMPLEMENTING A FAITH-BASED WEIGHT LOSS PROGRAM
FOR THE RESIDENTS OF THE WESTSIDE OF JACKSONVILLE, FL

Needed: **30** individuals willing to participate in a **40-DAY** (**6 WEEK**) experimental research weight-loss project.

Participants will undergo a **biometric health** screening, including **lipid panel** and **glucose measurements**.

PARTICIPANTS MUST BE BETWEEN THE AGES OF 18 AND 64.

There is no cost for participation.

Register at: https://bit.ly/Jax1Weightloss

This weight-loss research project is being conducted in partial fulfillment for a Doctor of Ministry degree at Andrews University, Berrien Springs, Michigan.

Start Date & Time: Sunday, May 23, 2021 at 2:00 pm

Location: Jacksonville First Seventh-day Adventist Church
7951 Lenox Ave
Jacksonville, FL, 32221

The purpose of this project is to develop, implement, and evaluate a faith-based approach to weight-loss. Participation in this study is completely voluntary, and there will be no penalty or loss of benefits if individuals decide to cancel their participation in this study.

If you have any questions or comments please call the project coordinator: Jonathan Peinado at (904) 479-8615 or email at peinado@andrews.edu

Targeted Zip Codes

32220
32221
32244

APPENDIX C

PROGRAM RESULTS

Participant Demographic Information

Gender	
MALE	**FEMALE**
3	12

Age	
18-19	1
20-29	2
30-39	2
40-49	4
50-59	4
60-64	2

Ethnicity	
African-American	10
Mestizo	2
White	3

Education	
High School/GED	5
Technical/Vocational Training	1
Associate's Degree	3
Bachelor's Degree	5
Master's Degree	1

Employment	
None	4
Full-Time	11

Annual Income	
$19,999 or Less	3
$20,000 - $29,999	1
$30,000 - $39,999	1
$40,000 - $49,999	3
$50,000 - $59,999	1
$70,000 - $79,999	1
$90,000 - $99,999	1
$100,000 or Greater	4

BIOMETRIC SCREENING RESULTS

Raw Data

Biometric Screening 1

NAME	VAX	AGE	SEX	WEIGHT	HEIGHT	BMI
PARTICIPANT						
A	YES	42	F	285	5'8	43.33
B	NO	39	F	237	5'2	43.34
C	NO	41	F	174.8	5'6	28.08
D	NO	54	M	218	5'4	37.42
E	YES	19	F	191	5'7	29.91
F	YES	26	F	294	5'0	57.41
G	NO	43	M	239	6'0	32.41
H	YES	60	M	192	5'9	28.35
I	YES	59	F	132	5'3	23.38
J	YES	44	F	274	5'4	47.03
K	NO	61	F	215	5'8	32.69
L	YES	35	F	217	5'6	35.02
M	NO	57	F	236	5'5	39.27
N	NO	51	F	217	5'3	38.44
O	NO	27	F	188	5'4	32.27

Biometric Screening 1 Continued

NAME	T.CHOL	LDL	HDL	TRIG	RATIO
PARTICIPANT					
A	<100	N/A	41	73	N/A
B	146	95	37	71	2.5
C	127	60	56	60	1.1
D	168	90	62	75	1.4
E	122	63	47	61	1.3
F	122	50	54	89	0.9
G	199	126	38	179	3.3
H	128	54	59	71	0.9
I	198	90	98	51	0.9
J	<100	N/A	29	148	N/A
K	150	78	57	77	1.4
L	160	100	36	121	2.8
M	198	107	74	90	1.4
N	179	92	57	149	1.6
O	149	75	53	104	1.4

Biometric Screening 1 Continued

NAME	BP	HR	GLUCOSE
PARTICIPANT			
A	100/80	N/A	90
B	110/70	68	90
C	120/75	83	98
D	120/90	N/A	99
E	110/60	78	90
F	120/90	74	79
G	130/100	78	99
H	130/80	67	91
I	120/80	69	90
J	110/70	64	100
K	120/70	89	140
L	100/80	74	86
M	160/100	89	90
N	110/80	72	81
O	110/80	77	77

Biometric Screening 2

NAME	VAX	AGE	SEX	WEIGHT	HEIGHT	BMI
PARTICIPANT						
A	YES	42	F	268.6	5'8	40.8
B	NO	39	F	231.4	5'2	42.25
C	NO	41	F	170.4	5'6	27.4
D	YES	54	M	213.6	5'4	36.73
E	YES	19	F	183.6	5'7	29.6
F	YES	26	F		5'0	
G	NO	43	M	238	6'0	32.28
H	YES	60	M	185.6	5'9	27.4
I	YES	59	F	128.6	5'3	22.8
J	YES	44	F	255.8	5'4	32.7
K	NO	61	F	215.41	5'8	32.7
L	YES	35	F	207.2	5'6	33.4
M	NO	57	F	233	5'5	38.8
N	NO	51	F	209.8	5'3	37.2
O	NO	27	F	181.6	5'4	31.2

Biometric Screening 2 Continued

NAME	T.CHOL	LDL	HDL	TRIG	RATIO
PARTICIPANT					
A	133	77	43	67	1.8
B	127	76	29	112	2.6
C	125	55	48	108	1.1
D	149	66	58	120	1.1
E	<100	-	39	<50	-
F					
G	181	121	38	109	3.2
H	158	89	59	50	1.5
I	187	95	78	74	1.2
J	<100	N/A	37	148	N/A
K	154	83	49	113	1.7
L	107	51	32	117	1.6
M	118	46	60	65	0.8
N	111	7	48	281	0.1
O					

Biometric Screening 2 Continued

NAME	BP	HR	GLUCOSE
PARTICIPANT			
A			97
B	105/70	98	93
C	118/82	86	111
D	120/90	87	98
E	114/62	76	86
F			
G	130/100	92	103
H	130/82	65	110
I	138/72	68	99
J	110/80	88	107
K	132/68	88	205
L	106/66	68	96
M	140/100	64	102
N	90/60	63	95
O	102/64	88	

Evaluation Form Results

How helpful were the various aspects of the program:	1- Not at all helpful	2- Somewhat helpful	3- Moderately helpful	4- Very helpful	5- Extremely helpful
The biometric screening				3	9
The questionnaires and assessments				3	9
The goal planning session			1	1	10
The exercise plan				1	11
The initial orientation				1	11
The 40-day emphasis				1	11
The support group meetings			1	1	10
The group exercises				1	11
The health lectures				2	10
The daily readings				3	9
Exercising				1	11
The heart rate monitor				1	11
Rockport 1-mile walking test				5	7
Intermittent fasting			1	3	8
Abstaining from alcohol	1			2	7
Abstaining from tobacco	1			1	9
Abstaining from an item of choice			1	3	8
Drinking water			1	1	10
Having an accountability partner	1			3	8
Having a water bottle			1	1	10
Eating more fruit			1	3	8
Eating more vegetables				3	9
The refreshments				**3**	**9**
The Mediterranean meal				2	9
Length (90 mins) of the support group meetings				2	10
Relationships built during the support group meetings			1	3	7
Total length of the program (9 weeks)				2	8
The facilitator's communication during the week				1	11
The importance of communicating with the facilitator during the week				2	10

25. If you circled a 1, 2, or 3 on any of the questions above, how could we improve?

Answers:

The goal planning session was somewhat helpful. I believe more information about how to plan (set) your goals initially may have been more helpful. The water bottle was nice, just not super helpful for myself.

Since my status is single as far as this study is concerned (I am married) it was difficult to hook up with an accountability partner. We, as participants weren't specifically asked to find a partner, but the study did mention finding one. As far as the support group meetings, we could have done it the way weight watchers and AA conduct their support group with us as participants gathering in groups to discuss how we did for the week.

I am a diabetic sugar stayed high. I couldn't eat 2 meals. I felt tired and sleepy.

I did not have an issue with drinking water (question 18), not on you, it's me. I get so involved with what I am doing, forget to drink.(Need an IV drip).

29. If you circled a 1, 2, or 3, what could be done to improve the building of meaningful relationships during the support group meetings?

Answers:

I believe it would have been nice to have a little more share time at the start.

We should have paired with accountability partners on the first day of the study, i.e., males pair w/male, females w/females.

I did not learn much about all participants. Phone # exchange would have been helpful.

30. What aspect of the support group did you find most helpful and why?

Answers:

All of it. I enjoyed working out together, it really helped motivate me. I also enjoyed the lectures and although a lot I had heard before, I did learn some new things.

Meeting others with the same goal and having the mind set to make a change in our health.

Lectures were very good and informative; being encouraged not to give up if we fail. Devotionals were very good as source of practical encouragement

Being able to call people in the group and talk about the goal that we planned to eat for that day.

The speakers and information

The group exercise sessions. It gave an opportunity to be nurtured by others.

I found the caloric intake very helpful.

Group meetings and accountability partners. This was great because we were able to hear what others were experiencing and learn from each other.

Working together in teams for group exercises

The group exercise

We all were looking for the same thing. And everybody was doing their best.

How much I learned from it and it also makes accountable to keep going.

31. What aspect of the support group did you find the least helpful and why?

Answers:

If I had to say what was the least helpful, it would probably be some of the lectures. Only because some of it was repetitive, but I know for others it may have been all new info.

There were not one thing that I found not to be beneficial. This program is a job start or a beginning process that will produce a healthy or better ways of eating- a total lifestyle change in my eating pattern.

Not being able to connect with an accountability partner and not discussing with each other in group meetings our ups and downs.

Being able to talk to Jonathan about what was going on, how I felt when I went to 2 meals. That didn't work for me.

None

I think all aspects were helpful

N/A

N/A I enjoyed it all

None

Nothing

Talking to people about diets and the pastor messages every week about the project

I guess the nutritionist lesson could've been more informative. She didn't really present something new.

32. What part of the support group had a negative impact on you and why?

Answers:

Nothing had a negative impact

None

Same answer as #31

N/A

None

N/A

N/A

N/A

None

Its [sic] was not any negative impact. Everything was well thought out.

None

Nothing

34. If you circled a 1, 2, or 3, what length of time would you suggest for the program?

Answers:

12 weeks

But I wish we could continue.

35. What part of the program had the most positive impact on you and why?

Answers:

The intermittent fasting has been one of the biggest positive impacts. Not only has it helped reduce my caloric intake, but I feel like I sleep better and my GERD has gone down (way down).

Drinking of the water may a change in me not eating and if I drink water before breakfast or a meal it delayed my hunger pain or regular eating schedule. It made changes in my urine, skin, less bloated, etc. Eating or incorporating more fruit and vegetables in my diet.

The daily challenges had a positive impact on me.

Being able to talk to others

The mini workouts

Tracking my intake, it made me accountable to myself

The readings were great to keep me motivated.

Exercises, especially group exercises.

Understand more about how the sugar in drinks (even natural) is bad for good health.

The daily readings

The lectures

Drinking only water was what helped me first. Know that I'm doing another diet, I can definitely done without problem.

Community

36. What part of the program had the least positive impact on you and why?

Answers:

The caloric tracking was somewhat difficult for me. I would forget, or would struggle to find my food items.

The intermittent fasting was a challenge over 12 hours. But I tried it a few times before the pilot program and during the program. I succeeded a few times.

N/A

The lipid panel. Only because I routinely get this with my primary care doctor.

N/A

N/A

All of it was helpful, equally, but needed more info on the serving sizes. It was at the end that more info was given on the sizes per serving.(1/2 cups cooked = 1 cup raw.

Nothing

Daily readings

Nothing

37. What part of the program had a negative impact on you and why?

Answers:

I can't say anything had a negative impact. Maybe the first workout session because I was so sore afterwards.

It wasn't long enough, but it was all a blessing from God.

N/A

There was no negative impact

N/A

At one point the exercise got to me. Learned that I have to eat after not before and that has helped me not get sick from exercises.

Nothing

None

Nothing

38. If you could improve one aspect of the program, what would it be and why?

Answers:

Again, I would like it if the program was longer, but for most the 40-day timeline is probably less intimidating.

The program didn't need any improvements because the entire group benefitted from it one way or another.

I would have preferred the old fashioned weight scales with the dial. I don't think digital scales give an accurate read. Also, the blood screening machine was not working properly and didn't give me an accurate reading.

The program and organization was great.

N/A

More group meals. Seeing different nutrition (sic) healthy meals prepared different ways.

It was perfect

Meeting more often

New methods to do a daily reading.

To add more sections maybe

39. What one aspect from the program will you continue to practice?

Answers:

Most of it. Exercise 4-5x's weekly, intermittent fasting, somewhat tracking my calories, drinking water, etc.

Prayer I will re-read & study or focus

Intermittent fasting and eating fruits and veggies

Trying to make better food choices.

Mini workouts & calorie counting

Tracking my intake and exercise

Monitoring my caloric intake

All of it.

Daily exercise

I will try my best to continue walking and eating healthier.

Exercises and to drink only water

Water, intermittent fasting, and early dinner

40. What one new thing did you learn from this program?

Answers:

The change in my glycemic index of prepared vs. raw foods.

To focus more on my eating pattern, the amount

That a 12 oz. can contains 9 teaspoons of sugar.

I can't eat 2 meals a day- that didn't work for me- no [sic] your body.
how to count calories

the small amount of protein that you really need.

Exercising at least 3x's a week is all you need.

Proper nutrition, good exercises for at home workouts.

From the nutritionist- learned that 1/2 banana is a serving.

The role of nutrition

to eat only two meals and to realize that two meals is enough for a day. Making fasting every morning and as you know the water thing.

I learn how to drink water. I used to be really bad at it. And how terrible sugary drinks are for you.

41. Which health lecture was your favorite and why?

Answers:

I really enjoyed the doctor who hosted the weight loss programs over many years. He presented good/new information in a concise way and came off as quite knowledgeable.

The lectures were all beneficial and very informative

The lecture with the Mediterranean diet. Because there are good fats that we ??? To consume

All, because all of it was very informative

The ones with the online doctor.

The lecture from the nutritionist because it was very helpful

Nutrition and fitness. Nutrition because I cleared up myths about supplements. Fitness because I signed up for training w/Lee.

It was the zoom sessions #1 & #2 with the doctor. He was a wealth of knowledge

The nutrition lady

Dr. Ronetta Williams the behavioral psychologist

So far, Dr. Adams

42. Which health lecture was your least favorite and why?

Answers:

The nutritionist. I felt like she repeated a lot of the same things the previous doctor had and I believe that more information on portion, food alternatives & how to eat healthy on a budget would have been more helpful for myself.

All beneficial

They were all good.

N/A

None. They were all beneficial

None

All of them was very educating

The last one (the nutritionist)

The nutritionist. I was expecting more

43. Which daily reading impacted you the most and why?

Answers:

I can't remember which day(s) it was, but the story of change that went over several readings was very impactful. One small change can make a difference!

I enjoyed them all and knowing that the Bible contains so much information to build us up from guilt and shame, the way the scriptures were broken down was so encouraging. We are all precious in God's sight. We are just fearfully and wonderfully made.

Growth process

I enjoyed them all. They made you think of health aspect connection and God that I didn't often realize.

The ones that made me reflect on what has caused me problems- in the past that can, if changed, lead to a better future.

Clean and unclean meats and growth as process

All power of habits references

About habits. And how our brain adapts to change.

44. Which daily reading impacted you the least and why?

Answers:

I feel like they were all relevant to our journey and cannot think of any reading that could be left out.

They were all a blessing

N/A

N/A

None

Most of the reading

Not sure. They were all very informative

47. If you circled a 1, 2, or 3, how could the facilitator improve his communication with you during the week? (i.e., more text message, emails, phone calls, etc.)

Answers:

I think Pastor did a great job with communicating and answering questions

None- perfect

N/A

50.How well do you feel each aspect of the program was explained and an evidence based reason given for why you were being asked to participate in it? (i.e., heart rate zone, calorie counting, fasting, drinking water, fruits & vegetables, etc.)

Answers:

Everything was explained very well. I appreciate that the facilitator was able to share his research and findings.

It was explained well. I need to make better preparation in my meal planning. The eating of more vegetables & fruit and eating less ??? Foods. Heart rate zones, fasting, water intake, exercising, eating less have taught me that managing weight has to be done.

It was explained well.

I'm thankful for this program it did help me. My weight went up but by the time the 40 days was over I lost the weight I gained.

It was well explained

It was explained very well with the injection of the lectures. Spot on.

I feel that every aspect of the program was explained very well.

Very good and I am pleased with what I have accomplished & learned

Great! One thing could have had more info was the serving size of fruits and veggies.

I thought everything was well thought out and put together

I understood a lot of what was explained before and I felt totally comfortable doing and using everything that was asked.

I feel good about it and understood the benefits of all expects of what was thought in the program

51. Do you have any other comments or suggestions about the program?

Answers:

I really enjoyed it and am hoping that I will continue to implement these changes.

Words cannot express my deep appreciation for Pastor Jonathan and the pilot program. Thank you and may God bless you and your lovely family

Let's do it again. Thank you!

Overall I truly enjoyed the program and will miss it.

Thank you for the opportunity and please let me know if you do a follow up program.

The communication was so important. You keep me on track. Please continue the same things if it is offered again. Only change would be to suggest participants exchange #'s with each other members.

Let's do it again.

No

No

APPENDIX D

40-DAY DEVOTIONAL READINGS

Overview and Sample

Week 1 Introduction	
Day	Topic
1	Why 40-days?*
2	Change
3	Clean Slate
4	Fasting
5	Trial & Testing*
6	The Power of Choice
7	Body Temple

Week 2 Health Principles	
Day	Topic
8	Temperance*
9	Fruits & Vegetables
10	Exercise*
11	Fats
12	Water*
13	Cravings
14	Hardship/Pain

Week 3 Mental Toughness	
Day	Topic
15	Failure*
16	Persistence & Perseverance
17	Strength*
18	Hope
19	Change of Palate*
20	Accountability
21	Positive Thinking

Week 4 Habits & Change	
Day	Topic
22	Cognitive Behavioral Therapy*
23	Goals*
24	God's Plan
25	Lisa Allen*
26	Lisa's Story- Part I
27	Lisa's Story- Part II*
28	Lisa's Story- Part III

Week 5 Habits & Change	
Day	Topic
29	How Habits are Formed*
30	Cue, Routine, and Rewards*
31	Cravings- Part II
32	Building New Habits*
33	Faith
34	Habit Change*
35	Self-Image

Week 6 Emotional Health	
Day	Topic
36	Understanding Emotions*
37	Understanding Shame*
38	Positive Emotions
39	Growth as Process*
40	Where do we go from here?

Bonus Content	
Day	Topic
41	Clean & Unclean Meats*
42	Step 1: Heightened Awareness
43	Step 2: Confession*
44	Step 3: Action Plan*
45	The Rest of the Story
46	Neuroplasticity Part 1*
47	Neuroplasticity Part 2
48	Fasting Revisited*
49	Asking for God's Help
50	Waiting on God

* indicates exercise day

Goals for Week 5

◊ Exercise 4 times a week, 30 minutes each session (Day 29, 30, 32, 34)

◊ Connect with your accountability partner (Day 20)

◊ Continue to be mindful about your cues, routines, and rewards

◊ Keep drinking your water

◊ Eat less sugary foods. The body turns excess sugars into fat

◊ Remember that animal protein foods are high in fat

◊ Select more complex carbohydrates (Fruits, veggies, grains, and legumes)

◊ Select calorie dilute foods rather than calorically dense foods

◊ Select low-glycemic index foods

Day 31 Week 5
Name:_____ Date:_____

Cravings- Part II

"For I have the desire to do what is good, but I can't. I want to do what is good, but I don't. I don't want to do what is wrong, but I do it anyway." Romans 7:18-19

On day 13 we took a look at cravings, and we're going to look at them again today but specifically regarding their role in the habit loop. A craving is the anticipation of the reward. When a smoker sees a cue- say, a pack of Marlboros- their brain starts anticipating a hit of nicotine. That anticipation is the craving. When a computer or smart phone chimes, the brain starts anticipating the momentary distraction that opening an email provides (we deceive ourselves into thinking that checking that message or email is a sign of productivity when it's not). Even the food at fast food restaurants have been engineered to create craving and deliver immediate rewards. The fries, for instance, are designed to begin disintegrating the moment they hit your tongue, in order to deliver a hit of salt and grease as fast as possible, causing your pleasure centers to light up and your brain to lock in the pattern.

Scientists have studied the brains of alcoholics, smokers, and overeaters and have measured how their neurology- the structures of their brains and the flow of neurochemicals inside their skulls- changes as their cravings become ingrained. Particularly strong habits produce addiction-like reactions so that wanting evolves into obsessive cravings that can force our brains into autopilot, even in the face of strong disincentives, including loss of reputation, job, home, and family.

However, cravings don't have complete authority over us. There are mechanisms that can help us ignore temptations. But to overpower a habit, we must recognize which craving is driving the behavior.

My Decision: I want to have greater awareness of which cravings are driving my behavior. _____

Daily Challenge: (Put a check mark next to completed challenges.)

- ◊ Today I drank _____ oz. of water
- ◊ Today I abstained from: _____
- ◊ Today I practiced Intermittent Fasting
- ◊ Today I ate _____ meals and _____ snacks
- ◊ Today I ate my daily portion of fruits (2 cups) and vegetables (4 cups)

Reflection: Can you identify a craving and how it drives your behavior? Share your answer with a member from your group.

_____

_____

_____

_____

_____

_____

_____

_____

APPENDIX E

DUVAL COUNTY PILOT WEIGHT LOSS PROGRAM

June 1, 2007

Prepared by Julie Schafer and Stephanie Germann

I. Goals and Objectives

a. Develop a comprehensive weight management and health improvement "pilot" program for eligible employees who are obese and covered under the health plan.

II. **Program Overview:** A voluntary, comprehensive twelve (12) week program, with follow up coaching, will be developed that includes:

	Assessment	**Education**	**Coaching**	**Action**
Lifestyle Counseling	Initial, after 12 weeks, and Month 4 & 6	Weekly Articles	Weekly Meeting	Awareness of triggers
Eating and Nutrition	Initial, after 12 weeks, and Month 4 & 6	Weekly Articles	Weekly Check In	Daily tracking
Physical Activity	Initial, after 12 weeks, and Month 4 & 6	Weekly Articles	Weekly Check In	Daily exercise

a. Critical Lifestyle Adjustments
    i. Stress and coping skill assessment and education
    ii. Weekly lifestyle counseling
    iii. Daily tracking of behavioral triggers
b. Eating and Nutrition
    i. Education
    ii. Weekly coaching and progress assessment
    iii. Daily tracking of consumption
c. Exercise
    i. Assessment and Education
    ii. Weekly coaching and progress assessment
    iii. Customized self-paced physical workouts
        1. 12 week membership to Brooks Health and Fitness

2. Walking Program (Brooks or at home)
3. Water Aerobics (Brooks or at home)

d. Physician involvement
    i. Brooks notification to participant's primary physician
    ii. Progress report to physician
e. Weekly Weigh ins

III. Eligibility for Pilot

a. BMI over 40 or BMI over 35 with a health risk factor such as diabetes, hypertension or high cholesterol.
b. An employee of DCPS covered by the health plan.
c. Medically cleared by Physician

IV. Determination of Volunteers

a. Announce pilot in Newsletter and ask for volunteers
b. Review responses received and determine individuals who meet the eligibility criteria
c. Select up to 20 volunteers on a first in basis

V. Participant Commitment

a. Attend an orientation session that will last approximately 2 hours and include a discussion of the program components and expectations, a tour of the Brooks facility, and assistance in completing the registration process. Participants will register to attend one of the following orientation sessions by calling Julie Schafer at 904-854-2011:
    Thursday 5/31 at 2:00 p.m. or 7:30 p.m.
    Friday 6/1 at 1:00 p.m.
    Monday 6/4 at 10:00 a.m.
b. Commit to participation in the program for 12 consecutive weeks from June 1 through August 31 and 2 follow up assessments during the next 3 months
c. Complete the pre-program individual assessment to include:
    i. Comprehensive fitness evaluation
    ii. Nutrition analysis
    iii. Readiness for change
    iv. Biometric screenings for lipids and glucose
d. Read all educational materials
e. Meet with the health educator each week for 12 weeks and then once each quarter for up to one year
f. Meet with the exercise specialist in Weeks 1, 2, and 12
g. Meet with the registered dietitian in Weeks 2, 4, 8, and 11
h. Meet with the lifestyle counselor for the following sessions:
    i. Individual sessions in Weeks 1 and 12
    ii. Mindful Eating Group sessions in Weeks 2 through 11

iii. Up to 3 individual sessions are available as needed but are not mandatory

i. Execute the individually customized self-paced exercise workout plan
j. Track food intake daily
k. Track stress points and coping issues that impact results
l. Complete a comprehensive individual assessment in Week 12
m. Evaluate the pilot program and make recommendations on whether the program needs to be continued and if so, where modifications need to be made

VI. Program Success

a. Individual success will be determined by the following:
    i. Attendance at all weekly meetings with program specialists and counselors
    ii. An improvement of at least 5% in Overall Fitness
b. Pilot success will be determined by having 75% of the participants achieving individual success
c. Success after one year will be determined by having 75% of the pilot participants maintaining their 12 week Overall Fitness score

VII. Pilot Critical Review

a. Program evaluation conducted by Brooks and CCW
b. Focus Group meeting to discuss critical factors of the program and timing and frequency of program components.

DCPS Weight Management Program
Weight

Client #	EVAL DATE	AGE	WEEK 1	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	Δ WEIGHT
1	6/4/07	37	256.8	256.8	252.2	251.6	245.4	243.2	240.0	232.0	233.8	229.6	228.6	-28.2
2	6/5/07	53	235.4	236.8	236.2	235.2	234.4							
3	6/6/07	33	281.2	280.2	277.8	277.2	277.6	275.6	274.4	270.4	271.4	269.8	268.6	-12.6
4	6/6/07	53	235.4	233.0	234.4		229.0	227.8	225.8	227.0	226.0	226.8	221.2	-14.2
5	6/5/07	50	260.0	255.4	254.6	250.4	246.8	246.4	241.6		238.4		234.0	-26.0
6	6/5/07	45	217.4	211.0	207.4	207.2	205.2		199.2	198.2	197.6		194.0	-23.4
7	6/7/07	35	190.0		188.2	185.8			184.2	184.4	183.8		180.8	-9.2
8	6/11/07	33	224.2	222.6	220.2	219.2								
9	6/6/07	55	271.2	270.8		270.8								
10	6/7/07	28	211.2	207.0	205.8	203.8			203.2	198.2	198.4	196.0	196.8	-14.4
11	6/8/07	42	274.8	271.8	268.0		263.8	261.4	261.2	258.6	260.2	259.0	257.8	-17.0
12	6/5/07	55	260.4	263.2	258.4		258.8	255.0	252.2	250.6	249.6	248.2	245.2	-15.2
13	6/4/07	52	226.0	226.4	221.4	221.0	217.6	216.8	216.4	212.6	212.8		207.8	-18.2
14	6/4/07	53	226.4		223.4		222.0	221.4	216.0	215.4		215.4	215.4	-11.0
15	6/5/07	41	234.8		230.6	227.4	225.0	226.8	225.8		222.4	222.0	219.6	-15.2
16	6/8/07	42	253.8	256.4		257.0		254.0						
17	6/7/07	24	231.6	226.4	225.2	221.0	217.6	211.0	208.8	210.4			209.0	-22.6
18	6/8/07	27	283.0											
19	6/9/07	39	272.4	272.4	272.0	278.6	276.6	271.6	276.4	276.4	273.2	275.8	274.8	2.4
20	6/8/07	32	255.6	261.6		260.8	257.8	259.8		262.8	259.0	258.6		
21	6/7/07	50	243.0	236.0	234.0	230.4	230.8	229.8	226.0	224.2	222.0	219.4	219.2	-23.8

AVERAGE	-16.6
TOTAL	-248.6

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Married: August 7, 2005 to Irma Michailova

Children: Leiv (2016 *Deceased*), Lian Yves (2018), Emil (2020)

Background: I was raised in Houston, TX and am a second generation Hispanic American. My father is from Colombia and my mother is from Honduras. I am fluent in English and Spanish. I was baptized at the age of 10 and surrendered my life to God fully at the age of 15.

Education:

2015-2022	Doctor of Ministry Degree in Missional Church from the Seventh-day Adventist Theological Seminary at Andrews University
2006-2008	Master of Divinity Degree with an emphasis in Historical Theology from the Seventh-day Adventist Theological Seminary at Andrews University
2004-2006	Bachelor of Arts Degree in Theology with a minor in Practical Theology and Biblical Languages from Southern Adventist University
2000-2003	College of Evangelism and Canvassing (Griggs University)

Ordained:

2012-	Ordained by and currently hold ministerial credentials from the Florida Conference of Seventh-day Adventists

Experience:

2022-	Pastor of the New Port Richey Seventh-day Adventist Church (Florida)
2011-2021	Pastor of the Jacksonville First Seventh-day Adventist Church and Argyle Church Plant (Florida)
2009-2011	Pastor of the Inverness and Bushnell Seventh-day Adventist Churches (Florida)