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Building Biblically Founded Faith and Values through a Campus-Wide Healthy Lifestyle Project

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Abstract

Essential to Seventh-day Adventist education is the development and strengthening of a biblically founded faith as a result of the student's program of study and extracurricular activities. Much of Jesus' ministry involved teaching. The goal of His teaching was to clearly reveal God's love to a fallen world (John 17:6, 23 New International Version). At the end of His ministry, Jesus commissioned His followers to "preach the gospel" (Mark 16:15) and to "make disciples of all nations" (Matthew 28:19). As Seventh-day Adventist educators, we are commissioned by God to help our students reach not just career goals, but goals set forth in the Bible for mental, physical, social, and spiritual health and wholeness. "To restore in man the image of his Maker . . . to promote the development of body, mind, and soul, that the divine purpose in his creation might be realized . . . is the object of education" (White, 1952). The intent of this paper is to explore models and frameworks used in nursing which connect professional learning and biblical principles. The paper examines the dynamics of interdisciplinary campus-wide learning activities specifically focusing on two visionary lifestyle transformation programs. The projects created opportunities for faculty and students to learn together and build faith in unique ways. Data on the relationship between the students' participation in the dietary challenge and their spiritual experience are presented. Creativity and intentionality in use of extracurricular activities as means of building relationships, strengthening beliefs, and nurturing positive habits based on scientific and biblical principles are discussed.

Key Words: Biblically founded faith, Seventh-day Adventist education, mental health, physical health, social health, spiritual health, wholeness, divine purpose, biblical principles, professional learning, learning activities, faith building, dietary challenge, spiritual experience, creativity, intentionality, extracurricular activities, building relationships, strengthening beliefs, positive habits

Building Biblically Founded Faith and Values through a Campus-Wide Healthy Lifestyle Project

Development of a biblically founded faith is an essential element of Seventh-day Adventist higher education through a student's program of study and extracurricular activities. "The Greek philosopher Aristotle once said, 'Educating the mind without educating the heart is no education at all.' For Seventh-day Adventists, education extends even further—it reaches the soul" ("Teaching a whole life," n.d.). Adventist education seeks to address God's ideal and original plan for human life and society – to integrate Godly beliefs, understandings, and practices into every facet of life.

An examination of the mission and philosophy of Adventist institutions illustrates the value of such biblically founded, Christ-centered learning. In the guiding principles for Southern Adventist University's (Southern's) graduate programs, one reads, "the quest for truth relates to matters of Christian faith. ... Christian education combines faith and learning, understanding and practice, erudition and service" (Southern Adventist University, 2014). The Andrews University website prominently displays the following statement, affirming faith as an essential element to its learning environment and as preparation for life work: "You'll discover an active and supportive Christ-centered community.... [C]ommitted to helping you affirm your faith in God in the classroom and beyond, while helping you best understand His plans for your life" ("Affirm faith," n.d.). Similarly, Loma Linda University notes a mission of "furthering the healing and teaching ministry of Jesus Christ to 'make man whole'" by fostering "the integrated development of the intellectual, physical, social, and spiritual dimensions" and encouraging "a personal Christian faith that permeates" the lives of its students ("Mission," n.d.).

A biblically founded education seeks to facilitate the divine purpose of education. When accomplished, a three-fold benefit is achieved: a) personal wellness and wholeness which includes mental, physical, social, and spiritual development; b) the ability to better serve and represent God to others in this world; and, c) an enhanced and saving relationship with God. Scripture clearly notes the importance of our health to God in I Corinthians 3:16-17 and 6:19-20, calling our bodies a "temple" and noting that God wants to dwell with us there; that He bought us with a price—the blood of Jesus; that damage to the body temple is offensive to God and that those who destroy the temple and reject the costly purchase of mankind through the death of Jesus on the cross will be destroyed by God. We are told that "whether you eat or drink or whatever you do, do it all for the glory of God" (I Corinthians

10:31 New International Version). Paul states that discipline and control of the body and personal life are important—not just in preaching and service to others, but for personal benefit (I Corinthians 9:27), and as a way to worship God (Romans 12:1). Biblically founded Christian education includes these vital elements and identifies a Godly purpose and rationale for daily choices and activities.

This is in contrast to secular education, which focuses on vocational and professional education within the context of modern humanistic philosophical frameworks. Harvard University, for example, states that the institution “is devoted to excellence in teaching, learning, and research, and to developing leaders in many disciplines who make a difference globally. Harvard faculty are engaged with teaching and research to push the boundaries of human knowledge” (“About Harvard,” n.d.). Most secular institutions strive for excellence in teaching, learning, and research. Many address community involvement and service. Global concerns, including social, environmental, political, economic, and health concerns, are often addressed. Ethical and social responsibilities are mentioned, but as expected at such secular institutions, without the framework of a Christian worldview.

While the contrast in mission and philosophy is obvious, the question is: How does an Adventist institution carry out its mission? What are some practical and meaningful approaches for achieving integration of faith and learning? How can these issues be addressed within the nursing discipline, other disciplines, and campus-wide?

Biblical Foundations of Education

The first two chapters of Genesis describe the biblical account of God’s Creation of a perfect world and the placement of human life, created in His image with the ability to think and act, to care for and rule over other elements of created life, and to use the power of choice for good or evil. Tragically, we don’t have to read very far in the Bible before we are introduced to sin and its effect. Accompanying this sad downfall, in the same chapter of Genesis, is God’s plan for redemption of fallen man. The rest of the Bible can be read as the unfolding of the consequences of sin and of God’s relentless efforts to heal and restore man to His original design. The theme of restoration can be seen in stories such as the Flood, the Exodus, God’s covenant with Abraham, the rebuilding of

the Temple, Jesus' healing miracles, and the New Earth. In these stories we meet God as the Master Restorer—the God who is always at work in our lives to heal and restore us physically, mentally, emotionally, and spiritually.

Mankind is invited to participate in the restoration process through the power of choice: “This day I call the heavens and the earth as witnesses against you that I have set before you life and death, blessings and curses. Now choose life, so that you and your children may live” (Deuteronomy 30:19). God spells out the consequences of this choice in Exodus 15:26, “If you listen carefully to the Lord your God and do what is right in His eyes, if you pay attention to His commands and keep all His decrees, I will not bring on you any of the diseases I brought on the Egyptians, for I am the Lord, who heals you.” Man's continued power of choice and its influence on personal and final destiny is evident in the last chapter of the Bible where Jesus says, “Look, I am coming soon! My reward is with Me, and I will give to each person according to what they have done.... Blessed are those who wash their robes, that they may have the right to the tree of life and may go through the gates into the city” (Revelation 22:12, 14). God's plan for judgment and final restoration of man is evident in this passage.

Believing that “the fear of the Lord is the beginning of wisdom, and the knowledge of the Holy One is understanding” (Proverbs 9:10), Adventist educators seek to create understanding of this loving God and His plan to restore mankind. Ellen White wrote that “a knowledge of God is the foundation of all true education” (White, 1949, p. 64.3) and that true education “prepares the student for the joy of service in this world and for the higher joy of wider service in the world to come” (White, 1952, p. 13.1). Adventist educators teach doctrine and biblical truths, but more importantly, they assist students to integrate biblical teachings and guiding principles into their lives in meaningful ways. Beyond career readiness, they seek to prepare students to know and understand the will of God in their lives, to choose life, to serve God, and to care for others in the ways that Jesus did. “To restore in man the image of his Maker, ... to promote the development of body, mind, and soul, that the divine purpose in his creation might be realized ... is the object of education” (White, 1952, p. 15.2).

This object of education espoused by Adventists is founded on the pattern of Jesus when He was here on earth. The goal of Jesus' teaching was to clearly reveal God and His love to a fallen world: “I have revealed You to those whom You gave Me. ... Then the world will know that You sent Me and have loved them even as You have loved Me” (John 17:6, 23). He trained His disciples through close contact, everyday life examples, work, and a

variety of learning experiences. The disciples learned as they observed Jesus in quiet devotion, travel, work, play, comfort and hardship, interaction with family, friends, church, government, and enemies (White, 1952). These were lessons taught, not in isolation from each other and from the world, but while meeting the everyday demands of life and dealing with a sin-sick world and with church leaders whose minds and practices were clouded by darkness, misunderstanding, and legalism (Mark 7:6-23). Jesus used day-to-day experiences and parables for illustration, enabling His followers to see the relevance of God and scripture in their daily lives. He taught them His perfect plan for human life using God's creation and written word as His textbooks. He made it clear that it was not of human power that they would learn and know, but that "they will all be taught by God" (John 6:45). His desire was that they would "know the truth, and the truth will set you free" (John 8:32). Above all, He desired their salvation (John 3:16-18; 5:24; 6:39-40, 47; 11:25) and eternal, full, abundant life (John 10:10). At the end of His ministry, Jesus commissioned His followers to continue His work, to "preach the gospel" (Mark 16:15), and to "make disciples of all nations" (Matthew 28:19).

Nursing Models and Frameworks

The discipline of nursing is one in which the study and discussion of biblical Christian and Adventist values should be natural. Nurses care for patients across the lifespan: in time of birth and death; through sickness and health; and in times of crisis where it is common for one to question personal beliefs and values—and sometimes the existence of God. Nursing involves interaction with patient systems and their environment(s) to assist in retaining, attaining and maintaining their highest level of wellness (Southern Adventist University, 2014b). Nursing education taught from a biblical Christian perspective empowers students to follow Christ's example of providing holistic caring service that links the patient with God and His plan for their restoration.

Nursing uses models and frameworks that capture the important concepts to its science and professional practice. These models define health, illness, nursing, persons/patients/clients, and environments as well as other concepts. Many models and theoretical frameworks exist, representing a variety of perspectives about nursing. These models are primarily secular in nature, constructed mostly by individuals without intent to provide a biblical perspective of nursing. Some, however, lend themselves well to interpretation within a biblical Christian context and uniquely Seventh-day Adventist biblical worldview. The models and frameworks utilized in Southern's School

of Nursing include the Neuman Systems Model (Neuman, 2005) and the CREATION Health Model (CREATION, 2011).

Neuman Systems Model (NSM)

The Neuman Systems Model (see Figure 1) was developed by Betty Neuman in the early 1970s as a model for teaching a whole-person approach to dealing with health problems that nurses encounter in their patients (Neuman, 2005). Individuals are viewed as complex multidimensional beings consisting of physiological, psychological, socio-cultural, spiritual, and developmental subsystems. This core structure is surrounded by concentric rings of barriers (the flexible line of defense, the normal line of defense, and the lines of resistance) that exist to provide a buffer of protection from stressors that can negatively impact well-being. Nurses assess the whole person, the environments impacting the person, and the person's response to stressors. It is the goal of nursing to help persons reduce stressors, achieve stability, and move toward optimal wellness.

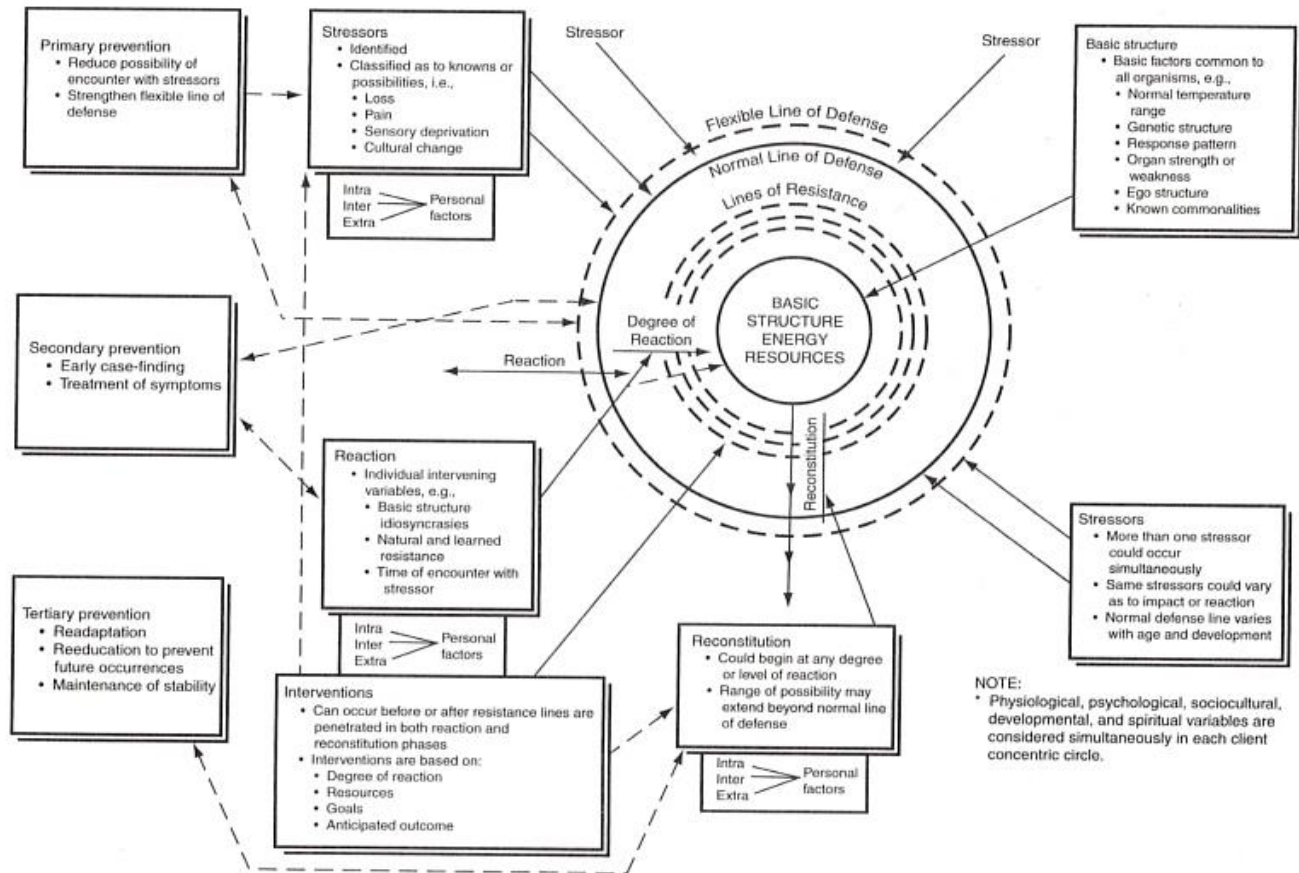


Figure 1. The Neuman Systems Model. Original diagram ©1970 by Betty Neuman.

It is relatively easy to see how the NSM is congruent with a biblical Christian and Adventist perspective. The model lends itself to discussion of the perfect state in which God created us and the complexity of our beings as living, thinking, feeling, relating, growing, and developing humans. The relationship between the spiritual, mental, and physical impact of sin on mankind is noted in the study of developmental disorders, disease, and socio-cultural factors in health care. Environmental influences for good and for evil are considered. Students are encouraged to follow Jesus' example of teaching and healing, extending His restoring ministry to those within their influence today. Because it is used for all patient care decisions, nursing students at Southern interact repeatedly with the Neuman Systems Model.

The CREATION Health Model

One of the nursing role components taught across all levels of nursing curriculum at Southern is that of health promotion—educating and empowering individuals, families, and communities to make lifestyle choices that prevent disease, improve well-being, and actualize health potential. A primary framework for teaching health promotion concepts is the CREATION Health model (see Figure 2). Although not specific to nursing, CREATION Health “is a lifestyle transformation curriculum designed with a holistic approach to mental, physical and spiritual well-being” (“Welcome,” n.d.).



Figure 2. CREATION Health Model, © 2011 by Adventist Health System (CREATION Health is a whole-person wellness program and philosophy.)

Based on a formula for healthy living found in the Genesis story of Creation, this model includes eight principles for experiencing whole person health. Represented by each letter of the word creation, the model includes: C – Choice; R – Rest; E – Environment; A – Activity; T – Trust; I – Interpersonal relationships; O – Outlook;

and N – Nutrition. These components offer yet another “lens” for the nurse to assess, evaluate, and assist patients to move from disease toward wellness.

Each of the CREATION Health concepts is biblically based and scientifically supported (Creation, 2011), and provides opportunity for rich discussions about Christian and uniquely Adventist beliefs. Genesis 2:16-17 notes the choice given Adam and Eve at Creation about eating from all trees in their garden home but one, the tree of the knowledge of good and evil. Because of a bad choice on their part, we live in a world where the knowledge of good and evil is very apparent. Each student—and each person they care for—is daily faced with multiple choices for good or evil. Their choices are not only self-impacting, but often have far-reaching influence. Confronting this daily in one’s profession is sobering and thought provoking. What influence for good or evil can a nurse who uses alcohol or smokes cigarettes have on persons under his care? What message about health does the morbidly obese nurse provide for her patients?

It is certainly important to educate nurses that too little rest is a stressor and contributes to immune compromise and diseases such as hypertension, diabetes, or coronary artery disease. This knowledge can be shared with patients to help them reduce risks, prevent illness, and restore health. But more importantly, in the context of biblical foundations of faith and learning, is to lead the student to understand God’s plan for a weekly rest, given at Creation. “By the seventh day God had finished the work He had been doing; so on the seventh day He rested from all His work. And God blessed the seventh day and made it holy” (Genesis 2:2-3).

Further examples of the use of the CREATION Health model and its application within nursing education could be made, illustrating the practical relationship between biblical Christian principles and the everyday work of the nurse. The model is a comprehensive, biblical, and uniquely Adventist model for teaching a broad range of health principles. Nurses are able to use this model to address the whole person, though often beginning with just one important element that best addresses a priority patient need, or an aspect of health where the patient is most willing, interested and motivated to learn and to make change. Intentional use of the CREATION Health model in the nursing role has a two-way impact, creating a spiritual influence that can be transformative for both the nurse (or nursing student) and the patient.

Transformative Learning Experiences

The concept of transformative learning is biblically founded and critical to Adventist higher education. Although Jesus didn't use the term "transformation," it was the principle underlying all His activities. Paul states of Jesus' work in 2 Corinthians 5:17, "if anyone is in Christ, he is a new creation; the old has gone, the new has come." In Romans 12:2 we are cautioned to "not conform to the pattern of this world, but be transformed by the renewing of your mind. Then you will be able to test and approve what God's will is – His good, pleasing, and perfect will." The imparting and acquisition of knowledge goes beyond that of intellectual information. In the biblical context, it changes the way you think and act with the ultimate goal of bringing the mind to an understanding of God's will for every part of one's life.

Modern educational theories, such as that of Kolb (1984), address transformative learning, noting that true knowledge is created through experience. To know is not to be intellectually informed about some abstract principle, but to apprehend and experience reality. Knowledge is not the possession of information, but rather its exercise or actualization. Transformative learning, therefore, is a different type of learning involving "reflectively transforming the beliefs, attitudes, opinions, and emotional reactions that constitute our meaning schemes" (Mezirow, 1991, p. 223). In the biblical context this is done under the influence of the Holy Spirit to transform the heart and develop a Christ-like character (Psalms 51:10; Ezekiel 36:26; Ephesians 4:23).

The concept of transformative learning may also be observed in the different words used in the New Testament Greek for "know" (Strong, 2007). For example, the word *epistamai*, from which we get the English word epistemology, familiar to educators, was used in a more general sense for an awareness of a situation (Mounce, 2006). Another word, *syniēmi*, meant knowledge gained through the five senses (Strong, 2007). The Greek used the word *oida*, which was derived from "I have seen," to indicate perception, or knowledge gained by seeing with the mind's eye (Strong, 2007). The concept of transformative learning can best be seen in the words *ginōskō* and *epiginōskō*. The word *ginōskō* had several nuances, but was used most commonly for an intimate knowledge based on personal experience or relationship (Mounce, 2006). It was even used as a Jewish idiom for sexual intercourse between a man and a woman (Matthew 1:25). *Ginōskō* is the word Jesus used in John 17:3: "Now this is eternal life: that they know You, the only true God, and Jesus Christ, whom You have sent." The word *epiginōskō* conveyed an even deeper sense of knowing, such as to be fully acquainted or to have a thorough understanding

(Mounce, 2006). This can be observed in 1 Corinthians 13:12: “Now I know (*ginōskō*) in part; then I shall know fully (*epiginōskō*), even as I am fully known.”

Religion and spirituality are vital to Adventist education, but are easily compartmentalized into religion courses, worship thoughts offered at the start of class, and community convocations and worship services. Likewise, biblical foundations of faith may be compartmentalized to models and theoretical frameworks used within a program, such as the Neuman Systems Model or the CREATION Health model. Taking classes, learning to use biblically founded models and principles in practice, and attending religious services may be transformative for some students, but not for others. Like the old adage, “you can lead a horse to water, but you can’t make him drink,” it holds true that external forces are insufficient to create transformative learning.

To help students truly know, perceive, experience, and incorporate Godly principles, characteristics, and actions in their lives and professions – to be transformed in the biblical sense – is the ultimate challenge of Adventist higher education. It is in actuality the only thing that separates Christian education from secular education. Tolliver and Tisdell (2006) contend that “transformative learning is best facilitated through engaging multiple dimensions of being, including the rational, affective, spiritual, imaginative, somatic, and sociocultural domains through relevant content and experiences” (p. 38). One approach for creating transformative learning experiences that are biblically founded and faith building is through campus-wide healthy lifestyle projects.

Campus-wide Healthy Lifestyle Projects

Interdepartmental, interdisciplinary courses and activities have been studied as a means of enriching higher educational experiences for students, and even as a positive means for student retention (White & Nitkin, 2014). These types of learning experiences may be created as part of a required general education component of the curriculum, as part of selected majors, or even as extracurricular activities. Although implementation of such curricular innovations require considerable thought, planning, resources, and pushing past barriers (Kezar & Elrod, 2012), the potential impact on student learning is great. Two campus-wide healthy lifestyle projects implemented on Southern’s campus in 2013 and 2014 offer excellent examples of transformative learning experiences that integrate faith and learning.

The Daniel Fast

In the winter semester of 2013, the Southern Collegiate Adventists for Better Living (CABL) ministry piloted a 28-day *Daniel Fast*. This initiative combined spiritual commitment with a focus on nutrition that is entirely plant-based and unprocessed. The guidelines for the *Daniel Fast* were derived from the biblical story of Daniel, who “resolved not to defile himself with the royal food and wine, and he asked the chief official for permission not to defile himself this way” (Daniel 1:8). After a 10-day test of eating only “pulse” (food grown from seed) and drinking water, Daniel and his friends were healthier than the other young men who had eaten from the king’s table. Later in his life, while seeking God’s will for Israel, Daniel “ate no choice food; no meat or wine touched [his] lips” (Daniel 10:2-3).

The details of the Southern *Daniel Fast* diet were closely modeled after the principles set forth in Gregory’s 2010 book, *The Daniel Fast*. Students were allowed unlimited intake of nutrient-dense, whole plant foods, while fasting from refined foods. Selection of these foods was facilitated by choices offered by campus eateries. Additionally, students were encouraged to select a spiritual purpose for their fast. Daily emails, weekly meetings, and a Facebook page were utilized to keep students motivated and to build community among participants. The fast culminated in an agape feast that focused on celebration of what God had done in their lives. T-shirts were given to commemorate their experience.

Research. A senior Health Science major engaged 30 of the female participants in a pilot study to investigate the spiritual, mental, and physical effects of the Southern *Daniel Fast*. As a result of the fast, research participants experienced moderate weight loss, increased calories burned at rest, increased fiber consumption, decreased dietary sodium and cholesterol intake, and various changes in the percentage of fat burned at rest (Hobbs, 2013). In addition, the majority reported experiencing spiritual growth, improved mental clarity, and enhanced academic performance. Hobbs concluded that, “ultimately, the observations reinforced the connection between spiritual, mental, and physical health and showed that each dimension can be positively impacted by spiritually-based nutrition choices” (Hobbs, 2013, p. 3).

Spiritual experience. At the completion of the 28-day fast, participants were encouraged to write a one-page reflection essay of their spiritual journey in relationship with God throughout the experience. Although no formal qualitative research study was done, several major themes were identified in the essays. A number of

students recognized the positive role of social support in making lifestyle change: *“Later that day I ran into all kinds of people who were also doing the Fast, and that gave me courage. I could do this.” “The Monday morning meetings really helped me. It was so encouraging to hear other people’s stories and to know that we are all on this journey together.”* Others noted the benefit of the daily devotionals: *“The morning devotions ... gave me new perspectives on old Bible verses and concepts. These inspiring devotions equipped me with biblical knowledge that I wanted to share with my friends who were not on the Fast. This opened the door for other, spiritually-based conversations between friends and myself.”*

Many of the students acknowledged a better understanding of the relationship between faith and health. *“This fast has truly changed my life spiritually, physically, and mentally.” “I have learned more about myself, come to new realizations about my diet choices, and overall, grown in my walk with the Lord. And I call that a huge success.” “This past month has truly been a blessing by which I have improved my health and grown much closer to God through time with Him, and I intend on continuing the growth even after this is over.”*

Another major theme was that of a deepening of the student’s walk with God: *“My spiritual life definitely improved during the Daniel Fast. I found myself being able to do morning devotions longer and I also found myself talking to God more often.” “I began talking to God throughout the day to help me stay strong; to resist the temptation of eating the other foods around me. I really felt God by my side.” “Even though I already had a pretty steady devotional life before this, I felt a lot more connected with God during the fast and after. Health and life is holistic, I know that for sure now.”*

One student wrote, *“I am fortunate to attend a school that supports, encourages, and prepares students for the Kingdom—in more ways than one!”* In fact, 100% of those participating in the Southern *Daniel Fast* indicated that they were either satisfied or neutral regarding their experience. Additionally, 88% said they would repeat the fast and 98% said they would recommend it to a friend. This successful experience of the *Daniel Fast* was the stimulus for the development of the *Zoe Transformation Challenge* the following year.

Zoe Transformation Challenge

The *Zoe Transformation Challenge*, implemented on the campus of Southern during the winter semester of 2014, is another example of a campus-wide healthy lifestyle project. This transformative learning experience

expanded on the *Daniel Fast* through the support of grant funding and the involvement of several departments on campus. Campus Ministries promoted the challenge and provided student leadership for the initiative. Food Services developed *Zoe*-approved food options across their eateries on campus. Nursing carried out a larger research component through the involvement of faculty and graduate students. P.E., Health and Wellness offered the use of the Human Performance Lab for data collection, and Health Services donated blood testing supplies and services.

The word *zoe* is the Greek word for life found in John 10:10, "I have come that they may have life, and have it to the full." The word means absolute fullness of life, a life active and vigorous, devoted to God, and blessed (Strong, 2007). Based on this passage, the objective of the *Zoe Transformation Challenge* was to foster personal spiritual growth and wellness in all dimensions of life while introducing students to the benefits of eating healthfully. The 28-day challenge had two components: 1) ad libitum consumption of a healthy whole foods eating plan, and 2) a spiritual component on the topic of prayer. Participants received daily emails with encouraging Bible scriptures, were given a copy of the book *Christ's Way to Pray* (Samaan, 2003), and were invited to attend weekly worships to discuss the readings and encourage one another. Similar to the *Daniel Fast*, the *Zoe Transformation Challenge* culminated in an agape feast and t-shirts for participants.

Research. Eighteen Master of Science in Nursing (MSN) students were involved in the research component of the *Zoe Transformation Challenge*, including conceptualization, research design, IRB and grant submission, participant recruitment, data collection, data entry, and data analysis. The purpose of the quasi-experimental, mixed-methods research study was to determine the effects of a 28-day faith-based lifestyle program on conventional inflammatory (cortisol, C-reactive protein, and interleukin-6), metabolic (lipids, glucose, resting metabolic rate), and anthropometric (body mass index, blood pressure) biomarkers of cardiovascular (CV) risk in a self-selected sample of apparently healthy young adults. No studies to date have examined the effect of a plant-based dietary intervention on conventional CV biomarkers in this age group. In addition to biometric testing, participants completed pre/post surveys to assess diet selection, physical activity level, perceived stress, and daily spiritual experience. Researchers also conducted interviews at the close of the *Zoe Transformation Challenge* on a subset of the sample to further explore participant spiritual experience. A concurrent control group of

undergraduate students not participating in the *Zoe Transformation Challenge* was also recruited. While much of the research data is beyond the scope of this paper, the research findings related to students' spiritual experience in prayer, Bible study, and relationships will be described.

The instrument used for testing spiritual experience was the *Daily Spiritual Experience Scale* (DSES), which has been used in numerous studies and has proven reliability and validity (Underwood & Teresi, 2002). The DSES is a 16-item self-report instrument that records ordinary experiences of spirituality. The instrument does not specifically define "spiritual experience," but was constructed to have deep relevance for those comfortable with theistic religious language (Underwood, 2011). It includes constructs such as a sense of God's presence, help and guidance in all aspects of life; joy in worship; strength and comfort in religion; feeling peace; a sense of God's love; thankfulness; selfless caring for others; and a desire to be close to God and in union with the Divine. These concepts have a biblical basis and were believed to be useful to assess spirituality within the context of Adventist beliefs and the *Zoe Transformation Challenge*.

Findings. An independent-samples *t*-test was run to determine if there were differences in Pre- and Post-DSES Total Scores between the control group and the experimental group. There were no outliers in the data, as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. The Pre- and Post-DSES Total Scores for each group were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = > .05$). The scores were not statistically different [$t(75) = 1.50, p = 0.137$; $t(47) = 0.226, p = 0.822$]. Additionally, the DSES demonstrated excellent reliability with Pre- and Post-test Cronbach's alpha of 0.922 and 0.925 respectively.

A paired-samples *t*-test was used to determine whether there was a statistically significant mean change in the DSES Total Scores within groups over the course of the challenge. Results are summarized in Table 1. The experimental group demonstrated a statistically significant improvement in Total DSES Scores from Pre-test to Post-test. The control group experienced an increase in their scores as well, but this was not statistically significant. The use of a more conservative nonparametric test, the related-samples Wilcoxon signed-rank test, revealed the same. These findings suggest that the *Zoe Transformation Challenge* positively impacted daily spiritual experience.

Further analysis using the related-samples Wilcoxon signed-rank test for individual DSES items demonstrated a significant change for all but four of the items in the experimental group (see appendix). These included questions such as: a) I feel God’s presence; b) During worship, or at other times when connecting with God, I feel joy which lifts me out of my daily concerns; c) I feel strength in my religion or spirituality; d) I feel deep inner peace or harmony; e) I ask for God’s help in the midst of daily activities; and f) I feel God’s love for me, directly. This perceiving, experiencing, and personal connection with God in the participants’ lives is consistent with transformative learning.

The questions without significant change for the experimental group addressed the following: a) I find comfort in my religion or spirituality; b) I feel a selfless caring for others; c) I accept others even when they do things I think are wrong; and d) I desire to be closer to God or in union with the Divine. The first question is hardest to hypothesize as to non-significance. It may be that the concept of comfort had little to do with the growth that participants felt during the *Zoe Transformation Challenge*. The second and third questions measure constructs that are not related to a dietary fast and focus on prayer. These two items were more outward- and other-focused; whereas the *Zoe Transformation Challenge* was more self- and prayer-focused. An analysis of the scores for the last question reveals that participants had a high median score at both Pre- and Post-test, which may explain the lack of significance. While not a negative finding, their strong desire to be close to God suggests an explanation for why these students joined the *Zoe Transformation Challenge* and opted to participate in the research component.

DSES Total Score	Control Group (n = 15)	Experimental Group (n = 34)
Pre (M±SD)	67.67 ± 11.40	63.00 ± 10.88
Post (M±SD)	70.27 ± 8.95	69.53 ± 11.13

Change (M±SD)	2.60 ± 7.57	6.53 ± 7.74
P-value*	.205	.000

The control group had no statistically significant changes on any individual DSES question or on DSES Total scores. While not statistically significant, they did begin the study with a higher Pre-DSES Total score than the experimental group. This suggests the possibility that the experimental group joined the *Zoe Transformation Challenge* because they felt something missing in their lives or were searching for spiritual growth more than the control group, who appears quite stable from Pre- to Post-test.

Table 1. Within-Group Pre/Post DSES Total Scores

Spiritual experience. Although formal qualitative data analysis is still underway, several comments in the post-intervention interviews may explain the increase in DSES Total Scores in the experimental group and demonstrate the transformative learning that took place during the *Zoe Transformation Challenge*:

- *“It did transform my prayer life.”*
- *“Having the daily devotionals just really made me feel a lot closer.”*
- *“The daily readings helped me refresh things that I kind of knew already, but I guess combined with the fast, it brought a new meaning. I had never done something to this extent for this period of time before so those two combined gave a new refreshing and deeper experience that I haven’t really felt before.”*
- *“Before I did the diet, I would be really obsessed with figuring out what I was going to eat for the day ... after I started the diet, the first couple of days I would think what am I going to eat, but then it was just like, I will eat what there is and not really worry about it. That freed up a lot of time just to have my mind on God and other things other than just food, so that was really good.”*
- *“It kind of got me back on focus with those things that I just didn’t think about anymore and I guess the whole idea of Christ interceding for us is something that in reading it again is kind of like, wow that is actually pretty poetic.”*
- *“I found them [the daily scripture readings] very uplifting, encouraging, and they seemed to match the project and kind of took you on a journey in a way.”*
- *“When I started the ZOE fast, I originally was going in to lose weight and to try to be healthier and be the best I could be. I started out looking into the health portion of it, but as time went on, ... I realized how much more I needed to pray, more than the need to eat something.”*

- “For me the spirituality and diet were related. It shows that things will come back around. Like you don’t have to have it, you can have self-control and for me it teaches me how to stand alone when everyone else is not doing what you are doing.”
- “Beforehand, I didn’t feel like my prayers were heard because nothing was happening, but it was a different approach to prayer during that time.”
- “I found out ... how much of an appetite I had. A big thing was the food part, but just saying ‘Lord please just help me’ gave me strength. ... [It] made me realize that prayer and food go hand-in-hand.”
- “I see how parallel temptation and self-control are. If you are tempted, you need the strength in God to have self-control so that temptation does not overcome you each and every time.”

These quotes illustrate the complexity of the transformative learning experience for participants in the *Zoe Transformation Challenge*. Through the varied activities, students experienced the many aspects of knowing. As they better understood food choices and realized new meaning from the devotional readings, they experienced *epistamai* knowledge. MSN students also better understood the Bible as a framework for personal lifestyle change and a model for presenting health to others. *Syniēmi* knowledge was gained, as students tasted a variety of wholesome plant-based foods. Several students used the word “focus” and “see” in their interviews, describing the experience of *oida* knowledge. Above all, it is apparent that the *Zoe Transformation Challenge* was a catalyst for the students to personally apply biblical principles to their daily lives, not merely in theory, but in personal experience—the *ginōskō* type of knowledge. This laid a strong biblical foundation for acquiring the deeper *epiginōskō* knowledge of God.

Limitations. Several limitations were identified in this research project. The first is the potential for self-selection bias due to the convenience sampling method and lack of random assignment to study arms. The self-reported data is another limiting factor that may have affected the validity of the data by introducing a potential for bias due to poor memory or exaggeration. An issue related to study protocol was identified that may have affected results. It was discovered during data analysis that the question, “I feel guided by God in the midst of daily activities,” had been accidentally omitted from the DSES questionnaire. In addition, the small sample size and attrition may not have provided adequate statistical power to capture changes in daily spiritual experience. The timing of the *Zoe Transformation Challenge* during the last month of the semester may have been a contributing factor in participation rates.

Conclusion

Overall, the feedback from participants in the *Daniel Fast* and the *Zoe Transformation Challenge* and the preliminary research results from these projects show their potential for fostering transformational learning and assisting students to integrate change and undergird the biblical principles in their lives in meaningful ways. Moreover, there are far-reaching effects of such campus-wide learning experiences. Students who may not often mix outside of their discipline or major have additional opportunities for the social and intellectual stimulation of engaging with others whose interests in life may be very different from their own. These approaches can be effective in creating a campus-wide culture of wellness and building student engagement and interest in biblical values. Furthermore, such projects provide opportunities for interaction of faculty and graduate and undergraduate students in the context of a research agenda. Demonstrating scientifically the outcomes of such projects allows Adventist educators and students to confidently show the world the value of Adventist education.

Developing campus-wide healthy lifestyle projects take time, resources, intentionality, and much planning. Most departments do not have the time, staff, budget, or resources for implementing a campus-wide initiative. The projects described in this paper, however, offer a promising alternative that is worth exploration. Projects can be grown from the spiritual hub of campus, reaching out like spokes to include undergraduate and graduate faculty and students across disciplines. One project per year might be a good starting place for an institution with limited resources. Where greater resources exist, an institution could consider simultaneous projects that give students more options or doing one project per semester or term.

Simultaneously, further research could be done on the role of campus-wide learning experiences to identify which aspects of the experience are most pivotal in fostering spiritual growth, improving health, and improving student satisfaction. It would also be valuable to identify objective ways to measure the long-term outcomes of such projects in areas such as sustained health behavior change, involvement with church and community activities, and institutional enrollment and retention.

In Psalm 119:9, the Psalmist asks an important question that is still applicable to college-age students today, "How can a young person stay on the path of purity?" The response, "by living according to Your Word," emphasizes the value of a biblically founded Adventist education. The scripture highlights the importance of

education that fosters positive personal health habits aimed at strengthening young people in mind, body, and spirit; that makes them shining examples of health, wholeness, and happiness to others in the world around them; and that brings them to a full knowledge of Christ and solidifies their relationships with Him for eternity. These goals may be accomplished with creativity and intentionality through holistic, transformative, campus-wide learning experiences based on scientific and biblical principles.

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Appendix

*DSES Pre- and Post-test Median Scores and
Related-samples Wilcoxon Signed Rank Test of Differences*

Items*	Control group				Experimental group			
	Pre	Post	Z (n)	p	Pre	Post	Z (n)	p
Q 1 – I feel God’s presence	4.0	5.0	1.299 (15)	0.194	4.0	5.0	3.658 (34)	0.000**
Q 2 – I experience a connection to all of life	4.0	5.0	1.473 (15)	0.141	4.0	5.0	3.046 (32)	0.002**
Q 3 – During worship, or at other times when connecting with God, I feel joy which lifts me out of my daily concerns	4.0	5.0	0.577 (15)	0.564	4.0	5.0	3.169 (32)	0.002**
Q 4 – I find strength in my religion or spirituality	4.0	5.0	1.155 (15)	0.248	4.0	5.0	2.419 (33)	0.016*
Q 5 – I find comfort in my religion or spirituality	4.5	5.0	1.000 (14)	0.317	5.0	5.0	1.890 (34)	0.059
Q 6 – I feel deep inner peace or harmony	4.0	5.0	0.000 (15)	1.000	3.0	4.5	3.616 (34)	0.000**
Q 7 – I ask for God’s help in the midst of daily activities	5.0	5.0	0.577 (14)	0.564	5.0	6.0	2.258 (33)	0.024*
Q 8 - I feel guided by God by God in the midst of daily activities	nd**	nd	nd	nd	nd	nd	nd	nd
Q 9 – I feel God’s love for me, directly	5.0	5.0	1.890 (14)	0.059	4.0	5.0	2.278 (32)	0.023*
Q 10 – I feel God’s love for me, through others	4.0	4.0	1.027 (15)	0.305	4.0	5.0	2.546 (33)	0.011*
Q 11 – I am spiritually touched by the beauty of creation	4.0	5.0	0.378 (15)	0.705	5.0	5.0	2.555 (33)	0.011*
Q 12 – I feel thankful for my blessings	6.0	5.0	-1.00 (15)	0.317	5.0	5.0	2.016 (34)	0.044*
Q 13 – I feel selfless caring for others	4.0	5.0	1.667 (15)	0.096	4.0	4.0	1.454 (33)	0.146
Q 14 – I accept others even when they do things I think are wrong	5.0	5.0	0.577 (15)	0.564	4.0	5.0	0.921 (32)	0.357
Q 15 – I desire to be closer to God or in union with the divine	6.0	5.0	-0.81 (14)	0.417	6.0	6.0	0.894 (34)	0.371
Q 16 – In general, how close do you feel to God?	3.0	3.0	0.000 (15)	1.000	2.0	2.5	3.162 (34)	0.002**

Note. Q 1 -15 have a 6-point rating scale: never; once in a while; some days; most days; every day; many times a day. Q 16 has a 4-point rating scale: not at all; somewhat close; very close; as close as possible.

nd = no data

* $p < 0.05$. ** $p < 0.01$