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Taste and See that the Lord is Good: A Christian Liberal Arts Education and the Development of Students' Theology of Nutrition

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TASTE AND SEE THAT THE LORD IS GOOD: A CHRISTIAN LIBERAL ARTS
EDUCATION AND THE DEVELOPMENT OF STUDENTS'
THEOLOGY OF NUTRITION

A thesis

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by

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Abstract

The purpose of this study was to explore the impact of a Christian liberal arts (CLA) university on students' development of a theology of nutrition. Through phenomenological research, this study explored the experience students had with food and the education they received regarding nutrition at the CLA university. The study was guided by the following research questions:

- How do students' experiences at a CLA university impact their theology of nutrition?
- Does a theology of food change eating habits?
- Does taking part in a nutrition course change an individual's food choices compared to those who do not take a nutrition course?

Major findings centered on the positive impact of nutrition education on the development of a theology of nutrition and the challenges to healthy eating on campus. Participants mostly expressed theologies through moderation/balance, fuel, and the biblical reference to the body being a temple. There appeared a strong presence of community and disordered eating among university students. Recommendations for practice included the incorporation of a nutrition-specific course into the core curriculum and providing students with good foods with nutritional information to encourage education so students can appropriately care for their bodies.

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Chapter 1

Introduction

How do students' experiences at a Christian liberal arts university (CLA) impact their theology of nutrition? A freshman student entering a university setting engages with food, often for the first time, without the influence of parental guidance. The student eats daily out of necessity but has not often thought about creating a balanced meal or picking the nutritious foods with the appropriate portions. While at home, the student ate what his or her mother or father prepared for dinner each night. Suddenly, the student walks onto a university campus and is responsible for making all of his or her own food choices. The student buys his or her own groceries to keep in the dorm room. The student chooses when he or she is going to eat out with friends or make a late-night run to a fast food restaurant to get ice cream. The student walks into a buffet style cafeteria and has unlimited food options consisting of pizza, pasta, salad, burgers, fries, ice cream, fruit, soda, etc. The student must develop an understanding of how the food he or she consumes impacts the body and the soul (Deliens, Clarys, De Bourdeaudhuij, & Deforche, 2014; Kasperek, Corwin, Valois, Sargent, & Morris, 2008; Seward, Block, & Chatterjee, 2016; Silliman, Rodas-Fortier, & Neyman, 2004; Todd, 2015). The CLA university has the opportunity to educate students on how to engage food in a way that honors the Lord and is good for their bodies. However, a gap in the literature exists regarding CLA efforts in helping students develop a theology of nutrition.

Definitions

A theology of nutrition merges the two concepts of theology and nutrition. Stone and Duke (2013) define theology as “theo-logia. Sayings, accounts, teachings, and theories (logia) concerning God (theos). Theology is a belief, conception, or study of God” (p. 8). The present study reflects the Judeo-Christian belief in one God, defined as monotheism. Nutrition is defined as “the science of foods and the nutrients and other substances they contain, and of their actions within the body. . . . A broader definition includes the social, economic, cultural, and psychological implication of food and eating” (Whitney & Rolfes, 2012, p. GL-16).

Purpose of the Study

The purpose of this study was to explore the development of a theology of nutrition among college students by exploring students’ lived experience at a CLA university in the Midwest. This study also sought to understand if a theology of nutrition as well as nutrition education changes eating habits. This study was guided by the following research questions:

1. How do students’ experiences at a CLA university impact his or her theology of nutrition?
2. Does a theology of food change eating habits?
3. Does taking part in a nutrition course change an individual’s food choices compared to those who do not take a nutrition course?

Chapter 2

Literature Review

Theology of Nutrition

God cares about humanity's nourishment. He designed us to be dependent on his provision found in the garden. Genesis 2:8–9 states,

Now the Lord God had planted a garden in the east, in Eden; and there he put the man he had formed. And the Lord God made all kinds of trees grow out of the ground—trees that were pleasing to the eye and good for food. (NIV)

By partaking in the nourishment of food, we discover the Lord's grace and provision. He is the sustainer, and the food he provides naturally on this earth is a gift to humanity. We honor God by humbling ourselves, acknowledging our dependence on His provision, and consuming the richness of creation. The act of eating is not separate from, but intricately connected to, the nature of God and His design for humanity:

I give you every seed-bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will be yours for food. And to all the beasts of the earth and all the birds of the air and all the creatures that move on the ground—everything that has the breath of life in it—I give every green plant for food.

(Genesis 1:29–30)

Without a theology of nutrition, humanity experiences deficiency in its attempt for wholeness (Berry, 1993).

Western Diet's Influence on Nutrition

The idea of nutrition is tainted by the Western diet. Much of the Western approach to nutrition reduces the foods consumed to mere nutrients that are scientifically manipulated (Pollan, 2008; Scrinis, 2013). Our ideas of nutrition and the gift of eating are disconnected from the Creator. Rather than consuming whole foods and understanding their benefits to the body, we have scientifically engineered foods to be packaged and preserved, while maintaining a low calorie count (Pollan, 2008; Scrinis, 2013). Food has become part of a science rather than a way to worship God through partaking in His creation. Food has become a means to an end rather than a spiritual encounter. Students influenced by the Western diet have a chance to enter the Christian university setting and develop a proper theology of nutrition. How do university students experience wholeness and develop a theology of nutrition in an environment that seeks to foster holistic development and depth of relationship with God?

University Students' Experiences with Nutrition

Students, aware or not, enter a university with a theology of nutrition. Food is everywhere in the college setting. Food fills the cafeterias, planned events, and residence halls and is often a means of entertainment. A study examining the determinants of eating behaviors among university students revealed, "Lack of discipline and time, self-control, social support, product prices (costs) and limited budgets, and the availability of and access to (healthy) food options were reported as important influencing factors of students' eating behaviours" (Deliens et al., 2014, p. 2). The lack of nutritional awareness and importance impacts students and causes an absence of shalom when they thoughtlessly consume food. Many university students experience a lack of wholeness in

their relationship with creation when engaging with the creation that helps to sustain us—food (Berry, 1993). A CLA university that believes in holistic development should invest in educating and developing a theology of nutrition among students. Without the education and development of a theology of nutrition, students use food without thought to where it came from and who or what it has impacted. Students cannot truly know if the food they consume is good, which leads to a deficiency in their understanding of God as sustainer and provider.

The purpose of this research is to examine how students' experiences at a CLA university impact their theology of nutrition. A CLA university should understand the deep need for students to take care of their bodies through the food consumed. This study includes three research questions: 1) How do students' experiences at a CLA university impact his or her theology of nutrition? 2) Does a theology of food change eating habits? 3) Does taking part in a nutrition course change an individual's food choices compared to those who do not take a nutrition course?

Theology of Food

Theology. “To receive food as a gift and as a declaration of God’s love and joy is to receive food in a theological manner” (Wirzba, 2011, p. 11). Engaging food requires a theological lens to embrace fully the gift of humanity’s dependence on the Creator. Without a theological lens, humans are more likely to abuse the gift of food and the purpose of eating. McMinn (1996) wrote, “Food is evidence of God’s grace. Variety is evidence of God’s creativity and abundance of God’s generosity” (p. 121). Attending a university is a pivotal time in a student’s life during which significant development occurs. Part of an individual’s development must include a theology of nutrition.

God's design for nutritional needs. Humanity is designed to be dependent on food for energy, nourishment, and strength. Our need for food connects to our calling. "The LORD God took the man and put him in the Garden of Eden to work it and take care of it" (Genesis 2:15). Humanity began in the garden. If the essence of being and calling requires food, the intake of food is an act of worship and a reminder of God's provision for His children. Wirzba (2011) stated, "Theologically understood, food is not reducible to material stuff. It is the provision and nurture of God made pleasing and delectable. It is the daily reminder that life and death come to us as gifts" (p. 7). Developing a theology of nutrition begins by acknowledging the beauty of God's design for nutritional needs. Berry (1993) expressed, "If we credit the Bible's description of the relationship between Creator and Creation, then we cannot deny the spiritual importance of our economic life" (p. 154). We must steward the gift of the garden and fulfill our calling as humans to take care of the garden and enjoy its richness as an act of worship to the Creator.

Holistic beings. The term *holistic* encompasses the mind, body, and soul. Every aspect of a human being is developed. Cortez (2008) expressed this concept well:

The human person is characterized by a distinct duality: the objective and subjective moments of human existence. The first moment, the soul, involves the human being's subjective and conscious life. The body, the second moment, denotes that which executes the decisions of the soul, displays the attitudes developed by the soul, and represents outwardly the interiority of the subjective self. (p. 6)

As holistic individuals, nutrition encompasses the physical and spiritual. Western culture today tends to focus on the physical and misses the vitality of the spiritual, reflecting a

fallen nature. The Christian faith refers to sin's entrance into the world as *the fall*. In Genesis 3, Eve ate the forbidden fruit from the tree of knowledge, which was an act of disobedience against God. Humanity is now considered fallen. "We are deficient in wholeness, harmony, and understanding--that is, we are "fallen" (Berry, 1993, p. 150). Our fallen nature reflects the poverty we experience with creation, specifically our relationship with food. Eating simply for the physical benefits depraves us of the deeper meaning of food, which prevents us from developing holistically. Pollan (2008) stated, "Food is also about pleasure, about community, about family and spirituality, about our relationship to the natural world, and about expressing our identity" (p. 8).

We are deeply connected both physically and spiritually to the garden, yet our American culture reflecting today's Western diet is increasingly removed from the garden. We are no longer holistic; we are, as Berry (1993) noted, deficient in wholeness, harmony, and understanding. Moving away from the garden leads us toward deficiency and a life void of the goodness and richness of life we were intended to have. In essence, "We will discover that, for these reasons, our destruction of nature is not just bad stewardship. . . . It is flinging God's gifts into his face, as of no worth beyond that assigned to them by our destruction of them" (p. 98). The growing separation has created a distortion of a theology of nutrition.

Nutrition

A vast amount of diets exist in our world, yet a few foods are commonly identified as healthy and whole. "The theme of healthful eating consistently emphasizes the same foods: vegetables, fruits, beans, legumes, nuts, seeds and whole grains" (Katz & Meller, 2011, para. 21). Katz and Meller explained that there is no diet that is "best."

However, there are foods that should be consistently part of our diet. “A diet of minimally processed foods close to nature, predominantly plants, is decisively associated with health promotion and disease prevention and is consistent with the salient components of seemingly distinct dietary approaches” (Katz & Meller, 2014, para. 1). Pollan (2008) succinctly articulated the approach to good nutrition: “Eat food. Not too much. Mostly plants” (p. 1). Americans today, however, are influenced by the Western diet’s approach to nutrition, which is inconsistent with a proper theology of nutrition in its emphasis of nutritionism and overconsumption.

Nutritionism. Rather than investing in good, whole foods, the age of nutritionism has led to the consumption of low-fat, low-cholesterol, packaged foods made up of preservatives and additives that are prepared to eat in minutes. The Western diet creates dissonance with a proper theology of nutrition. The present study research reflects the work of Michael Pollan, in his book, *In Defense of Food*, which addresses the impact nutritionism has had on Western culture. The nutritionism ideology defined by Pollan (2008) expresses “that we should understand and engage with food and our bodies in terms of their nutritional and chemical constituents and requirements” (p. 27). The Western diet engages in a scientific approach to nutrition. The value of the nutrient far outweighs the value of natural whole foods (Pollan, 2008).

When students, raised in this mentality, enter the university setting, there tends to be a lack of consideration for the food consumed. Rather, factors such as taste, time, and ease determine what students eat. “I want it to be easy, so I don’t have to be cooking for one hour for myself, . . . so I grab something that can be warmed up quickly” (Deliens et al., 2014, p. 5). Food in this context reflects the nutritionism mindset.

According to Scrinis (2013), “Nutritionism similarly encourages the consumption of foods that have been nutritionally engineered, such as low-fat, low-cal, or trans-fat-free varieties, rather than advising decreased consumption of highly processed foods” (p. 43). Pollan (2008) summarizes this concept best:

Most of what we’re consuming today is no longer, strictly speaking, food at all, and how we’re consuming it – in the car, in front of the TV, and, increasingly alone – is not really eating, at least not in the sense that civilization has long understood the term (p. 7).

Overconsumption. Not only has nutritionism overwhelmed American culture, but the idea of preparing and dining over a meal is increasingly undervalued. Americans tend to eat as quickly and conveniently as possible, which often causes overconsumption “. . . when taste overrules hunger, when want outweighs need. . . . in America, where upsizing has always been part of the American dream, it’s often difficult to distinguish what is hard-earned achievement and what is indulgent excess” (Todd, 2015, para. 5). Most individuals cannot identify where their food comes from—they simply eat.

This reality is magnified on a college campus where students enter a world of buffets and late-night food consumption. “During the first 12 weeks on campus, Cornell University freshmen gained an average of 4.2 pounds” (Kasperek et al., 2008, p. 437). Berry (1992) articulated, “The industrial eater no longer knows or imagines the connections between eating and the land, and is therefore passive and uncritical—in short, a victim.” (p. 13). It becomes difficult to value the food and its necessity when it is ready within minutes without any investment in the process of growth or preparation.

Unfortunately, the church's engagement in the development of a theology of nutrition is severely lacking. The church is made up of individuals impacted by the Western diet and nutritionism. Individuals in the church wrestle with overconsumption as well. Todd (2015) articulated,

In practice, there are some sins that are socially acceptable, even in the Church. There's one sin in particular that has pervaded our society and churches so silently we hardly give it a second thought, and that is the constant hunt for more over what is enough. Or, in an uglier terminology, what is known as gluttony. (para. 2)

Trends in eating behaviors of university students. With the nutritionism ideology and the Western diet's tendency to overconsume well-ingrained in the minds of young university students, their habits carry over and are enhanced in the college setting.

Silliman and colleagues investigated perceived barriers to healthy eating and found trends among university students:

When asked to rate the "healthiness" of their eating habits, 51% of participants state "poor" or "fair." When asked to state the reasons for poor eating habits, 40% state "lack of time," 22% state "lack of money," 15% state "taste preferences" and 24% state other reasons. (p. 12)

According to Brown, O'Connor, and Savaiano (2014), "Forty-three percent of the respondents indicated that they skipped breakfast "usually/often," (p. 323). Breakfast is a critical meal, yet 43% of students surveyed do not create space for it in their daily routine. "In the present survey, 58% and 64% of the participants state they consume vegetables or whole or canned fruit less than once per day" (Silliman et al., 2004, p. 12).

According to Jayaskerea et al. (2015), 61.2% of university students are not satisfied with the healthiness of the food they consume. This statistic highlights the need for intervention on university campuses.

Regular nutritional patterns hinder students from eating well. Other aspects of college contribute to poor eating habits among students. The activities and environment directly impact the consumption of food:

While “boredom” is the most frequently cited reason for snacking, men state “partying” as a reason for snacking more frequently than women and women state “emotional” more frequently than men. Most students snack on chips, crackers, or nuts; but men snack on fast foods more and on ice cream, cookies and candy less frequently than women. (Silliman et al., 2004, p. 12).

These foods are high in preservatives and sugar, which can contribute to obesity and reinforce the negative aspects of the Western diet. “Emotional eaters may eat in response to both positive and negative emotional states, as well as in response to environmental stimuli; emotional eating behaviors are also associated with overweight and obesity as well as binge eating” (Crombie, Ilich, Dutton, Panton, & Abood, 2009, p. 87)

According to Seward and colleagues (2016), “the proportion of overweight and obese college students increased from 33% in 2010 to 40% in 2015 according to American College Health Association health assessments” (p. 1808). These results do not indicate an investment in a development of a theology of nutrition. “University students seem to be the most affected by nutrition transition. These dietary behaviors are mostly attributed to drastic changes in the environment and resources available, frequent exposure to unhealthy foods and habits” (Jayaskerea et al., 2015, p. 1).

University cafeteria experience. “College cafeterias are the breeding grounds for students acquiring an unhealthy lifestyle” (Dillinger, 2012, p. 10). The buffet style cafeteria is stocked with several entrees, sides, beverages, and desserts at every meal. Often students come to college before learning how to eat healthy foods. Now, without parental guidance, students are free to consume whatever they desire. Thus, a student’s theology of nutrition is impacted by what is provided for their daily experience with food.

Seward et al. (2016) explored the dietary choices of college students in various cafeterias at Harvard University. The study used the traffic light labeling system, identifying all food and beverages as green (most healthy), yellow (average healthy), and red (least healthy). “Positive criteria included fruits, vegetables, whole grains, lean protein, and low-fat dairy, whereas negative criteria included saturated fat, added or high sugar, sodium, red meat, and refined starch” (p. 1809). Results were as follows:

Over the 13-week study, 2 648 277 portions of food and beverages were served in 434 625 meals. Among items available in the cafeterias, 45% were labeled green, 21% yellow, and 34% red. Among entrees (both vegetarian and meat) available in the cafeterias, 38% were green, 20% yellow, and 42% red. Among beverages available in the cafeterias, 15% were green, 20% yellow, and 65% red. (p. 1810)

According to this study, the cafeterias supply more foods labeled red than green options for students. Awareness of the nutritional realities does not change the fact that Harvard cafeterias supplied the foods labeled red.

Still, providing information regarding various foods’ nutritional aspects was a chance to educate students. The ability to choose allowed students to actively develop their understanding and approach to nutrition as they thought about what they would eat.

Results showed “sixty-two percent and 68% of postintervention students said nutrition information often or always affected food and beverage choices” (Seward et al., 2016, p. 1811). Improving students’ theology of nutrition begins in the cafeteria where the food provided reflects care for students’ overall health needs rather than their cravings.

The presence of nutritionism as well as the Western diet’s influence of overconsumption reflect “a dependence on scientific expertise, a susceptibility to food marketing claims, and a general sense of anxiety about “what to eat” (Scrinis, 2013, p. 46). A theology of nutrition is difficult to form while approaching food scientifically through the lens of nutritionism and while disconnecting the food we eat from the land. After experiencing the Western diet since childhood, students enter the university setting and have the opportunity to develop a new theology of nutrition.

Development of Theology of Nutrition

College is an ideal time for intervention as students are in the process of creating lifestyle patterns (Huang et al., 2003). Acknowledging that being a whole person includes the mind, body, and soul, students should develop their theology of nutrition through their experience at a university. The food they consume impacts the mind, body, and soul. Consumption of healthy foods feeds the mind to think clearly and rationally (Goyal, Venkatesh, Milbrandt, Gordon, & Raichle, 2015). The body is sustained by the intake of energy and nutrients. The soul is full of joy as a meal is shared in community. Thus, the body’s needs are provided for by the Creator and sustainer of the world.

Nutrition education. A study by Martinez, Roberto, Kim, Schwartz, and Brownell (2012) revealed that 96% of Yale student responders believed that nutrition information should be available for students. The desire to invest in nutrition is evident

among students. CLA universities must take an active role in helping students develop their approach and theology of nutrition. In a 2008 study comparing freshmen who completed a nutrition class with those who did not, Kasparek and colleagues discovered that “students with high BMIs (i.e., > 24) who did not take the nutrition class gained an average of 15 to 20 lbs over the year” (p. 440). BMI stands for *Body Mass Index*, “a measure of relative weight based on an individual's mass and height”; a BMI above 25 is considered overweight (Kolimechkov, 2015, p. 2). According to this study, students who had a high BMI and did not take a nutrition class gained more weight. Educating university students, however, is more than weight consistency and body image; it is about understanding self in relation to creation and how to steward self and creation.

Students need exposure and education regarding nutrition. Awareness of what Berry (1992) viewed as a transaction between an individual and his or her food is vital to understanding nutrition. Nutrition education for the typical college-age student began in elementary school with the introduction of the Food Pyramid. Per Brown et al. (2014), this “representation of balanced eating demonstrated a misleading hierarchical display of numerical servings rather than the health benefits of the food group” (p. 320). University students’ nutrition education began with a flawed philosophy, which informed their knowledge of nutrition, influenced also by what was provided and made at home.

Unfortunately, the Western diet created inconsistency through the years, which leaves students to base nutrition off of the current trend in nutritionism (Pollan, 2008). “Over the last several decades, mom lost much of her authority over the dinner menu, ceding it to scientists and food marketers . . . and, to a lesser extent, to the government, with its ever-shifting dietary guidelines, food-labeling rules, and perplexing pyramids”

(Pollan, 2008, p. 3). Students need a theology of nutrition based on what the Creator intended when designing creation to sustain help humanity.

Conclusion

University students, aware or not, are developing their theology of nutrition in their experiences at a CLA university. Exposing students to a theology of nutrition requires engaging with the idea of theology in relation to nutrition and to God as creator. Without a theological approach to nutrition, students experience deficiency in wholeness, harmony, and understanding and are left with a cheap imitation of nutrition. Therefore, how does a student's experience at a CLA university impact his or her theology of nutrition?

We were designed by a creator to be sustained in part by creation. Made for the garden, we must thus be good stewards of that sustenance. CLA universities are responsible to care for students holistically by partaking in the development of a theology of nutrition. However, the nutritionism ideology plaguing the Western diet has destroyed students' perceptions regarding food and the spiritual design of being sustained by food.

By educating students on nutrition and providing a theological understanding of nutrition, university students have the ability to develop a much-needed theology of nutrition. Berry (1992) articulated well how we might change our present reality: "...by restoring one's consciousness of what is involved in eating; by reclaiming responsibility for one's own part in the food economy" (p. 14).

Chapter 3

Methodology

The purpose of this study was to analyze the impact a small CLA university has on students' theology of nutrition. This study also analyzed whether students' theology and understanding of nutrition changed their behavior. Utilizing focus groups and implementing a pre-test and post-test for students enrolled in a specific nutrition course, this study sought to understand the CLA university's impact on students' theology of nutrition as well as explore if nutritional instruction changes behavior in food choices.

Design

This study employed a phenomenological design rooted in the qualitative method approach. Creswell (2015) explained a phenomenological design as one “describes the common meaning for several individuals of their lived experiences of a concept or a phenomenon” (p. 76). As well, Creswell defined hermeneutical phenomenology as “research as oriented toward lived experience (phenomenology) and interpreting the “texts” of life (hermeneutics)” (p. 79).

A qualitative focus group research design was utilized to identify students' understandings and development of a theology of nutrition at various stages in their years attending a university. Creswell (2015) described focus groups as “the process of collecting data through interviews with a group of people, typically four to six. The

researcher asks a small number of general questions and elicits responses from all individuals in the group” (p. 217).

The general questions asked by the researcher were open-ended. “The participants can best voice their experiences unconstrained by any perspectives of the research or past research findings” (Creswell, 2015, p. 216). Open-ended questions within focus groups provide a safe space for participants to engage with one another over a topic that is not often discussed. This allows for multiple perspectives to be heard. Creswell (2015) expressed, “Multiple perspectives are important when conveying the complexity of the phenomenon in qualitative research” (p. 249).

Context

This study was conducted at a faith-based liberal arts institution in the Midwest. Approximately 2,000 students are enrolled at this university; 57% are female and 43% are male. The university’s mission statement emphasizes the desire for holistic development encompassing the intellectual, emotional, physical, vocational, social, and spiritual development.

The focus group approach allowed for conversation to take place and a broader understanding of a theology of nutrition as participants heard one another’s experiences and understandings. Four different groups were interviewed. The first two groups were two different freshmen student groups. These groups were compared to those interviews with two senior student focus groups. The purpose of these four groups was to compare a theology of nutrition from the first year at a university to the last year and thus provide a perspective on theological development. The two freshmen groups consisted of male ($n=5$) and female ($n=3$) participants, and the two senior groups consisted of male ($n=6$) and

female ($n=4$) participants. The freshmen students were selected from a freshmen course, and the senior students were selected from a senior seminar course in order to obtain some understanding of possible theological development over the course of their time at the CLA university. The participants from the pre-test and post-test were students enrolled in a specific nutrition course offered at that university. The emphasis on this research was the impact direct nutritional instruction has on students' development and understanding of a theology of nutrition.

Procedures

The researcher first secured permission from the university's institutional review board. Once the researcher received permission, the researcher secured approval from the professors of each course and selected participants through purposeful sampling. "In purposeful sampling, researchers intentionally select individuals and sites to learn or understand the central phenomenon" (Creswell, 2015, p. 205). In order to present multiple perspectives, students were selected from different courses utilizing the maximal variation sampling. "Maximal variation sampling is a purposeful sampling strategy in which the researcher samples cases or individuals that differ on some characteristic or trait" (Creswell, 2015, p. 206).

The participant groups included freshmen, seniors, students from a nutrition education class, and students from a general education class without any nutrition education. Students from the four courses were asked if they would be interested in participating in the study. The researcher and the professor then chose participants from among those who expressed interest. Participants represented different ages, genders, and cultures to ensure that multiple voices and experiences were represented. Via email,

the researcher selected and contacted three to six students from each course regarding the study focus group procedure. The researcher set up a time to meet and interview each group of students. Each group met for 40 to 80 minutes and answered general questions provided by the researcher regarding their approach and understanding of theology of nutrition.

Data Analysis

The researcher secured permission from the institutional review board as well as from the professors of each course from which the participants were chosen. Once participants were selected, the researcher explained the purpose of the research and the plan for participant anonymity. The participants were given a description of the focus group procedure before securing permission from them. Participants were recorded after securing permission from each individual. The researcher listened and transcribed all four interviews. Transcription is described as “the process of converting audiotape recordings or field notes into text data” (Creswell, 2015, p. 238).

The researcher then reviewed the transcripts and coded the data. The coding process examined overlap and redundancy among the participants’ experiences and understandings of nutrition (Creswell, 2015). These codes were categorized into major themes that emerged through common phrases, quotations, and important words. Themes were interpreted into findings in a narrative discussion. “A narrative discussion is a written passage in a qualitative study which authors summarize, in detail, the finding from their data analysis” (Creswell, 2015, p. 253). The researcher conducted an external audit to validate the findings. In an external audit, the researcher “hires or obtains the

services of an individual outside the study to review different aspects of the research” (Creswell, 2015, p. 259).

Benefits

While researching the topic of nutrition among university students at a CLA university, the researcher discovered a gap in the literature. A significant amount of research exists for nutritional exploration on university campuses; however, minimal research can be found for the Christian university nutritional experience. A Christian community needs to develop a theology of nutrition in order to care for students holistically. Nutrition is a vital part of caring for the physical body, while also an act of worship. This research revealed the importance and need to care for university students holistically by investing in and developing their theologies of nutrition while they attend a CLA university.

Chapter 4

Results

This study sought to identify the impact a CLA university has on students' theology of nutrition, as well as explore if nutrition education influences students' eating habits. Through conducting focus groups with freshmen and senior students in various majors as well as surveying participants in a specific nutrition course, students answered questions regarding their experience with food and nutrition at a specific CLA university and their theologies of nutrition. Six themes emerged from these interviews and surveys.

Nutrition Education Positively Impacts the Development of a Theology of Nutrition

Three of the four focus groups experienced and expressed some type of nutrition education from the kinesiology department, which informed their theology of nutrition. These participants shared that they ate better and more thoughtfully as a result of their nutrition education.

Theological development after a nutrition course. A pre-test and post-test survey to measure theology of nutrition was distributed to a class of students enrolled in a specific nutrition course. Five of eleven participants (45%) in the pre-test expressed a spiritual element to nutrition. Students addressing spiritual elements made comments referring to the body as a temple or the body being a gift from God used for His missional work. In the post-test, 8 of 11 participants (73 %) expressed a spiritual element to nutrition, demonstrating a 28% increase.

Students who took a specific nutrition course as well as interacted with a specific professor on campus known for a holistic approach to nutrition have a developed theology of nutrition. Participants in the focus groups as well as participants from the pre-test and post-test who were enrolled in specific nutrition courses at some point in their education at the CLA university articulated theologies that incorporate concepts of community, enjoyment, dependence on the Lord's provision, and awareness of food sources and what exactly they consume. The students in the nutrition classes were impacted by both the course content and the professor's influence.

One freshman student from a focus group referenced his nutrition education experience in answer to a question regarding how one goes about choosing foods to eat at the CLA university: "I'll end up eating a fruit and vegetable with every meal now uh one of the goals in [the professor's] class." Similarly, a senior noted,

Taking exercise science classes and just having these um, having those classes shape how I think about nutrition and having um just with the professors opinions just like them sharing what they think with us . . . yeah I think that's cool and that's something I've learned since I've been here at [the university].

Theological development after four years. One of the senior focus groups, which included a group of students not exposed to a course-long nutrition class, did not feel as though their experience at this CLA university had an impact on their theology of nutrition. One senior articulated, "Overall I don't think that [the university] has really influenced my perception of um food options and things um it's been mostly like personal decisions and also like social influences."

Challenges to Eating Healthy on Campus

Every focus group articulated the challenges of eating well at this specific CLA University. The students have two options for meals on this campus. The main dining area is a buffet-style dining experience. The other is located in the student center, where students select a main entrée with sides and a drink, reflecting more fast food options.

Each focus group expressed frustration with the amount of unhealthy options available to them, including a large assortment of desserts located by the stairs when leaving the D.C. [Dining Commons]. Every focus group referenced bad fruit or the lack of good fruit options in the D.C. One freshman stated,

I just like have seen a huge trend of people filling up their plates way more than they need to and um just like how the unlimited portions here since it's a buffet can affect people too and like it makes it a lot harder for self-control and when you're not in a place with a buffet I think it's a lot easier um to control yourself. And when there is dessert out all the time . . . food is some of my weakness.

Similarly a senior expressed, "I don't like going [to the buffet-style eatery] because I'm going to want fries and then there's that like coffee machine and I'm going to want sugar and then there's like dessert so it's like a struggle."

Nutrition Expressed through Moderation/Balance

When asked about a theology of nutrition or how to eat well, every focus group referred to the importance of moderation and balance. Six of the eleven participants (55%) from the specific nutrition course articulated the importance of balance or moderation when consuming food. Humans are given taste buds to enjoy food, so

energy-dense foods are supposed to be enjoyed but in moderation. Students also articulated the importance of a balanced diet. A good mix of vegetables, fruit, proteins, and fats were identified as important aspects when creating a meal in the buffet-style eatery. In the post-test evaluation, a student enrolled in a nutrition course explained,

Processed foods are often unhealthy, yet when consumed in moderation processed foods are not entirely terrible. In nutrition class we have discussed the importance of moderation and living a well-balanced lifestyle. Occasional indulgences in not-so healthful choices are not bad, but our diets should remain as natural and whole food-based as possible.

Theology of Nutrition Expressed as “Body is a Temple”

A common expression of a theology of nutrition came from 1 Corinthians 6:19, referencing the body as a temple. Three of the four focus groups mentioned the body-as-temple connection between faith and nutrition. Many students attending a CLA university view their bodies as temples, which requires them to care for the body by eating well. This concept connects to the theme of stewardship. Because their bodies are not their own but the Lord’s, students feel as though they must exercise self-discipline to deny what the body might crave in the short-term. In the focus groups, this theme often connected to a theme of missional purpose. Students expressed that the body is a gift used by God to further the Kingdom and do His good works in the world. Six of the eleven participants (55%) surveyed from the nutrition course identified a missional purpose for good nutrition. After a semester-long nutrition course, one student reflected,

I’ve become more focused on good nutrition and I hope that I can continue to improve in this area. Food impacts how our bodies work, and if our

bodies do not work or function to the best of their capabilities, we may become unable to perform acts or services that God has planned for us. I think that through combining good nutrition with exercise, we are not only honoring God with the gifts He has given us, but we are preparing our bodies to be healthy and able to go and do whatever God has planned for us.

Nutrition as Fuel

Students recognize the body's nutritional needs as a source of fuel for proper function. Three focus groups described nutrition and eating habits as "fuel" for the body. Seven of eleven participants (64%) from the pre-tests and post-tests expressed the theme of nutrition serving as fuel for the body. The theme of nutrition as fuel appears more transactional. One senior student articulated,

I definitely say I think of it as like your body's fuel like um an illustration given to me was like imagine your body as a car that's the fuel like whatever you are putting into it good fuel bad fuel it's going to affect how it functions/works . . . how long it lasts and if it has problems.

Community and Disordered Eating

Two significant themes that emerged were community and disordered eating in a CLA university. Two of the four focus groups discussed the importance of community in great detail, reflecting a deeper understanding of a theology of nutrition. Through this research, two groups addressed the struggle of disordered eating, which prevents students from entering into community and thereby creates isolation and an unhealthy relationship with food. One freshman student articulated,

And I think there definitely is like a community aspect to eating like coming together and eating good foods like what you were saying is good like as far as like delicious and good as far as nutritional is meaningful you can connect with people. So like I know people who have eating disorders and like that's hindering you from that social aspect but if you're like too focused on the food and not on the people like that would also hinder you...hinder that. So like a lot of cultures come together with food and so I think it's like a huge tool for us to use to connect with people.

The National Eating Disorders Collaboration (NEDC) (2017) defined disordered eating as “disturbed and unhealthy eating pattern that can include restrictive dieting, compulsive eating or skipping meals” (para. 1). The NEDC further explained, “Disordered eating can include behaviours which reflect many but not all of the symptoms of feeding and eating disorders such as anorexia nervosa, bulimia nervosa, binge eating disorder, other specified feeding and eating disorders (OSFED) or Avoidant/Restrictive Food Intake Disorder (ARFID)” (para. 2)

The struggle of disordered eating was expressed by another student:

Yeah I started like really obsessing over my weight and like it got really unhealthy I was like I guess I feel like it just went way too far. But I stopped being vegan 'cause it was really stupid and I didn't enjoy anything I actually ate anymore and just did regular vegetarian. But I feel like here at [the university] I haven't really been influenced at all like in any way for my nutrition. [The basic required health class] didn't really teach me anything.

Conclusion

These findings reveal the vast experiences students have with food on a university campus. Students need proper education to develop a sound theology of nutrition and access to healthy food choices to encourage practice of their own theologies of nutrition. Some students view nutrition through the lens of moderation and fuel while others view it as a spiritual practice. The following themes emerged from this research: (a) Nutrition Education Positively Impacts the Development of a Theology of Nutrition; (b) Challenges to Healthy Eating on Campus; (c) Nutrition Expressed Through Moderation/Balance; (d) Theology of Nutrition Expressed as “Body is a Temple”; (e) Nutrition as Fuel; and (f) Community and Disordered Eating. The CLA university is a place for students to deconstruct improper theologies of nutrition and develop correct theologies of nutrition through proper education and food provided for students. The university reveals what is important to Christian living, which needs to be carried out in the nutritional experience and education of students.

Chapter 5

Discussion

The purpose of this study was to examine how students' experiences at a CLA university impacted their theologies of nutrition. As the focus of a CLA university is to create well-rounded, Christ-honoring students who pursue God's goodness, truth, and beauty in every aspect of life, the daily sustaining ritual of eating requires educational development. Three questions were addressed in the current study:

- i. How do students' experiences at a CLA university impact their theology of nutrition?
- ii. Does a theology of food change eating habits?
- iii. Does taking part in a nutrition course change an individual's food choices compared to those who do not take a nutrition course?

Review of Major Findings

The research did not reveal a significant change in students' theologies of nutrition from freshmen to senior year. Attending the CLA university for approximately three years did not aid in the development of students' theologies of nutrition, yet enrollment in a nutrition course that emphasized a holistic approach to food was a reported determinant. With a more developed theology of nutrition, students were able to share how they make wise food choices while at the university. Students with education in a specific nutrition course asked critical questions such as "What am I actually eating?"

How will this affect my body? How am I stewarding the gift of food?” Having a deeper understanding of their role in the food economy produced healthier eating habits.

The required general health class at the CLA university addresses surface level body functionality aspects of nutrition but ignores that which encourages a deeper theology. Individuals not enrolled in a nutrition course felt left to navigate the gift of food and faith on their own. One freshman stated, when asked about how the university experience shaped her understanding of a theology of nutrition, “I think that it’s like made me more aware of what I’m eating, but I don’t think I’ve learned anything.”

A significant part of holistic development may be missing in CLA education. The CLA university maintains an unhelpful atmosphere for students attempting to navigate and develop their understanding and personal theology of nutrition. Most students transition from having meals prepared for them at home to learning how to eat well on a university campus. In this transition, the university has the opportunity and responsibility to educate students on the goodness of food and the joy of eating. Cortez (2008) noted the necessity of the body in holistic development: “The body, the second moment, denotes that which executes the decisions of the soul, displays the attitudes developed by the soul, and represents outwardly the interiority of the subjective self” (p. 6).

Students are disconnected from the impact food can have on their own wellbeing. Humans need to eat to fuel the body, but it is more than simply fuel. Food is also a gift and a way to connect to the Creator through His provision of food. If students are unaware of this reality when they leave the university, they lack understanding in an area of life that is fraught with misunderstanding and consequently can be the root of sadness,

disappointment, and serious mental health issues (Gómez-Pinilla, 2008). Without a holistic view of food, students miss the gift of provision, community, and creation.

Students also seem disconnected from the purpose and intention of food as evidenced by the participant noted in Chapter 4 who used the car analogy. Pollan (2008) expressed, “Food is also about pleasure, about community, about family and spirituality, about our relationship to the natural world, and about expressing our identity” (p. 8). Thoughtlessly consuming food leads to disconnection from God in these areas of life. CLA universities should understand and support students’ need to experience their creator through the gift of food. These institutions must find a way to communicate the importance of the body beyond simply being a “temple” in order to encourage the development of a theology of nutrition. Buchanan (2006) wrote,

One thing Jesus did in the Eucharist was to connect, in a vivid and simple way, eating with obedience and worship. He joined earth with heaven, bread with manna, flesh with Spirit. He linked physical hunger with spiritual hunger. He reminded us that every bite is also a prayer. (p. 174).

CLA universities may promote an environment they do not intend to promote. In the current study, the majority of student perceptions revealed the cafeteria provided an abundance of unhealthy, unsustainable foods coupled with a range of nourishing foods. As research on cafeterias by Seward and colleagues (2016) revealed, “Among entrees (both vegetarian and meat) available in the cafeterias, 38% were green, 20% yellow, and 42% red. Among beverages available in the cafeterias, 15% were green, 20% yellow, and 65% red” (p. 1810). Consequently, the most available foods on some college campuses are in the unhealthiest categories. Food choice is determined, in part, by food

availability. As such, a barrier to making healthy food choices on CLA university campuses may be, at least in part, the fault of the university.

Implications for Future Research

The study of nutrition is a research topic within higher education as indicated in the literature review. However, the development of a theology of nutrition among university students is not specifically researched, revealing a gap in the literature. This study addressed this gap by exploring students' lived experience while attending a CLA university.

One area of further study is disordered eating. During focus group interviews, there surfaced the consistent theme of women acknowledging a history of disordered eating or having an eating disorder. According to the Emily Program Foundation (2015), disorders affect up to 30 million Americans. At some point, these individuals convinced themselves that disordered eating was a way of stewarding the body. Some participants expressed deep struggles in their relationships with food. Further research might explore how disordered eating affects students' social interactions and pushes one further away from community.

Gender was identified in this study, but the impact of gender was not explored in this study. Participants referenced differences between male and female expectations and experiences with food, but the potential effects of gender were not explored. According to Counihan and Kaplan (1998),

. . . for over eight centuries European and American women have refused food as a path to achievement and mastery in a world over which they have had few other

means of control. Today, modern anorexics starve themselves, sometimes to death to achieve physical and spiritual perfection. (p. 6)

Implications for Practice

Another area of further study and practice includes exploring how food service providers can educate beyond simple nutrition facts, as well as implementing a restructuring of the cafeteria. “The physical settings within the community influence which foods are available to eat and impact barriers and opportunities that facilitate or hinder healthy eating” (Story, Kaphingst, Robinson-O'Brien, & Glanz, 2008, p. 255). For example, desserts and higher-energy density foods placed farther from student traffic might potentially reduce consumption. Placing nutritious foods in more central traffic locations provides opportunities both to educate about nutritious foods as well as to prioritize their consumption based on location. Offering examples of well-balanced meals and serving them together offers students an educational experience in creating or building a meal for themselves. Cafeterias might also consider implementing a traffic light labeling system as demonstrated by the research of Seward and colleagues (2016) so students become aware of the healthy and unhealthy options. Labeling the nutrition facts for each entrée served also creates a helpful atmosphere for students to think critically about what they consume.

A balance—which emerged in the present study as a main theme addressed by the student participants—needs to be present in the dining experience. Cafeterias should offer foods that will be nourishing for students and present a small selection of foods that are unhealthy if consumed in large quantities. Providing students with good foods and nutritional information can encourage students to care appropriately for their bodies.

CLA university faculty should consider the incorporation of a nutrition-specific section into the core curriculum offered to freshmen that emphasizes the purpose and development of the mind, body, and soul. Similarly, the course described in the current study included a holistic approach to nutrition. The required health course did not seem to educate students on the development of a theology of nutrition but simply to understand the basics of properly fueling the body. Incorporating a nutrition-specific course or enhancing the basic health class to incorporate the formation of a theology of food is recommended. Incorporating texts such as *In Defense of Food* by Michael Pollan or articles from Wendell Berry, supplemented by *Come to the Table* by Lisa Graham McMinn, would provide a theological understanding of food that aids in the development of a theology of nutrition.

Part of the CLA experience is exploring what it means to be human and therefore should explore and develop daily practices such as eating. Discovering ways to connect students to the process of growing food encourages in them a deeper and more critical mindset when they consume food. Adding a garden that students tend as part of the curriculum could also provide a tangible experience with creation. Added emphasis is needed on many fronts to engage the spiritual through stewarding creation and acknowledging dependence on the Creator through His provision of food.

Limitations

While this study illuminated significant themes, limitations to this study need to be addressed. The first limitation is the demographics of the study. This research was conducted at a predominantly white CLA university located in the Midwest. The culture surrounding the dining experience is unique to this university. Gathering data from more

universities would provide a richer understanding of students' theologies of nutrition across the nation. Furthermore, the typical food selections provided by the university reflect the Midwestern diet. The Midwestern diet is richer in meats and potatoes, whereas the East Coast diet might consist of more fish. Similarly, the South may incorporate more deep-fried food options. The location impacts the dietary norms and therefore what is provided for students. As theology impacts eating habits and choices, healthy food choices will look different for individuals from different areas of the country. Each focus group only involved 3-6 participants, with 12 out of 22 (55%) participants from a specific nutrition course. A larger pool of students may provide a more representative perspective of the student body at large.

The study design also limited the validity of the current findings. As the study was cross-sectional, the design did not permit the analysis of the development of nutrition theology of a particular cohort, which was instead inferred by testing students at different stages of their time at the university. A longitudinal study would provide a more exact representation of a student's development over their four years. Due to the time limitations of the researcher's program of study, a longitudinal design was not possible; a cross-sectional study was therefore chosen.

Conclusion

The guiding questions for this study were as follows: How do students' experiences at a CLA university impact his or her theology of nutrition? Does a theology of food change eating habits? Does taking part in a nutrition course change an individual's food choices compared to those who do not take a nutrition course? Six main themes emerged from this study: (a) Nutrition Education Positively Impacts the

Development of a Theology of Nutrition; (b) Challenges to Healthy Eating on Campus; (c) Nutrition Expressed Through Moderation/Balance; (d) Theology of Nutrition Expressed as “Body is a Temple”; (e) Nutrition as Fuel; and (f) Community and Disordered Eating. The findings show that a relationship with God through awareness of eating as a spiritual practice is not strongly evident in the average student.

Most students attending a CLA university do not have a well-developed theology of nutrition. A spiritual practice in which students engage multiple times per day needs more attention and development encouraged by the university. Buchanan (2006) offered a significant warning as humanity engages with food:

Be careful when you eat well. Be careful when God lavishes wealth on you so that feasting is your daily experience. Be careful lest you come to expect it. Be careful when those days of testing and refining and humbling and disciplining that hunger brings are long forgotten. Be careful when the days of having to look to God for daily bread and water from the rock are a murky memory, faintly embarrassing. (p. 165)

Nutrition is not simply about the nutritionism mindset that breaks food down to chemicals and nutrients (Pollan, 2008). Nutrition requires proper theology to understand ourselves in relation to the creator. The CLA university cannot ignore the significance of food in students’ everyday lives. The essence of this research emerging from the themes is that, through holistic nutrition courses and proper provision of healthy foods as part of the dining experience, students have the opportunity to develop a deep theology of nutrition that draws them closer to the Creator and Sustainer of life.

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Appendix A

Research Participant Consent Form

Analysis of the Impact a Christian Liberal Arts University has on a Student's Theology of Nutrition

You are invited to participate in a research study of the impact a Christian liberal arts university has on students' theology of nutrition. You were selected as a possible subject because of the specific class you are in and your age. We ask that you read this form and ask any questions you may have before agreeing to be in the study. The study is being conducted by Lauren Miles, Graduate Assistant (MAHE).

STUDY PURPOSE

The purpose of this study is to analyze the impact attendance at a Christian liberal arts university has on students' development of a theology of nutrition as well as understand if nutrition education changes eating behavior.

NUMBER OF PEOPLE TAKING PART IN THE STUDY:

If you agree to participate, you will be one of approximately 16-64 subjects who will be participating in this research.

PROCEDURES FOR THE STUDY:

If you agree to be in the study, you will do the following things:

Participate in a focus group with three to five other students in your course and the researcher. This is a one-time occurrence and in total should take no more than 90 minutes. These focus groups will be recorded through audio taping. Or fill out a pre and posttest survey of your personal experience with food and your approach to nutrition.

RISKS OF TAKING PART IN THE STUDY:

While in the study no risks are anticipated students may experience discomfort with expressing or describing one's thoughts and experiences with nutrition.

BENEFITS OF TAKING PART IN THE STUDY:

The benefits to participation allow students to put words to their beliefs and actions surrounding food. Students also would be helping to expand the currently limited knowledge about the relationship between the Christian liberal arts and a theology of nutrition

CONFIDENTIALITY

Efforts will be made to keep your personal information confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Your identity will be held in confidence in reports in which the study may be published. Tape recordings of interviews will be destroyed following their transcription.

Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the study investigator and his/her research associates, the Taylor University Institutional Review Board or its designees, the study sponsor, Lauren Miles, and (as allowed by law) state or federal agencies, specifically the Office for Human Research Protections (OHRP) etc., who may need to access your research records.

CONTACTS FOR QUESTIONS OR PROBLEMS

For questions about the study or a research-related injury, contact the researcher Lauren Miles at lauren_miles@taylor.edu or 815-978-7912. If you cannot reach the researcher during regular business hours e.g. 8:00AM-5:00PM), please contact Matt Renfrow at mtrenfrow@taylor.edu or 765-998-5183

VOLUNTARY NATURE OF STUDY

Taking part in this study is voluntary. You may choose not to take part or may leave the study at any time. Leaving the study will not result in any penalty or loss of benefits to which you are entitled. Your decision whether or not to participate in this study will not affect your current or future relations with Taylor University.

You participation may be terminated by the investigator without regard to your consent in the following circumstances: Extreme emotional distress in order to prevent further emotional trauma.

If you have any inquiries regarding the nature of the research, your rights as a subject, or any other aspect of the research as it relates to your participation as a subject can be directed to Taylor University's Institutional Review Board at IRB@taylor.edu or the Chair of the IRB, Susan Gavin at 756-998-5188 or ssgavin@taylor.edu.

SUBJECT'S CONSENT

In consideration of all of the above, I give my consent to participate in this research study.

I will be given a copy of this informed consent document to keep for my records. I agree to take part in this study.

Subject's Printed Name: _____

Subject's Signature: _____

Date: _____

Printed Name of Person Obtaining Consent: _____

Signature of Person Obtaining Consent: _____

Date: _____

Appendix B

Protocol Questions

FOCUS GROUP QUESTIONS

1. What does nutrition mean to you?
2. What would you consider “good” food and drink choices?
3. How do you choose what you eat for each meal?

Breakfast

Lunch

Dinner

4. Do the foods you eat have certain effects on you? If so, how?
5. How has your understanding of nutrition been shaped? Has your education/experience in college affected your understanding of nutrition? If so, how?
6. Does your relationship with Christ impact your food choices? If so, how? If not, why not?
7. How would you define your own Theology of Nutrition?

PRE/POST-TEST QUESTIONS

1. What is your theology of nutrition or your philosophy of nutrition?
2. How does your theology/philosophy impact the way you engage with food?

