The Impact of the Seventh-day Adventist Environment on Collegiate Adventists' Meat and Caffeine Consumption

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Running Head: MEAT AND CAFFEINE
## Table of Contents

### Abstract

1. The problems and definition of terms ........................................ 5  
   - The problem ........................................................................... 5  
   - Purpose of the study .............................................................. 5  
   - Statement of topics ............................................................... 6  
   - Basic assumptions .................................................................. 6  
   - Definition of terms .................................................................. 6  

2. Review of the literature .............................................................. 7  
   - Introduction ............................................................................. 7  
   - Health position: Biblical and early SDA ................................ 7  
   - Effects of meat ......................................................................... 8  
   - Effects of caffeine ..................................................................... 8  
   - Current SDA health .................................................................... 9  
   - Adventist teens surveyed ......................................................... 10  
   - Correlation of practices with spirituality .................................. 11  
   - Summary .................................................................................. 12  

3. Methodology ............................................................................. 14  
   - Research type .......................................................................... 14  
   - Subjects .................................................................................... 14  
   - Development of research instrument ...................................... 15  
   - Research instrument ............................................................... 16  
   - Pilot study ............................................................................... 17  

4. Presentation and analysis of data ............................................. 17
Abstract

The question of what collegiate Seventh-day Adventists (SDAs) believe and practice, and why, was addressed in a survey given to 175 students at Southern College of SDA that were baptized SDAs. Students were male and female, and ranged in age from 17 and up. The survey specifically addressed meat and caffeine consumption. Results showed a high degree of knowledge and belief, but a lower level of action based on beliefs. Chi-square testing using one degree of freedom at the .05 level of significance revealed a significant correlation of 5.20 between the amount of parochial education and practice of vegetarianism; results also showed adolescents having a higher tendency to avoid caffeine than their adult-aged collegiate peers, with a significant result of 9.15. It was recommended that a different approach be used when transmitting SDA health guidelines to members. Members should be taught that a relationship with God is primary, and that the right relationship would lead to the correct action regarding the principles that He has ordained for the best possible life.
The Impact of the Seventh-day Adventist Environment on Collegiate Adventists' Meat and Caffeine Consumption

Seventh-day Adventists (SDAs) have traditionally been known for their emphasis on healthy living, which includes restrictions on meat-eating to clean meats as described in Leviticus, strong support of a vegetarian lifestyle, and abstinence from caffeine and other stimulants. Additional support is given by the Biblical writer Paul, who stated that the body is the temple of the Holy Spirit. But like most religious groups, SDAs do not all practice all that has been preached. This was evident in recent studies of Adventist youth which tested their understanding and support of church beliefs. In one study, up to 50% of SDA youth surveyed reported that Adventists live what they believe, while up to 59% stated that SDA standards/rules are reasonable (Dudley & Kangas, 1990). In a study of SDA youth reported in 1985, Roger and Peggy Dudley noted that some of the Adventist lifestyle values are unclearly defined, and that members have not been particularly effective in teaching some of these values to the youth (Dudley & Dudley, 1985).

Current studies have focused mainly on academy/high school aged youth, while collegiate SDAs have been ignored. Simple observation revealed that a large portion of collegiate Adventists regularly drink caffeine drinks and eat meat. This study sought to find out some of the reasons for SDA college students' low emphasis on the specific healthy living standards
of the Adventist church. A questionnaire was formulated to find out demographic information, family health practices, amount of SDA education, beliefs, and current practices of college SDAs as to caffeine and meat consumption. Time constraints precluded the researcher from including other participants than local students of Southern College of SDA. Additionally, similarly important health topics such as sugar and fat consumption and exercise could not be included in this study.

Beginning assumptions were that the students may not be aware of the importance of a healthy lifestyle due to insufficient education by parents, teachers, and/or pastors. Students may also be practicing less-than-desirable health habits due to convenience or indifference.

Definition of terms

The intent here is to clarify words that have often been used in a different sense from the one intended in this study. However, some terms may be used differently within referenced material than in the rest of the paper.

Adolescent: A person in this study, male and/or female, ranging from age 17 to 19.

Adult: A person in this study, male and/or female, ranging from age 20 and up.

Guideline: A recommendation made, based on general principles, to promote optimum functioning; in this study, the focus is on SDA guidelines for healthy living.
SDA: A member of the Seventh-day Adventist Church.

Standards: A term used in referenced material in this study; the meaning is similar to guidelines, intended to describe SDA applications of general principles.

Review of the literature

A thorough study of applicable literature revealed a wealth of information regarding SDA health guidelines: explanations of early SDA health reform principles, several studies of high school-aged Adventist youth, and discussion of current Adventist practices regarding healthy living guidelines.

The health message

In his book, *The Health Message*, William Branson traced Adventists' development of health reform, including key statements from SDA authors such as Ellen G. White. Tea and coffee drinking was described as a sin, an injurious indulgence which injures the soul. The use of certain meats followed the principles given in Leviticus, which specified that clean meats come from animals which have a cloven hoof and chew the cud. Appropriate fish must have fins and scales. Early Adventists believed that it a duty and a privilege to keep fit and undefiled, and also appreciated the fact that God has made known to us that certain animal foods are unhealthy and produce disease, making them unfit for food (Branson, 1955). Ellen White stated that:

*We have no right to wantonly violate a single principle of*
the laws of health. Christians should not follow the customs and practices of the world", and that "Those who have received instruction regarding the evils of the use of flesh foods, tea and coffee...and who are determined to make a covenant with God by sacrifice, will not continue to indulge their appetite for food that they know to be unhealthful (White, 1923, p. 127).

Effects of meat eating

Regarding meat eating Ellen White says, "The liability to take disease is increased tenfold by meat eating. The intellectual, the moral and the physical powers are depreciated by the habitual use of flesh meats." Additionally, meat eating "deranges the system. beclouds the intellect and blunts the moral sensibilities. Your safest course is to let meat alone" (White, 1951, p. 70). Science corroborates some of these conclusions. Research has shown that meat eating is related to deaths from heart disease and diabetes: the more meat eaten, the greater the risk (Durand, 1987).

Effects of caffeine

Studies generated to trace the effects of caffeine on the human body have noted that: caffeine can impair short-term memory by about 20%; it can exacerbate panic attacks; it acts as a diuretic, thus dehydrating the body and washing away essential salts; and it accentuates heart rhythm problems (Casey, 1986). Dr. Winston J. Craig listed several effects of caffeine on the
brain and nervous system, body chemistry, the heart, and circulation. He concluded that "for better physical health and mental soundness, reason and good judgment would dictate nonuse of these beverages" (Craig, 1981, p. 13). Caffeine spreads through the body in about five minutes, where it affects moods, sleep, alertness behavior and perception. Caffeine can potentially cause birth defects, as well as aggravate symptoms of premenstrual syndrome, raise blood pressure, increase headaches and stimulate the stomach lining to release acid, which causes ulcers (Stanton, 1991). Ellen White spoke of similar effects when she wrote of tea and coffee that:

> Its influence is exciting, and just in the degree that it elevates above par, it will exhaust and bring prostration below par...Tea and coffee do not nourish the system. The second effect of tea drinking is headaches, wakefulness, palpitations of the heart, trembling of the nerves, with many other evils (White, 1951, p. 87, 88).

**Current Adventist health**

An article in *Adventist Review* quoted research which showed that SDAs overall are currently living seven years longer than the general population; however, those who faithfully follow church health standards live 12 years longer. Half of SDA membership follows a vegetarian diet; nearly 70% abstain from coffee. In his discussion of these facts, Eugene Durand suggested that when people leave out the physical aspect of God's
plan for us, they are counteracting what God is trying to do for mankind.

Our health message is designed not only to help us live longer but to give us clearer minds to discern spiritual things. Could it be that many of us are caught up in a vicious circle whereby our unhealthful habits have clouded our minds so we can't appreciate the very health message that would give us spiritual discernment? (Durand, 1987, p. 4).

A comparison of SDA lifestyle guidelines with goals the United States has set for the year 2,000 shows that SDAs may be farther along regarding healthy living than the general public, due to Ellen White's counsels. But have SDAs followed the large amount of information that they possess as well as others outside the SDA church have followed their limited knowledge? It appears that Adventists are regressing in health reform while the world catches up in areas such as meat consumption and health promotion. "Shall we leave the government to pick up the torch that we have dropped?" (Bosley, 1991, p. 17).

Adventist teens surveyed

A 1985 study of baptized SDA teenagers showed them to be more traditional, unrelated to their time in Adventist schools and with little gender difference. Of those surveyed, 58% saw vegetarianism as a preferred lifestyle. The authors of this study were concerned over the fact that Adventist education has
not had more of an impact on value outcomes. They also discussed the fact that a legalistic approach is ineffective in values education. Instead, the youth must be confronted with values issues and engaged in principled reasoning (Dudley & Dudley, 1985). Later research in this same age group focused on specific church standards and the attitudes toward them. Family influence on church standards was stronger overall than that of the church and school. Regular family worship was shown to influence lifestyle choices such as eating unclean meats, which had agreement with church standards of up to 67%. Only 36% agreed with the statement that SDA lifestyles are superior, while 23% felt that good SDAs have less fun. The highest correlation of the study showed that those who intend to remain SDA have a higher degree of concurrence with SDA standards. Encouragingly, the best agreement on church standards was on health issues, yet one quarter disagreed or were uncertain of traditional health teachings, even though the teachings have been strongly confirmed by modern science. A strong 52% percent of participants in this study agreed with the practice of vegetarianism (Dudley & Kangas, 1990).

Correlation of practices with spirituality

Although many people have excused their unhealthful practices by saying that health habits have nothing to do with spirituality, Ellen White seemed to believe otherwise. She emphatically counseled believers to "Let none who profess
goddiness regard with indifference the health of the body, and
flatter themselves that intemperance is no sin, and will not
affect their spirituality. A close sympathy exists between the
physical and moral nature" (White. 1951. p. 67). A non-Adventist
epidemiologist showed agreement in this statement: "The more
adherent Adventists are also vegetarians who don't...use
caffeine, so it is hard to separate out the effects of
religiosity from the effects of living habits" (Durand. 1987. p.
4). Mrs. White explained that salvation cannot be secured by any
program of life as related to physical habits, but "we may so eat
and drink as to lose our spiritual perception, resulting in
separation from God and eternal loss at last" (Branson. 1955. p.
7). She believed that acceptance of God's righteousness would
lead the believers to a conscious regard for the physical laws
which He has established. Solomon also wrote of the connection
between loyalty to God and physical well-being (Branson. 1955).

Summary of literature review

The literature review focused on five main areas: The
original SDA health message; the effects of meat and caffeine;
current SDA health; surveys of SDA teens; the correlation of
health practices and spirituality. Summarized below are some
significant findings taken from each section.

SDAs based their original health beliefs largely on the
testimony of Ellen G. White, whom they believed to be God's
inspired messenger. She described tea and coffee as "sinful" and
advised SDAs to "let meat alone" (White, 1951, p. 70).

Meat and caffeine each produce negative effects in the body. Meat can cloud the mind and blunt moral sensibility. It has also been known to carry diseases which are passed on to humans. Caffeine is known for its stimulating effect on the nervous system. It also effects body chemistry, the heart, and circulation.

Current studies on the SDA population show that SDAs as a whole live seven years longer than the population average, while those that closely follow church standards live up to 12 years longer. The health message was given to promote clearer minds for God's people to discern spiritual things. One author noted that SDAs are apparently regressing in their health practices, while the world is catching up.

SDA teens were surveyed, and researchers noted a less than desirable impact of health education on these teens. The legalistic approach to health education has been found to be ineffective. One study on church standards found the strongest agreement with church teachings in the area of health standards. The family was cited as the strongest overall influence on behavior and beliefs.

The writings of Ellen G. White discussed the strong correlation between spirituality and health practices. She described the close relationship of the physical and moral natures, and stated that acceptance of God's righteousness would
lead to acceptance of the laws He has given. Other authors cited supported this correlation.

Methods

Research Type

The questionnaire developed by the researcher, in conjunction with advice from the jurors, was designed to solicit genuine beliefs and attitude indicators from the subjects. Therefore, there were no right or wrong answers. Subjects were encouraged to mark the answers that showed their honest responses. It was hoped that this exploratory type of research would provide important evidence of some of the problems in traditional Adventism's methods of educating its members, particularly the youth, about the guidelines of the church and their importance. No specific hypothesis was set out, as the aim of the researcher was to find opinions and beliefs which would indicate the impact of Adventism upon this generation of collegiate Adventists.

Subjects

The participants in this study were 175 Southern College students which were baptized SDAs. Non-members were requested not to participate. Freshmen, Sophomores, Juniors, Seniors, Postgraduate and Special students were included; their ages ranged from 17 and up. The subjects were not notified ahead of time that they would be surveyed. The researcher simply arranged with several teachers to administer the questionnaire during
class time. To protect the validity of the study, the researcher chose classes that would be taken by students with a variety of backgrounds in terms of major field of study, age, and grade level. The 175 participants were taken from the following courses: 33 from American History I (pilot study), 56 from Christian Ethics, 18 from English History, 41 from Developmental Psychology, and 17 from Intermediate Spanish. All but one group, Developmental Psychology, received instructions and had their questionnaire administered by the researcher. The researcher had a scheduling conflict with the Developmental Psychology class time, but the teacher of this course, Dr. Ruth Williams-Morris, agreed to administer the questionnaire. She was given a set of printed instructions from the researcher to read to the students before they completed the questionnaire, thus assuring uniformity in procedure.

Development of Research Instrument

The questionnaire was developed by the researcher and modified according to comments made by a panel of nine jurors, members of the Southern College faculty and Collegedale SDA Church pastoral staff. This process was intended to provide feedback from professionals in a variety of backgrounds and disciplines. They who were requested to make changes relating to grammar, clarity and relevance. The jurors were chosen by the researcher, after recommendations from the directed study advisor Phil Garver, Ed.D. Initially, a rough draft questionnaire was
developed by the researcher, then copies were printed and hand-delivered to each juror, along with a letter explaining the purpose of the study and asking for participation in the jury process. All jurors agreed to participate, and the researcher arranged to pick up the marked questionnaire in a few days. After editing by the jury, the researcher collated comments and changes and edited a new draft. This process happened three times, resulting in a survey comprised of 22 multiple-choice questions.

Research Instrument

The final questionnaire included a title heading which read, "The Impact of the Seventh-day Adventist Environment on SDA College Students' Meat and Caffeine Consumption." Below the title was a note reminding students to participate only if they were baptized SDAs. The questionnaire was composed of 22 multiple-choice questions relating to SDA guidelines on meat and caffeine. Demographics, years of SDA education, knowledge, beliefs, practices, family habits and intent to change were also included. The questionnaire was photocopied onto 8-1/2" x 11" transparent sheets, so that it could be administered on an overhead projector. This method was followed primarily to cut down on research costs. The questionnaire was printed in bold, extra large print to insure that all participants could read it easily. A hard copy was available for students who still could not read the instrument, or who were late for that class period.
Pilot Study

A pilot study was performed before the main study, in order to identify further weaknesses and discrepancies than those noted by the jury members. The pilot study was conducted in Dr. McArthur's 18-member American History class. Scantron sheets and pencils were provided for recording responses. The researcher was introduced as a Southern Scholars student. She then gave the students specific instructions about marking the Scantron sheet anonymously, writing reactions and comments on the back, and only participating if a member of the SDA church. The pilot study proved to be quite helpful. One student pointed out that one question had seven responses, while the Scantron sheet only had room for five. This question was later edited: similar response choices were combined, while unnecessary choices were deleted. Several other students noted that the Yes/No responses provided for several questions didn't give them room to indicate responses such as "Occasionally." This observation was also made by a jury member during the final evaluation. Several minor changes were made after the pilot study, while the overall structure remained the same.

Results

The results from the first few demographic-type questions showed 33% of subjects to be ages 17-19, or in the adolescent category. The two older groups, ages 20-22 and 23+, were grouped together in a non-adolescent group for purposes of statistical
calculations of data. There were 67% in this category. The subjects were largely female, with 62% comparing to 37% for male participants, as shown in Table 1 (see page 50). Raw scores are listed in Table 2 (see page 51).

Questions relating to SDA background revealed that 89% of those surveyed had been raised in an SDA home, beginning before age 12. Over half, or 55%, stated they have had 13+ years of SDA education. While 42% grew up in a vegetarian family environment, up to 48% used clean meats "occasionally" or "often." Over half of the subjects reported family caffeine use while they were growing up. The two responses "Yes" and "Occasionally" were combined for a total of 60% with caffeine usage. With 92% responding that they considered themselves practicing Adventists, an even higher 94% responded that they were aware of SDA guidelines on meat and caffeine. Apparently, 2% of subjects were admitting that they were aware of the guidelines, but for some reason were not practicing SDA teachings.

Parents were cited as the major information source of SDA guidelines, with 60% stating this fact. SDA teachers were next, with 22%. A large 73% stated that these guidelines are supported by "all of the above," which included the Bible, Ellen G. White's writings, and scientists and nutritionists. Of students
surveyed, 44% stated their belief that meat and caffeine use is not linked to salvation, while 20% thought they should act on what they know. This may indicate a prevailing attitude that actions are not necessary for salvation, beliefs are sufficient.

The questionnaire asked students about the relevance of the SDA health position on caffeine, and the SDA emphasis on vegetarianism. Respondents indicated a 75% approval of the SDA position on caffeine, and showed 85% support of emphasis on vegetarianism.

In comparing family meat consumption with present meat consumption, one major shift was noted. Results were consistent for vegetarians, with the nearly identical 41% that are presently vegetarians comparing with 42% that were raised so. The shift came when comparing use of clean meats while growing up with present consumption. Overall use currently was 54% as compared with 48% while growing up. But that came by combining regular and occasional use. Occasional use more than doubled, while regular use decreased almost to a third. This would suggest a flip-flop of meat-eating practices from childhood to adulthood, which could have been influenced by freedom from parental guidance, increased health education or religious considerations.

Reported caffeine use showed a similar shift in practices from childhood to adulthood. The 38% raised without caffeine use has decreased to 17% who never use it. And so although a majority of collegiate SDAs were aware of the guidelines on
caffeine use and consider themselves practicing SDAs, up to 45% reported caffeine use anywhere from "once weekly" to "daily." An additional 34% reported using caffeine "occasionally, such as when trying to stay awake." That gave us a total of 79% caffeine use, an increase of nearly 20% from the 60% while growing up.

The participants were asked to explain their meat and caffeine practices in two questions, #18 for those who don't follow the guidelines, and #19 for those who do. The main reason cited for not following SDA guidelines on meat and caffeine was that guidelines were "inconvenient and/or unimportant." This received a response of 18%. This 18% was out of a total of 56% that this question applied to. So in reality, nearly one third of non-compliers felt this way. The reversed question, #19, asked subjects why they do follow the meat and caffeine guidelines. The highest response was given by 21% who stated they are concerned about their health, followed by 13% who believe the guidelines are medically sound. One third, or 33%, responded that this question did not apply, meaning they used meat and/or caffeine outside of SDA recommendations or guidelines.

Half of those surveyed felt SDAs spend too little time educating members about health. This number was balanced out by 38% who said SDAs do about enough health education. An encouraging 80% reported they are presently striving to improve their health habits. This dropped when meat and caffeine were
mentioned specifically: 31% said they planned to decrease their use of these substances, while 33% planned to maintain current habits.

Chi-square testing was performed to test independence of a few significant variables. One degree of freedom was used at the .05 level of significance. Testing to evaluate the correlation of gender with vegetarianism fell below the required level of 3.84 for statistical significance. Two significant results were additionally obtained.

The first significant chi-square test sought to compare the amount of parochial education with the practice of vegetarianism. The object of this test was to determine if increased parochial education would enhance commitment to the vegetarian ideal of the Seventh-day Adventist church. Results showed a correlation of 5.20; those with nine or more years of SDA education were more likely to choose a vegetarian lifestyle, abstaining from even clean meats, than their counterparts with up to eight years of SDA education. Only 21% of the low-parochial group are vegetarians, compared with 46% of the high-parochial group.

The second significant chi-square test evaluated the correlation of age and caffeine use. The three age categories in the questionnaire were limited to two: adolescent and adult. This was done to find out whether SDA adolescents would be likely to adjust their health practices when they reach adulthood, and in which direction. Those above age nineteen were placed in the
adult category. For this test, caffeine use included even "seldom...such as when trying to stay awake." The results showed a correlation of 9.15: adolescents of ages 17-19 in this study were more likely to reject caffeine use than the adults surveyed. 35% of adolescents surveyed do not use caffeine, while only 13% of the adults surveyed reject this substance.

Discussion

The research project began as a quest for the reasons why so many college SDAs use meat and caffeine products, despite a wealth of counsel against it, which indicates the potential for harm. The results have shown that these collegians have many reasons why they do or do not use meat and caffeine. Their survey responses and hand-written comments have been very helpful in clarifying the position the church needs to take to strengthen its position on the traditional health guidelines of the SDA church.

Participant Comments

Almost more interesting and more enlightening than the actual questionnaire were the candid comments which respondents wrote on the back of their Scantron sheets (See Appendix D). They wanted to explain some of the reasoning behind the answers they gave.

Several students commented that their health practices were okay in their mind, as long as they practiced moderation. They seemed to disagree with the statements by SDA author Ellen G.
While that using caffeine and meat substances is sinful and also with the idea that people should practice what they know to be true. One student responded to question 15 with the following statement: "I don't feel the rules are impractical or inconvenient; I just don't see anything wrong with eating (meat) and drinking (caffeine) if not done in excess." Another spoke to question 16. "I don't know how often I consume caffeine because it is not an important issue. I realize that if used in overabundance it is harmful but I don't fall in this category."

Other respondents wrote about the idea that the body is the temple of God, and that it is a duty to respect it and keep it in the best condition possible. "The SDA church's guidelines as far as health is concerned are based on the idea that we need to keep our bodies in good health. 'Our bodies are the temple of God,'" explained one. Another felt that "Caffeine applies as my body being God's temple. That is why I refrain, not because of any church mandate."

There was a strong reaction to the idea of health practices being linked to morality and/or salvation. Student comments disagreed with this concept. "We are supposed to take care of our body: it is God's holy temple. It is also good for our health and well-being that we limit our caffeine and meat consumption, although I do not believe that it is necessary to not eat and drink these things in order to gain everlasting life," said one. Someone else felt that "Being a vegetarian does
not necessarily mean your diet is more healthful. Eating meat can provide good nourishment. The Bible is not against meat consumption. It promotes a balanced, healthy diet and lifestyle and I believe it is the individual's choice, not a matter of salvation."

It became evident that although the survey results noted a large percentage practicing either vegetarianism or the SDA clean meat standard, several respondents stated that they ate or avoided meat out of habit, and not due to the guidelines of the church. There was no uniform, consistent response of meat use or vegetarianism based solely on belief. Some students mentioned the impact of family upbringing. "I drink caffeine maybe three times a year and have eaten meat twice in my life. I don't have a taste for either." Or, "Well I think the survey is really okay but just because the church has a few rules about caffeine and meat doesn't mean I'm necessarily going to change my habits."

"It's difficult to change from the way I was brought up."

Referring to question 19, "I don't eat meat because it tastes awful. I wasn't raised eating it, and it makes me sick to think of eating an animal." On question 17, "Yes, because I was raised as an Adventist veggie. But my grounds for remaining a veggie have nothing to do with SDA principles."

Comments were divided on the question of how much health education is needed for SDAs. Some felt we've done plenty of education, but not enough practicing. Others recommended a
stronger health education program, noting that we seem to be slipping in our health practices in recent years. Reacting to question 20, one person felt that "Enough time is spent but it is spent poorly. It is linked to salvation which I don't believe is right. New members are harped to death." Another stated that "Unfortunately, the strong beliefs of the SDAs, who were at one time in the forefront of health education, have taken a back seat to the issues of today." Practical advice was given, such as the statement, "I feel that the churches need to sponsor more cooking schools and put more emphasis on healthful living." Responses to question 20 noted that "I think that there is plenty of educating and not enough practicing of the health principles among SDAs," and "I believe we are providing quite a bit of information, but we could do a little more."

During the actual testing, participants often appeared defensive about their health practices. They verbally asked why the researcher chose to focus on this topic, when there were other more important topics, in their eyes. Written comments also reflected this reaction, which almost seemed like a guilt reaction. Respondents asked about sugar and fat, while attacking vegetarian meats as being more harmful than some home grown meats. One person avoided question 18 by saying, "I choose my own lifestyle." Another criticized the research topic, and asked, "Why not pick a topic like sugar consumption? The veggie meats are as bad for you as real meat (because of chemicals and
preservatives). These topics have been driven into the ground by SDAs. A similar feeling was shown by the one who said, "As for caffeine, I think there are many foods which are just as hazardous (or more) to an Adventist's health—sugar, salt, meat substitutes, dairy products, cholesterol."

These comments and others included in the appendices illustrate the complexity and range of opinions discovered in this small survey. The participants responded from so many different points of view that it would be difficult to find one statement to describe them all, or one solution to solve all of the problems they mentioned.

Conclusions

When this study first commenced, there were no projected conclusions, just a number of possible answers to the question of why so many SDA collegians at Southern College of SDA (SC) maintain an action gap between what they know and believe and what they choose to put into practice. The results showed several possible answers. It became obvious that the students surveyed had a wide range of reasons for what they believe and/or practice.

The question of whether SDA collegians at SC actually are aware of SDA health guidelines was answered with an affirmative majority. Large affirmative responses were also given to the question of relevance of the SDA health position on caffeine and vegetarianism. The conclusion can be drawn that these students
know and believe what their parents and teachers have been disseminating to them. But what have they done about practicing these guidelines?

First of all, they seemed to come up with lots of rationalizations and excuses. They pointed out the hypocrisy of those who taught them. They tried to make a case out of the problem that some people overemphasize action over belief in God, using this to explain why they have not yet followed all they have learned. Nearly half of the respondents felt that their health habits do not affect their salvation. This was disturbing, since the review of literature clearly contradicts that position. Can it be suggested that maybe those who have taught our young people were themselves unclear on the relationship between belief and action? Have they been teaching the guidelines of the church as mere rules, or options?

Although an encouraging percentage reported following vegetarianism or clean meat consumption, written comments indicated that this was largely due to habit, convenience, or personal preference, rather than from conviction. What would happen if preferences changed? Would their conviction ever impact their actions? If the question had been worded to indicate action based on conviction and commitment, the results would be predictably less encouraging.

Similar inconsistencies could be found on the caffeine data. A total of 79% reported caffeine use from "daily" to
"occasionally." although a majority of subjects overall reported awareness of caffeine guidelines and stated that they were practicing SDAs. The higher use of caffeine overall than meat may indicate a gradation of importance over the various health standards, the option to choose the lesser evils. Why must any evils be included at all? Why do SDAs not follow what they say they believe, regardless?

The chi-square statistical analyses brought both encouragement and discouragement. Encouragement came from the findings that adolescents had less caffeine use than the adult group. What led to the shift upon entering adulthood? Were they suddenly deprogrammed of all they had been taught? Had they not learned the true reason for following these guidelines, leading them to discard what maybe were seen as picky rules when they had the opportunity to make more of their own choices? The vegetarian/parochial analysis provided a brighter picture. Those with more years in SDA schools tended to follow vegetarianism more closely than those with less than nine years of SDA education. Might this not also extend to the other aspects of SDA beliefs and practices? Would longer exposure to the SDA environment strengthen the commitment to outreach, to morality?

An amazing fact revealed in the survey results was that the collegiate SDAs surveyed had a high percentage of knowledge and belief of the SDA health guidelines. A large majority supported the SDA position on caffeine and on vegetarianism. Also
receiving strong support was the question addressing the source of these guidelines. A high 73% felt the guidelines are supported by the Bible, Ellen G. White's writings, scientists and nutritionists. If the majority of those surveyed showed knowledge, support, and belief in the source of these guidelines, then why was the majority not following the guidelines? Those who answered that they were not following the guidelines gave inconvenience as their reason. Those who followed the guidelines gave concern for good health as the top response, followed by belief that guidelines are medically sound. Apparently, what God may want seems not to be the central factor in the decision-making process of some of these young people. This may show a lack of God-centered teaching when these values are transmitted to our young people, or a need for improved methods. A majority of those surveyed stated they were practicing SDAs, yet results of specific questions show that they are, or are not, practicing SDA guidelines for non-religious reasons. Many think that the SDA church has contributed greatly to contemporary health knowledge, but in the same questionnaire, they admitted that they personally do not follow all of this wonderful knowledge.

This research project was never intended to inflict guilty feelings upon those participating, but apparently some participants did feel guilty or defensive. This was noted in the reactions during the survey, when several students wondered aloud whose business it was if they ate meat or drank caffeine, and/or
tried to defend their position with written comments on the back of the Scantron sheets. Several felt that this topic was not weighty enough to warrant an entire survey; they tried to suggest a topic more important to them, such as the use of sugar or fat. The survey was not intended to promote emphasis of one area of health, but rather to take a small section of SDA health guidelines and get the pulse of the people regarding attitudes, beliefs, and practices in those two areas. An interesting conclusion to the study was shown in the last two questions. 80% of students responded that they were presently striving to improve their health habits. But when those who use meat and/or caffeine were asked about changing their habits, only 31% said they planned to decrease their use, while 33% planned to maintain current use. Seemingly, those who were already following church health guidelines plan to continue even more closely. But those who use meat and caffeine were reluctant or saw no need to give these substances up, regardless of their belief in the validity of these guidelines.

Several recommendations can be made for those who continue to educate the SDA youth on health beliefs. Ideally, SDA members would follow what they believe God is telling them, not the church. But they must first have a relationship with God and be willing to do what He says to them. Looking at this study, it seems that many students confused belonging to the church with having a relationship with God in which they follow what He says
is best for them. The two do not necessarily go together. Those teaching SDA beliefs should avoid overemphasizing one area of action at the expense of the rest. This leads to unnecessary criticism and guilt as members try to define which areas can be adjusted and which cannot. Each person who is honestly trying to follow God will make mistakes, but if he/she is committed, positive changes will occur in the process of sanctification. And in the end, God is the best qualified Judge of everyone's health practices.
References


Appendix A: Jurors

The following people were faculty members or pastoral staff at Southern College of SDA at the time of the study, and were chosen to evaluate the survey three different times during its creation. Their comments and questions guided the formulation of the final draft.

Phil Garver, Ed.D., Advisor
Diane Butler, M.A.
Ben McArthur, Ph.D.
Joi Richards, M.S.
Mark Bresee, M.Div.
Ron Springatt, Ph.D.
Ed Wright, M.Div.
Ruth Williams-Morris, Ph.D.
Wilma McClarty, Ed.D.
Appendix B: Correspondence

September 23, 1991

Holly Miller
P.O. Box 529
Thatcher Hall #235
Collegedale, TN 37315-0529

(615) 238-2235

Dear

I am a senior Psychology major with a Religion minor, and this year I am undertaking a Directed Study project to finish up my requirements in the Southern Scholars program. I would like to solicit your help in evaluating a questionnaire which will comprise the core of my study.

I want to explore the attitudes of SC students regarding caffeine and meat consumption. I also want to know if there is an action gap between what students know about SDA health principles, and what they actually practice. I hope that this study will encourage students to follow healthy lifestyles without making anyone feel condemned for their current behaviors.
On the following pages are questions similar to those which will be included in my questionnaire. Please read and evaluate each one, making any changes that you feel would enhance the clarity and objectivity of the study. Also, please add or delete any questions to improve the overall focus of the questionnaire. I need your help to be able to conduct an accurate and effective study. I want my questionnaire to be evaluated twice, so I hope you are willing to evaluate the questions again after I revise them.

I will be distributing these questions to several general education classes at Southern College of Seventh-day Adventists, in the hope of getting a wide variety of student responses. Thank-you for your help and suggestions. Please call me if you have any questions; otherwise, I will pick up your question list in a few days.

Sincerely,

Holly Miller
Dear Juror:

Thanks for your willingness to evaluate this questionnaire a second time. This time, please comment on the following:

- Title
- Questions 4 and 5: Are they both necessary? Any changes?
- Overall validity of the questionnaire: Any improvements?
- How long should I allow for the average student to complete it?

Additional comments are also welcomed. Thanks for your input.

Sincerely,

Holly Miller
November 11, 1991

Dear ,

I am writing to express my appreciation for your invaluable help so far on my directed study. Because of your feedback on my survey which I submitted twice to you, I have totally reworked my initial format.

Last week, I performed my pilot study in Dr. McArthur's 2:00 American History class, and I was able to survey 33 students. The initial results are both surprising and pleasing. After a bit more revision, I trust that the final survey will enable me to draw valid conclusions about meat and caffeine habits among our baptized SDA youth here at Southern College.

Again, thanks so much for your help. I will try to make the results available to you when the project is completed, either by having a copy on reference in the library, or, if I can afford it, by sending a personal copy of my paper to each of you.

Sincerely,

Holly Miller
Appendix C: Questionnaire Instructions

Holly Miller is a Senior Psychology major. She is conducting a survey as part of her research project for Southern Scholars, the honors program here at Southern College.

SURVEY TITLE:
The Impact of the Seventh-day Adventist Environment on Collegiate Adventists' Meat and Caffeine Consumption

The purpose of this study is to learn how baptized SDA collegiate youth feel about the church guidelines regarding meat and caffeine, and their habits concerning these substances.

This survey is only to be filled out by baptized members of the SDA church. If you are not a baptized SDA, please keep your Scantron sheet blank, and turn it in with the others after the survey.

Do not give your name, ID#, etc. The answers and comments you give will remain anonymous.

Use a pencil to answer ALL questions: some questions may not apply to you, so choose the option "does not apply", or write a comment on the back of your Scantron sheet to indicate what your
The Impact

response would be.

Use the blank, white area on the back of the Scantron sheet to write any feedback about the survey: your opinions, comments, questions will be very helpful.

Thank you for your participation.
Appendix D: Questionnaire

The Impact of the Seventh-day Adventist Environment on SDA College Students' Meat and Caffeine Consumption Questionnaire*

*This questionnaire is for baptized members of the Seventh-day Adventist Church. Please do not participate if you are not in this category.

Directions: Please read the following questions carefully. Answer each question, giving only one response. Please respond honestly; you will remain anonymous. You may write any questions or comments on the paper provided. Thank you.

1) Age group:
   a) 17-19
   b) 20-22
   c) 23 and older.

2) Sex:
   a) Male
   b) Female

3) Were you...
   a) raised in an SDA home, beginning before age 12, or
   b) converted to SDA after age 12.

4) How many years of SDA education have you had?
   a) less than 1 year
   b) 1-4 years
   c) 5-8 years
   d) 9-12 years
   e) 13+ years
5) What was your family's use of meat when you were growing up?
   a) We ate clean meats occasionally.
   b) We ate clean meats often.
   c) We ate all types of meat.
   d) We were vegetarian.

6) Did your family use caffeine when you were growing up?
   a) Yes
   b) No
   c) Occasionally

7) Do you consider yourself to be a practicing SDA?
   a) Yes
   b) No

8) Are you aware of SDA guidelines regarding the use of meat and caffeine?
   a) Yes
   b) No

9) Where did you get your primary information about SDA health policies?
   a) Parents
   b) SDA Teachers
   c) SDA publications
   d) Personal Bible study
   e) Secular sources

10) SDA health guidelines regarding meat and caffeine are supported by which of the following?:
    a) The Bible.
    b) The writings of Ellen G. White.
    c) Scientists and nutritionists.
    d) All of the above.
    e) None of the above.

11) Do you try to influence your peers regarding meat and caffeine?
    a) No, it's none of my business.
    b) I encourage them not to use caffeine or meat.
    c) I don't feel comfortable discussing it with them.
    d) It's not an issue with me.
12) What is your present opinion regarding the use of meat and caffeine?  
   a) I don’t believe using caffeine and/or meat is linked to salvation.  
   b) I think it’s vital to my salvation to learn all I can.  
   c) I should act on what I know now.  
   d) I haven’t formed an opinion yet.

13) Do you believe that the SDA health position on caffeine is relevant in today’s society?  
   a) Yes  
   b) No  
   c) I’m not sure.

14) Do you believe that the SDA emphasis on the benefits of vegetarianism is appropriate?  
   a) Yes  
   b) No  
   c) I’m not sure.

15) What are your present habits regarding meat consumption?  
   a) I am a vegetarian.  
   b) I eat clean meats only occasionally.  
   c) I eat clean meats regularly.  
   d) I eat all types of meat.

16) What are your present habits regarding caffeine consumption? (coffee, tea, cola drinks)  
   a) I never use caffeine.  
   b) I seldom use caffeine, such as when trying to stay awake.  
   c) I use caffeine about once a week.  
   d) I use caffeine 3–4 times weekly.  
   e) I use caffeine daily.

17) Have SDA’s contributed significant information to society regarding diet?  
   a) Yes  
   b) No  
   c) I’m not sure.
18) If you know of SDA guidelines on meat and caffeine, yet DON'T practice them, what is your main reason?
   a) This does not apply to me.
   b) They are inconvenient and/or unimportant.
   c) Nobody else seems to follow them.
   d) Changing my lifestyle is not a priority.
   e) I don't believe these guidelines have a scientific base.

19) If you know of SDA guidelines on meat and caffeine, and you DO practice them, what is your primary motivation?
   a) This does not apply to me.
   b) I believe these two guidelines of the church are medically sound.
   c) They are relevant to my life.
   d) It's easier to cooperate than to be pressured by others.
   e) I am concerned about my health.

20) How much effort do SDA's spend educating members about health?
   a) Too little
   b) Too much
   c) About enough

21) Are you presently striving to improve your health habits?
   a) Yes
   b) No

22) If presently consuming meat and/or caffeine, what do you plan to do?
   a) This does not apply to me.
   b) Maintain my current habits
   c) Decrease my use
   d) Increase my use
Appendix E: Sample Comments by Respondents

Included here are comments written on the Scantron sheets when the questionnaire was administered. I didn’t include comments from the pilot test, when respondents were asked to comment on the construction of the test. All comments are printed in their entirety; some have been slightly edited for clarity. The numbers before the comments indicate a specific question the respondent is speaking to. To realize the full impact of the comments, it might be helpful to have the questionnaire in hand so as to be able to refer to the specific questions being addressed by the following comments.

(18) Like before, I don’t feel as if salvation is based on my diet.

(18,19) The meat and caffeine should have been addressed separately.

Frankly, the church has no impact on what I eat away from school.

I drink caffeine maybe three times a year and have eaten meat twice in my life. I don’t have a taste for either.

(5) Prior to Adventism I ate meat; afterwards, I ate clean meat. Now, in the past year I’ve been a vegetarian.

(6) Not in the home, but I used it occasionally.

(17) Yes, but we haven’t emphasized it enough.

I would like to know your results. Also, what about sugar? Well I think the survey is really okay but just because the
church has a few rules about caffeine and meat doesn't mean I'm necessarily going to change my habits.

(5) I've always been a vegetarian.

(3) Not strongly emphasized in non-consumption.

(11) The only person I say anything to is my boyfriend.

(15) I don't feel the rules are impractical or inconvenient; I just don't see anything wrong with eating (meat) and drinking (caffeine) if not done in excess.

Yes, I think that if we are Christians we should not have anything that resembles meat or soda because in a way we are saying it's OK to use caffeine and eat meat.

We are supposed to take care of our body; it is God's holy temple. It is also good for our health and well-being that we limit our caffeine and meat consumption, although I do not believe that it is necessary to not eat and drink these things in order to gain everlasting life.

I was raised on all meats but later I started only occasionally using clean meats.

Being a vegetarian does not necessarily mean your diet is more healthful. Eating meat can provide good nourishment. The Bible is not against meat consumption. It promotes a balanced, healthy diet and lifestyle and I believe it is the individual's choice, not a matter of salvation.

(11) I discourage friends and peers not to eat meat, but I don't say anything about the caffeine.
(22) I do drink caffeine, but I'm a vegetarian. I will not eat meat, but I do drink caffeine.

(18) I believe caffeine is bad for you, but I personally haven't made the choice to stop drinking it.

(20) Enough time is spent but it is spent poorly. It is linked to salvation which I don't believe is right. New members are harped to death.

(16) Caffeine—I included chocolate as one. This is caffeine to me. I drink no coffee nor soft drinks.

Meat is okayed in the Bible depending on clean or unclean. In my view the Bible always is a better reference than Man. Caffeine applies as my body being God's temple. That is why I refrain, not because of any church mandates.

(18) I did not have an answer that reflects how I feel. I drink caffeine in moderate amounts. I eat turkey in a blue moon.

(18) Question 18 gives no proper answers to the question given. It seems to be worded in a defensive way.

Being raised SDA, meat totally disgusts me and I think that is more of a reason than health. Of course these go hand in hand along with supply and demand for the slaughter of animals.

Caffeine. I try to stay away from, but I have a love for Cherry Coke and have it just occasionally. I wish they would serve caffeine-free drinks in restaurants.

(20) I think that there is plenty of educating and not
enough practicing of the health principles among SDAs.

(18) I believe I have the right of choice in these matters. These are guidelines, not laws.

(16) I am cutting back on caffeine to 1-2 times a week because it wasn't helping.

(18) I choose my own lifestyle. Why not pick a topic like sugar consumption? The veggie meats are as bad for you as real meat (because of chemicals and preservatives). These topics have been driven into the ground by SDAs.

(10) B and C.

I never really used caffeine until I began college. Since then, my course loads have been such that I feel the use of caffeine (occasionally) is necessary.

(20) I believe we are providing quite a bit of information, but we could do a little more.

Considering my answers does this mean I can still be an Adventist? Or do I have to be re-baptized?

(20) It depends on which group of SDAs you are talking to. All three answers apply to different groups.

I feel that the churches need to sponsor more cooking schools and put more emphasis on healthful living.

(18) It's difficult to change from the way I was brought up. I think so much stress on the SDA health message has been more than exhaustive. How about learning more about Christ and
putting less attention on technicalities? I eat chicken once in
awhile and there's nothing wrong with it. Everything in
moderation is OK.

(18) I sometimes don't think about these guidelines when I
go out to eat.

Unfortunately, the strong beliefs of the SDAs, who were at
one time in the forefront of health education, have taken a back
seat to the issues of today.

(18) I know the basic guidelines, yet I choose to eat meat
because: (1) it tastes good. (2) I enjoy eating it when I go
out. (3) peers; they eat meat and their family does also and I
don't want for them to make special arrangements. (4) I
basically choose not to, but I am considering changing soon to be
healthy.

Caffeine—I don't drink it because it causes me to become
hyper and once in a while I'll drink it (ice tea) but I prefer to
have OJ and H₂O.

(18) I think they're important and I act accordingly. I
used to eat meat and now am a vegetarian because I felt that's
what I should do. The caffeine I do drink doesn't bother me.

(11) Really, none of my friends eat meat and if they do,
they only eat what I eat.

(19) I don't eat meat because it tastes awful. I wasn't
raised eating it, and it makes me sick to think of eating an
animal.
I don't drink caffeine because I don't think it's good for me and I don't really like it.

(11) I will encourage my friends not to use caffeine, but I feel that it is a personal choice for caffeine and meat use. It's between God and them, not me and them!

(12) I feel all apply.

(16) I used to use it but don't anymore or at least try not to (maybe once a month).

(18) I feel that my diet is a healthy one and I would rather eat our home grown meat than eat the processed vegetarian meat.

(22) The caffeine does not apply and #18 states my feelings on meat.

(18) It's unimportant to me because I don't excessively eat meat and drink caffeine all the time. It is an important issue but when people who don't eat meat look down on you because you do, it just makes me want to do it more.

(20) No comment.

(22) No comment.

(12) I know it's not.

(16) I don't know how often I consume caffeine because it is not an important issue. I realize that if used in overabundance it is harmful but I don't fall in this category.

(17) Yes, because I was raised as an Adventist veggie. But my grounds for remaining a veggie have nothing to do with SDA principles.
The SDA church's guidelines as far as health is concerned are based on the idea that we need to keep our bodies in good health. "Our bodies are the temple of God."

The SDA church has put on the no caffeine, no meat instructions, which technically aren't very biblical. I will be the judge of what's good or not good for me, not the SDA church!

I didn't use meat or caffeine until age 12 or 13, but now I use both sparingly. Our church does not believe that eating clean meat is wrong. This guideline (vegetarianism) is optional and is followed by personal choice.

As for caffeine, I think there are many foods which are just as hazardous (or more) to an Adventist's health—sugar, salt, meat substitutes, dairy products, cholesterol.

(19) I believe b.c and e are all good choices! Perhaps this question should allow more than one option.
### Table 1

#### Item Analysis for Percent Response

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