A Survey of a Rural Southwest Arkansas Baptist University on Engagement in Spiritual Disciplines and Attitudes Toward Nutrition in the Church

Elizabeth Fast
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Abstract

**Background:** Due to America’s declining health, effective interventions are needed to reverse the trend. Churches may be an ideal setting for these interventions because of established resources and the potential for intrinsic motivation.

**Objective:** The purpose of this research was to assess the current efforts of churches to influence health by surveying students of a Baptist liberal arts university in Southwest Arkansas.

**Methods:** Before conducting the survey, the study was approved by the Institutional Review Board of Ouachita Baptist University. The questionnaire included basic demographic information and a series of statements with Likert scales. Sixty-six individuals were recruited from the student body at Ouachita Baptist University. Subjects were invited to fill out the questionnaire via emails from their professors, and participation was voluntary. Data was tabulated using SurveyMonkey, which provided totals and percentages.

**Results:** The survey received a total of 58 complete responses. The sample population overall considered themselves to be spiritually active, but their friends slightly less so. The majority of respondents agreed that both spiritual and physical well-being was important to them. Respondents tended to disagree with the statements that promoting nutritious eating was a priority of their church and pastoral staff.

**Conclusions:** While respondents valued both physical and spiritual health, the respondents mostly did not believe there was a connection between the two values, and neither did they see a connection in the priorities of their churches.
Introduction

America’s health is declining due to the rise of the obesity epidemic and its associated diseases. Thus, effective and efficient interventions are needed to reverse the trend of American health. Churches may be an ideal partner for changing health behaviors because of intrinsic motivation factors and established resources. This survey was designed to assess beliefs of college-age adults in churches on the appropriateness of nutrition education in a church setting.

Review of Literature

The link between physical health and spiritual health has long been explored as a possibility for mutual improvement. Some disciplines are more obviously a combination of the spiritual and physical, such as yoga. Many religions have restrictions on what an adherent can or cannot do with their physical health; for example, the Jewish and Islamic dietary laws. Regardless of the particular brand of religion practiced, research has shown that religiosity and spirituality are protective factors for physical and mental health\textsuperscript{1,2}.

Christianity may not have a connection that is as apparent as diet regulations, but regular church attendance has been shown to improve health behaviors\textsuperscript{1,2}. According to one study, religiosity and spirituality were associated with lower energy intake, less alcohol use, and lower likelihood of lifetime smoking\textsuperscript{1}. Another study observed decreased measurements of stress and all-cause mortality with increased rates of church attendance\textsuperscript{2}.

Several reasons for the positive effect of religion on physical health have been hypothesized. Some of the motivators could be negative forces, such as internalized guilt or shame for unhealthy behaviors that pushes the adherent to improve themselves\textsuperscript{3}. Perhaps just as strong is the fear of embarrassment, ridicule, or ostracism from the group for their lack of
discipline. Positive motivation could come in the form of social support, emulation of other group members, health messages, availability of healthy foods, and nutrition or health education within the religious group.

Another suggestion for the correlation between religiosity and health behaviors is that individuals who are religious are predisposed towards a cluster of behaviors that promote health. Members of religious group are more likely to follow risk-averse lifestyles, maintain social control, and create nuclear families, all of which are associated with the promotion of positive health behaviors like avoiding alcohol, tobacco, and substance abuse. It remains to be determined whether the predisposition toward religiosity or religiosity itself is the instigator for better health behaviors.

Prior to the increase in public health initiatives, healthcare was largely dependent on the private sector, especially for underserved and disadvantaged groups. Churches continue to have a prominent role in providing healthcare through charitable efforts and collaboration with the government. While churches have been active in the treatment of health issues, their efforts to prevent chronic disease have been limited.

Whether or not religiosity promotes a healthy lifestyle, churches are poised to encourage and even endorse healthy behaviors. The inherent community with a church can serve to provide social support, goods and services, and socioemotional assistance. Many churches have already outreaches or ministries targeting specific needs inside and outside the congregation. The perceived environmental support is associated with increased intake of fruits, vegetables, fiber, and decreased intake of fat. Church members can also individually provide support to promote healthy behaviors, either through encouragement, accountability, money, services, or information. Church leaders are uniquely positioned as leaders and role models to demonstrate a
healthy lifestyle; however, pastors and teachers are not always using their platform to share messages of the importance of physical health\textsuperscript{5,7}.

Not only is the church community well-suited to promote healthy lifestyles, but it should be imperative for them to engage in public health. Obesity and chronic disease is a growing issue in the United States: over 36.5\% of American adults and 17\% of children ages 2-19 are obese\textsuperscript{8,9}. Obesity is part of a cluster of diet-related, chronic diseases including type 2 diabetes mellitus, heart disease, stroke, and some cancers\textsuperscript{8}. These issues are costing Americans by increasing spending on healthcare to treat them\textsuperscript{8}. A study of church leaders found that many believe that the church should move to improve the current situation\textsuperscript{10}. Other leaders may not recognize their role as facilitators of health promotion in their congregations\textsuperscript{11}. Although some church attenders believe it is not the responsibility of the church leadership to discuss health behaviors, religious leaders are equipped with communication skills, trust, and knowledge of their religious texts, making them ideal spokespersons for health issues\textsuperscript{5,11}. Leaders could find many ways of supporting health initiatives besides the pulpit such as bulletins, displays, activities, events, or ministries\textsuperscript{3,6,7,11}.

Most religions, Christianity included, have scriptures and beliefs that encourage self-control, moderation, and healthy habits, and discourage over-indulgence\textsuperscript{11}. Such teachings are logical because they promote a long and productive life so that adherents could continue furthering their religious cause\textsuperscript{11}. This removes the motivation from an internal motivation for health because of the personal benefits; instead, health becomes a priority of the larger community\textsuperscript{11}.

While church leaders stated that individuals have responsibility for their own health, the community also has a responsibility for creating an environment conducive to a healthy
The community has potential for shaping eating behavior in different settings, including home, work, and church environments. Food is an important part of many church activities and ministries, although changing established patterns to create nutritionally sound environments would take time and effort.

While all ages need support and guidance to follow a healthy lifestyle, college-age adults are particularly vulnerable as they are shifting from their childhood home environment and creating their own. Although the home environment may be changing, the church environment could provide consistent social support for a healthy lifestyle. Without the influence of parents or guardians, these emerging adults are completely responsible for their health behaviors. Religion, and Christianity in particular, has a regulating effect on these behaviors and creates accountability.

Diet-related diseases are a problem the American population, and this calls for effective interventions to combat their effects. Due to its influence and resources in many communities, the church has the ability and the opportunity to make a difference in the health behaviors of its members and the larger community. The purpose of this research was to assess the current efforts of churches to influence health by surveying students of a Baptist liberal arts university in Southwest Arkansas.

Methods

Procedures

Before conducting the survey, the study was approved by the Institutional Review Board of Ouachita Baptist (see Appendix A). The questionnaire was reviewed by a small pilot group and revised according to the responses. The questionnaire included basic demographic
information and a series of statements with Likert scales. Four professors from the School of Humanities and the School of Natural Sciences agreed to invite their classes to participate in the survey. The questionnaire was distributed using an email link with an explanation of the study’s purpose. The survey remained opened for one week, allowing the students enough time to respond at their leisure.

Subjects

Sixty-six individuals were recruited from the student body at Ouachita Baptist University. Subjects were invited to fill out the questionnaire via emails from their professors, and participation was voluntary. Classes were invited from the School of Humanities and the School of Natural Sciences during the month of October 2017. Subjects were included in the study if they were currently attending classes at Ouachita Baptist University in Southwestern Arkansas. Responses were excluded from the results if the subject was under 18 years of age. Informed consent was obtained from each respondent prior to submitting the questionnaire. Respondents answered the questionnaire electronically via the SurveyMonkey service, which also tabulated the responses.

Data Analysis

Data was tabulated using SurveyMonkey, which provided totals and percentages. By assigning values for each response on the Likert scale (for example, a value of 1 to “Strongly Disagree” and a value of 5 to “Strongly Agree”), SurveyMonkey calculated weighted averages for each statement. No statistical analysis was performed.
Results

The survey received a total of 58 complete responses. All of the survey participants were students currently enrolled in classes at Ouachita Baptist University. Of the 58 respondents, 15 (26%) were male and 43 (74%) were female. Only two participants (3%) were over 22 years old; the remaining participants were between 18 and 22 years old, inclusive. For race and ethnicity, respondents were allowed to select multiple answers as they applied, with an option not to respond. The majority (n=55, 95%) of respondents indicated white/Caucasian as their race and ethnicity. Two (3%) selected black/African American, one (2%) chose Asian, three (5%) indicated Hispanic/Latino, one (2%) selected American Indian/Native Alaskan. Two (3%) respondents preferred not to answer.

The questionnaire also asked the respondents for their student classification and marital status. Twenty-eight respondents (48%) were freshmen, seven (12%) were sophomores, 13 (22%) were juniors, and 10 (17%) were seniors. Fifty-six (97%) of the respondents were single, while the remaining two (3%) were married.

Respondents were asked to report their average church attendance. Forty-one (71%) indicated that they attended church services weekly. Nine (16%) attended monthly, three (5%) attended yearly, and five (9%) did not attend church services regularly.

The final portion of the questionnaire asked respondents to indicate their degree of agreement with a series of statements using the Likert scale. Answers were weighted, with "Strongly Disagree" having a value of 1, and "Strongly Agree" having a value of 5.

The first series included statements regarding spirituality (see Table 1), beginning with questions about the respondents' friends' perceived spirituality. The statement "Attending church
is important to your friends" had an average of 3.9, with 31 (53%) respondents indicating "Agree." The statement "Reading Scripture is regularly a part of your friends’ lives" had an average of 3.5, with 23 (40%) responding that they agreed, while 15 (26%) saying that they neither agreed nor disagreed. "Prayer is regularly a part of your friends’ lives" received an average of 3.9, with 30 (52%) of respondents agreeing with the statement.

The next three statements were similar to the previous three except they were about the respondent. The statement "Attending church is important to you" had an average of 4.2, with 30 (52%) respondents indicating "Strongly Agree," and 18 (31%) indicating "Agree." The statement "Reading Scripture is regularly a part of your life" had an average of 3.6, with 13 (22%) saying that they strongly agreed, and another 25 (43%) responding that they agreed. "Prayer is regularly a part of your life" received an average of 4.2, with 31 (53%) of respondents strongly agreeing with the statement.

The last statements in the spirituality section addressed the respondents' sense of well-being. "Spiritual well-being is a priority in your life" received an average of 4.2, with 26 (45%) respondents indicating they strongly agreed, and an additional 22 (38%) indicating they agreed. "Physical well-being is a priority in your life" had a slightly higher average at 4.2, with 20 (35%) respondents strongly agreeing and 29 (50%) agreeing with the statement.
The second series assessed the respondents' degree of agreement by presenting statements addressing nutrition and the church (see Table 2). The first two statements in the second series were about the respondents' personal nutrition habits. "Nutritious eating is important to you" was given an average of 4.0, and 31 (53%) respondents agreed with the statement. "Nutritious eating choices are regularly a part of your life" averaged at 3.5, with 21 (36%) responses indicating "Agree" and 20 (35%) indicating "Neither Agree Nor Disagree."

The last four statements were regarding the respondents' belief in the importance of nutrition in a church setting. "Nutritious eating is an important part of a Christian’s lifestyle"
averaged 3.5, with 17 (29%) respondents indicating "Agree" and 26 (45%) indicating "Neither Agree nor Disagree." The next statement, "Promoting nutritious eating is a priority of your pastoral staff," received an average of 2.7, with 24 (41%) respondents saying they neither agreed nor disagreed, while 16 (28%) saying they disagreed. "Promoting nutritious eating is a priority of the church" averaged 2.5, with 22 (38%) responses indicating "Neither Agree nor Disagree" and another 22 indicating "Disagree." The last statement, "Promoting nutritious eating should be a priority of the church," received an average of 3.2, with 14 (24%) of respondents choosing "Agree," while 29 (50%) choosing "Neither Agree nor Disagree."

Table 2. Degree of agreement to statements addressing nutrition and the church

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</thead>
<tbody>
<tr>
<td>Nutritious eating is important to you</td>
<td>0 %</td>
<td>3 %</td>
<td>17 %</td>
<td>53 %</td>
<td>26 %</td>
<td>4.0</td>
</tr>
<tr>
<td>Nutritious eating choices are regularly a part of your life</td>
<td>0 %</td>
<td>14 %</td>
<td>34 %</td>
<td>36 %</td>
<td>16 %</td>
<td>3.5</td>
</tr>
<tr>
<td>Nutritious eating is an important part of a Christian’s lifestyle</td>
<td>2%</td>
<td>9 %</td>
<td>45 %</td>
<td>29 %</td>
<td>16 %</td>
<td>3.5</td>
</tr>
<tr>
<td>Promoting nutritious eating is a priority of your pastoral staff</td>
<td>12 %</td>
<td>28 %</td>
<td>42 %</td>
<td>16 %</td>
<td>3 %</td>
<td>2.7</td>
</tr>
<tr>
<td>Promoting nutritious eating is a priority of the church</td>
<td>12 %</td>
<td>38 %</td>
<td>38 %</td>
<td>9 %</td>
<td>3 %</td>
<td>2.5</td>
</tr>
<tr>
<td>Promoting nutritious eating should be a priority of the church</td>
<td>3 %</td>
<td>14 %</td>
<td>50 %</td>
<td>24 %</td>
<td>9 %</td>
<td>3.2</td>
</tr>
</tbody>
</table>
Discussion

Results showed that the sample population overall considered themselves to be spiritually active, regularly engaging in spiritual disciplines. Because the sample was taken from a private Baptist liberal arts university, the responses reflected the expected high levels of spiritual engagement. Interestingly, while most individuals rated themselves highly on spiritual activities, they did not rate their friends as high as themselves. This could be because of a lack of communication about spirituality, a perceived insufficiency in spiritual activity in their peers, or a sense of superior spiritual maturity. This could be an issue for implementing health interventions in the church, as one of the perceived benefits of a church setting is greater community and accountability\textsuperscript{3,5}. However, responses could be affected by the reference group that respondents used for the statements that included “your friends.”

The majority of respondents either agreed or strongly agreed that both spiritual and physical well-being was important to them. Although they indicated that these were of high importance, their practices did not completely correspond. The sample identified strongly with spiritual well-being; however, they did not indicate that Scripture reading was a regular part of their life. Conversely, church attendance and prayer were regularly practiced in the sample. This may be because attending church is a social activity that only takes place weekly, making it less of a time commitment, more enjoyable by providing social interaction, and increased accountability from like-minded peers. Prayer is less structured and time-consuming than the other surveyed spiritual activities, making it easier to undertake. However, Scripture reading takes more time and self-discipline than the other two spiritual activities, which may have caused its lower response in the survey.
While most respondents agreed that nutritious eating was important to them, similar to physical well-being, fewer would say that nutritious eating was a regular part of their lifestyle. Again, this may be because individuals find it hard to discipline themselves to meet their goals or aspirations despite their beliefs and values. This problem could be applied to the general American population, which is experiencing widespread prevalence of diet-related diseases\textsuperscript{8,9}. Still, the sample generally indicated that they pursued healthy nutrition habits as well as spiritual habits, much like previous research findings\textsuperscript{3}.

Respondents tended to disagree with the statements that promoting nutritious eating was a priority of their church and pastoral staff. Although slightly more confident, the respondents were more neutral about whether or not nutritious eating should be a priority in the church. While expected, these results were disappointing because it highlights the need for increased awareness of the link between spiritual and physical health. It appears that the churches attended by the sample rarely or infrequently addressed the issue of physical health in a spiritual environment, even though churches are an ideal setting for health interventions as brought up in previous research\textsuperscript{3,6,7,11}. Many churches have the opportunity and means to impact health behaviors, especially in conjunction with other community organizations\textsuperscript{3,5,6,7}.

Limitations of this study were the biases of the sample. The sample was drawn solely from a small Baptist liberal arts university in Southwestern Arkansas. The majority of the sample was white/Caucasian, single, and between 18-22 years old, inclusive. The sample was not random, but taken from select classes in different schools of study. The size of the sample was small, limiting generalizability to the sampled university alone. Despite these limitations, the study uncovered some interesting points that need further research.
Conclusion

Although most respondents agreed that spiritual and physical well-being were important to them, their lifestyles did not accurately reflect their values. Most of the sample regularly engaged in at least two kinds of spiritual activity, but not as much as would have been expected from the stated importance. They also did not engage in nutritious eating as frequently as their other responses would have indicated. While they valued both physical and spiritual health, the respondents mostly did not believe there was a connection between the two values, and neither did they see a connection in the priorities of their churches.
References


Appendix A
Ouachita Baptist University
Institutional Review Board
Human Subjects Review Application Cover Sheet

Submission Date  September 27th, 2017

Project Title: Survey of a Liberal Arts University on Physical Health in the Church

Project Personnel

<table>
<thead>
<tr>
<th>Name</th>
<th>Dept.</th>
<th>School</th>
<th>Faculty, staff, student</th>
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</thead>
<tbody>
<tr>
<td>Principle Investigator</td>
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</table>

Elizabeth Fast  Nutrition & Dietetics  Natural Sciences  student

PI contact information:
e-mail- fas59250@obu.edu  telephone- 630-247-8743  campus box- 4337

Suggested project classification: Exempt  X___  Nonexempt  ___

Estimate of risk to subjects: None  X___  Low  ___  Moderate  ___  High  ___

Proposed Project Dates:  __10__/__3__/__17__  to  __12__/__6__/__17__

Estimated number of participants  ___100___

Funding Agencies or Research Sponsors:

__________________________________________________________

________________________________________

Submission Status:

X___ New Project

_____ Renewal or Continuation

_____ Change in Procedure for Previously Approved Project

_____ Annual Review

_____ Resubmission
Action of the Research Committee

Project Number _______________  Approve_____  
Approve with minor revision_____  Defer for revisions_____  Disapprove_____
Project Description

Survey of a Liberal Arts University on Physical Health in the Church

Subjects will be recruited voluntarily from the Ouachita Baptist University (OBU) student body, faculty, and staff via email or social media. Eligible participants will be aged 18 years or older, and be either employed by or studying at OBU. Participants will not receive compensation for completing the questionnaire because of the participants’ small requirement and the researchers’ lack of funds. The data collection and analysis will take place on OBU’s campus, although questionnaires will be completed online using the participants’ electronic devices over the period of about one week. The investigator of this study is a peer of the students who will be recruited. The survey is voluntary so anyone who is solicited has the option to refuse participation.

The purpose of the study is to assess the beliefs of students, faculty, and staff of a Southern liberal arts Baptist university about the importance of the relationship between physical health and the church. If church attendees believe that physical health is or should be important for a Christian’s lifestyle, churches could represent an underused platform for promoting health behavior changes.

Participants’ behaviors and beliefs will be assessed using a questionnaire. The investigator will not coerce any subjects to participate, nor mislead subjects about the purpose of the study and their participation. There will not be any debriefing opportunities.

The survey will use an online questionnaire to collect data from the participants. The questionnaire will include basic demographics and statements regarding physical health in the church. The survey will not collect any identifying information from participants.

Americans’ health is declining as obesity and related chronic diseases increase. Many Americans want to improve their health, but lack the support or motivation to make lasting positive change. If church attendees believe that physical health should be an important part of their religious practice, churches may be an underused platform for promoting healthy behaviors because of their innate community.
The subjects do not incur any risk by participating in the survey. Each questionnaire will be confidential since it will be completed independently by each respondent and not contain any identifying information. Only the investigator will handle the data as an additional precaution. The data will be presented in a research paper and an in-class oral presentation.

Conflicts of Interest

The investigator has no conflicts of interest to declare.
Informed Consent Agreement

Survey of a Liberal Arts University on Physical Health in the Church

Please read this consent agreement carefully before you decide to participate in the study.

The purpose of the study is to evaluate the attitudes of students, staff and faculty of a liberal arts university on the importance of physical health for church attendees.

What you will do in the study: complete a short questionnaire asking for non-identifying demographic information and statements

- The total experiment will require about 3 minutes.
- There are no risks to you as a participant in this study.

The study may help us understand the perceived importance of physical health in the church. Based on results, churches may provide a platform for nutrition and physical activity intervention programs. The information you provide in the study will be handled confidentially. Your name will not be used in any report. Your participation in the study is completely voluntary, and you have the right to withdraw from the study at any time. You will receive no payment for participating in the study.

If you have questions or concerns about the study, please contact

Elizabeth Fast, Principal Researcher
Natural Sciences Department, OBU Box 4337
410 Ouachita Street Ouachita Baptist University
Arkadelphia, AR 71998-0001
fas59250@obu.edu

You may contact the following person regarding your rights in this study:

Wesley Kluck, Chair Institutional Review Board, OBU Box 3758
I have read and understand this document and have had the opportunity to have my questions answered. I agree to participate in the research study described above.

Signature: __________________________________________ Date: ____________

If you would like a copy of the aggregate results of this study, please contact the principal researcher
**DEMOGRAPHICS (Circle one)**

**Gender**
- Male
- Female

**Age (if you are under 18, please do not complete this questionnaire)**
- 18-22
- 23-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70+

**Role**
- Student
- Staff
- Faculty

**Year of Study (students only)**
- Freshman
- Sophomore
- Junior
- Senior+

**Average Church Attendance**
- Weekly
- Monthly
- Yearly
- None

**Marital Status**
- Single
- Married
- Widowed
- Divorced

**Ethnicity/Race (Circle all that apply)**
- White/Caucasian
- Black/African American
- Asian
- Native Hawaiian/Pacific Islander
- Hispanic/Latino
- American Indian/Native Alaskan
- Other: Prefer not to answer

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For the following sections, select from:
- Strongly Agree (SA), Agree (A), Neither Agree nor Disagree (N), Disagree (D), or Strongly Disagree (SD)

When responding to the following statements, use the church you have attended most frequently in the past 6 months.

Attending church is important to your friends

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>N</th>
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<tr>
<td>Reading Scripture is regularly a part of your friends’ lives</td>
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<td>Prayer is regularly a part of your friends’ lives</td>
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<td>Spiritual well-being is a priority in your life</td>
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<td>Physical well-being is a priority in your life</td>
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<td>Nutritious eating is important to you</td>
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<td>Nutritious eating choices are regularly a part of your life</td>
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<td>Nutritious eating is an important part of a Christian’s lifestyle</td>
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<td>Promoting nutritious eating is a priority of your pastoral staff</td>
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<td>Promoting nutritious eating is a priority of the church</td>
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