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A Survey of a Rural Southwest Arkansas Baptist Church on Attitudes Toward Nutrition and Physical Activity in the Church

Elizabeth Fast
Ouachita Baptist University

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Introduction

The Christian Protestant church is known for its dedication to the spiritual well-being of its members. It is also known for its outreach and charity efforts in the community. A large need in the community is health behavior interventions, but more research is needed to assess the appropriateness and the receptiveness of the church to promoting health interventions. This research was done to evaluate current research regarding health behaviors in the church and contribute to the existing data by conducting a survey of a Baptist church in Southwest Arkansas.

Review of Literature

The Problem

Diet-related diseases are an increasing burden on American society, accounting for four of the top ten causes of death in the United States: diseases of the heart, malignant neoplasms, cerebrovascular diseases, and diabetes mellitus[1]. Apart from affecting mortality rates, these diseases result in decreased productivity in the workplace, hurting the economy[2]. In 2014, over $7,500 dollars per capita was spent on healthcare, taking 20.6% of all consumer expenses[3]. Healthcare costs have been trending upward for over a decade, which is encouraged by the rising numbers of diet-related diseases[3]. These diseases increase the risks of developing the others due to a cluster of common risk factors often referred to as metabolic syndrome.

Heart disease is associated with an unhealthy diet high in saturated fat, trans-fat, and cholesterol[4]. Saturated fat and cholesterol are typically found in animal or animal-derived products, while trans-fat is a by-product of the hydrogenation of unsaturated fats. Thus, a diet that lacks unprocessed, plant-based foods is an indicator for potential heart disease[5]. Hypertension (high blood pressure) is related to excess sodium in the diet, which in turn increases the risk of cardiovascular disease[4]. As a food is processed, it is stripped of essential nutrients, more sodium and trans-fat are added to preserve quality and increase palatability[5]. Thus, the components which should be consumed in moderation are present in high amounts in processed foods or "fast foods," which are regular components of the standard American diet.

One in four deaths is caused by some type of cancer[6]. Breast cancer had the highest incidence in 2014, at 123.9 cases per 100,000[7]. A diet high in saturated fats and excess calories extends the time of estrogen action in women, increasing their risk for developing breast cancer[5]. Colorectal cancer has been linked to a low-fiber diet, which can be due to a low intake of fruits

and vegetables[5]. Cancer of the colon and rectum had an incidence of 38.4 per 100,000[7]. Breast and colorectal cancers are two of at least thirteen types of cancer that have been linked to overweight and obesity[8]. Of all cancer deaths, approximately 30% are caused in part by poor nutrition[9].

Diabetes mellitus is another diet-related disease that is common in the United States. Diagnosed diabetes is subdivided into different categories; type 1 results from defects in insulin secretion, and type 2 results from defects in insulin action[5]. Type 1 is more likely to result from an autoimmune cause, while type 2 is more likely from a poor diet. Whether or not they were aware, almost one tenth (9.4%) of adult Americans had diabetes in 2015, and 95% of these cases are type 2 diabetes, or the insulin-resistant type[10]. Over a third (33.9%) of adults were prediabetic, meaning they were at increased risk of developing type 2 diabetes[10]. Risk factors present in diagnosed adults included obesity or overweight, hypertension, or high cholesterol[10]. Perhaps more disturbing is the prevalence of children and adolescents with diabetes – 193,000 younger than 20 years old in 2015 – which has been increasing markedly in recent decades[5,10]. Diabetes cost America an estimated $245 billion in 2012, either directly, such as medical expenses, or indirectly, through decreased productivity[10].

Overweight and obese weight statuses, defined as a body mass index (BMI) of 25-29.9 and greater than 30, respectively, are important risk factors for a cluster of chronic diseases including hypertension, cardiovascular disease, diabetes mellitus, and some cancers[5]. Over one-third of American adults are overweight, and another third are obese[11]. Disturbingly, these diseases are affecting our population at increasingly younger ages. This has contributed in large part to the deteriorating quality of the standard American diet. The obesity epidemic emerged in the 1980s, and related metabolic diseases have increased accordingly[5]. The obesity epidemic needs to be addressed through effective interventions that improve Americans' diet. In order to

be effective, interventions must create significant, long-lasting change in their populations. Successful interventions are more likely when they create the motivation and environment for change.

The Ideal Environment: Churches

Success is even more likely if the tendency and motivation already exists, which is possible in the church environment. Regular church attenders experience less stress and mortality than the general population[12,13]. Religious African Americans tended to maintain good health habits, including lower energy intake, less alcohol use and less likelihood of lifetime smoking with increasing amounts of time spent in spiritual activities[14]. Church attendance may also mitigate the predisposition of certain racial and ethnic groups towards poor health outcomes[15]. This may be because individuals who are predisposed toward risk-averse behaviors, such as less alcohol and tobacco use, are also predisposed towards regular religious practice[16].

However, researchers have hypothesized several possibilities that are open to further study. As members of a group, individuals may engage in healthy behaviors because of guilt or fear of embarrassment from their peers, or even judgment from higher authorities in the church[16]. They could also be emulating reference figures or leaders in the church[16]. Churches could provide a supportive environment through education, services, and resources, while members could be a source of informal support through money, goods, and accountability[16-18]. Individuals may be more likely to receive support and assistance if they share the same views on problems and relationships[16]. The previous potential effectors happen passively, but some individuals may actively use religion as a tool to manage their health[19]. Young adults say they use religion to provide consistency and support during many life changes that occur at their age[19].

In order to create change in the American public's health, change needs to occur at an organizational level, not just the individual level[20]. By changing policies and practices, organizations like churches can create health-promoting social and physical environments[20,21]. Churches are ideal platforms for creating health behavior interventions because of their widespread reach[21].

Motivation

Research has highlighted some barriers for engaging churches in health promotion. Church leadership may lack the knowledge necessary to accurately and effectively promote healthy behaviors in their congregations[13,21] , or they may be unaware of the issue[13]. They may also be unaware of resources available to provide support for health intiatives[21]. Church leaders may have to actively pursue the knowledge and support to make such changes, which could be discouraging because of the stress and work load that they already carry[13,22]. In addition, if pastors do not adhere to a healthy lifestyle, they may be discouraged from promoting healthy behaviors they feel are hypocritical[13,18,21]. Conversely, they may believe that they are impervious to the effects of unhealthy behaviors because of divine protection[13]. Aside from their personal health, pastors may be worried about offending church members whose lifestyle does not reflect healthy behaviors[13]. They may contend that congregants are not looking to improve their physical health at church, but rather they are coming to improve their spiritual health[13]. All these contribute to reluctance in church leadership to develop a positive health environment.

Another barrier identified in research is the traditions within the church[21]. Many churches include food that may not be nutritious in their ministries and events[18,21]. Congregations may be resistant to change in these activities that could be identified as part of the church tradition[13,18,21]. Church members may also resist health initiatives they feel are competing against or distracting

from the main purpose of the church[21]. Congregations may fail to recognize that promoting healthy behaviors in a religious context is less about self-centered physical attractiveness and more about increasing effectiveness in ministry by preventing undesirable health consequences[13,23]. Pastors and congregants may believe that lack of a specific spiritual directive on health leaves such initiatives outside the purview of the church[21].

While some churches may believe that physical health should not be given attention within a spiritual setting, some researchers dispute this belief. Christianity holds that God created the human body and by extension its abilities and potential[23]. Because God is the creator of the body, it belongs to Him, and thus should be properly cared for and used as He would have it used[23]. Most scriptural support for maintaining a healthy lifestyle may be indirect, but a few verses specifically mention caring for the body[13]. In 1 Corinthians 10:31, it says, "Therefore, whatever you eat or drink, or whatever you do, do everything for God's glory"[24]. Earlier, the Scripture says in Proverbs 23:20-21, "Be not among drunkards or among gluttonous eaters of meat, for the drunkard and the glutton will come to poverty and slumber will clothe them with rags"[24]. While Scripture spends much more time on other disciplines, healthy behaviors are a part of the Christian lifestyle[13].

Christians may be unaware of the applications of core beliefs to physical health[13]. Christianity holds that humans are created by God in the image of God, and as such the human body should be treated with care and respect[23]. Christianity also teaches that self-control is a part of living as a reflection of God. Therefore, gluttony, the overindulgence of food and drink, is in opposition to the teachings of Christianity[13]. Gluttony is equivalent to excess energy intake, the etiology of obesity[13]. However, most churches today do not discuss the issue of gluttony either because they do not realize that overeating and overweight are directly related to gluttony, or they do not recognize that they are overeating or overweight[13]. Again, church leaders are in

position to bring these teachings to the attention of congregations to spur health behavior change[13].

Some churches believe that the physical body is irredeemably sinful and should be marginalized[13,23]. This idea originates in the early history of the church with Dualism, the teaching that believes that the spirit is innately good while the body is evil[23]. However, this was refuted by the apostle Paul who taught that the state of the physical body had spiritual implications[13]. However, this idea persists and can undermine the importance of good health behaviors[13,23]. While not yet fully understood, physical health and spiritual health are connected through the link between the intellect, will, emotions, and the endocrine, nervous, and immune systems[23]. For example, endorphins released during physical activity can improve the mood and increase sense of well-being[23]. Thus, churches do have a place in the fight against unhealthy lifestyles and their consequences.

Not only do churches have an opportunity to promote healthy lifestyles, they may have a responsibility as an environment for creating change[17,25]. While some of the responsibility falls on individual church members, the larger congregation has a role in supporting each other and changing the environment to promote healthy behaviors as a community and a family[24].

In order to engage churches, the pastors should prioritize health initiatives in their congregation[20,21]. Churches are more willing to adopt health-promoting change if their pastors endorse the changes and are more likely to participate in programs if they have the support of church leadership[20-22]. Pastors are also able to direct incorporation of health-promoting changes into the entire organization, rather than just isolated instances[20,21,26]. If pastors believe that health topics are appropriate for a church setting, health topics are more likely to be a part of their sermons and church publications[20]. However, pastors were more likely to believe that health

topics were more appropriate in one-on-one settings[18,20], which may not be conducive for starting church-wide health interventions. Pastors could use such one-on-one settings to gauge congregants' support and interest for creating a health-promoting environment in their churches[20]. Pastors are also in an excellent position to model positive health behaviors[26]. Pastors and congregants may find it more amenable to promote positive topics, like healthy eating or physical activity, rather than negative topics, like losing weight[18].

Collaboration

Churches have a history of partnering with other entities in health promotion interventions[21]. Religious congregations and organizations have worked to serve underserved and disadvantaged communities, because outreach is an important part of their mission[27]. Many hospitals, healthcare systems, and clinics were founded on church sponsorship[27]. In recent years, churches have established more primary care services, such as screening programs and free clinics[27]. Denominations have issued policy statements on health issues, and faith-based agencies have been established to engage in public health issues[27]. Churches may already have many resources available to them, like meeting rooms, kitchens, vans, or gymnasiums, as a starting foundation[22].

The government and church have had limited cooperation in public health. In 1996 under President Clinton, welfare reform allowed religious organizations to provide federally funded services for specific programs[27]. In 2001 this legislation was broadened when President Bush ordered that assistance should be provided in the most effective and efficient manner and so consider religious organizations as partners equally as non-religious organizations[27]. Bush also established the White House Office of Faith-Based and Community Initiatives[27]. However, the issue of separation of church and state has been an obstacle in progress[27], but when churches and

public entities overcome the barrier between private and public sector, the resulting collaboration can be cost-effective and influential[28].

Implementation

Once a church has decided to promote healthy lifestyles in the congregation, the leadership should carefully consider their approach to developing an intervention. First, the planning should include the pastor early in the process[22]. It may also be appropriate to engage the pastor's spouse, especially if the pastor does not have the time and energy to invest in a health initiative[29]. Pastoral support is critical for an effective intervention, not only because church members respect their clergy, but because pastors understand their church better than an outside party[13,30]. Similarly, congregants are more likely to respond positively to their peers who have been trained in health education than an outside health professional's teaching[28,30]. However, a training program for volunteers from the congregation should be strongly considered to create a solid foundation of leadership and health knowledge[28,30].

Once the leadership is established to coordinate the church's health intervention, the next step in the planning process is designing the program. The health element should be integrated with faith elements into the curriculum because faith is the common denominator and the motivation for health behavior change in the church setting[30]. The teaching should also include families, thus potentially impacting the home environment as well as the church environment[30]. Adults are more likely to participate and implement change if the intervention includes programming for their children[30].

Faith-based health interventions also benefit from the inclusion of incentives, both for the church and the congregation. When a program is being planned in coordination with a healthcare organization or a government agency, providing a compensation or incentive of some type will

encourage participation[22,30]. In some cases, external funding may be needed to implement a health intervention if the church does not have the necessary resources. Community and geographic resources should be evaluated for use in an intervention, including neighborhood, community, or government resources, institutions, policies and other activities[13].

Planning should also take into account the culture of each church, rather than following a one-size-fits-all approach. The program should aim to engage its racial and ethnic culture. An intervention at a church that has a majority of Latinos or African Americans should look different than a church with a primarily White congregation[22,30]. The primary language of the congregation should be considered when developing materials and lessons[30]. Level of involvement based on prior experiences is also an important consideration; for example, a congregation that is less involved would not respond well to a comprehensive program[30]. If the church's congregation has more elderly, health education should be targeted to meet their needs. Conversely, a church with many young families should seek to engage the entire family in the program[30]. Other factors include the members' intrapersonal characteristics, interpersonal/social networks, and organizational policies[13]. Together, these can be used to create change on multiple levels of church organization[13].

Depending on the resources available, the church can assess what activities are feasible for their program. Successful interventions in the church setting have used a variety of activities in their efforts, including cooking demonstrations, walking programs, free health screenings, and health education classes on various topics such as nutrition, physical activity, and stress management. More integrated approaches include health education in newsletters, sermons, small group discussions, announcement boards, and weekly bulletins[13,29]. Other church activities that involve food should be changed to support healthier lifestyles, especially for church members with diet-related diseases[22].

As the intervention is carried out, progress and results should be shared with the church to communicate with and encourage congregants[22]. Results and feedback should also be considered to adapt programs to improve effectiveness and appropriateness[31]. Outcomes should also be documented and published if possible in order to extend the data available for analysis and further health behavior interventions in a church setting[31].

America's health is hurting, and churches have the opportunity and means to make an impact. The purpose of this research was to assess the attitudes and beliefs of church members regarding the appropriateness of health intervention in a church setting, in order to either uncover a need to inform churches of their position, or to find a ready and accepting church environment to implement health interventions.

Methods

The research question was developed from the researcher's interest and previous studies on the effect or lack of effect of Christianity on overall health. Prior to beginning efforts at interventions in church settings, the researcher wanted to assess motivation and attitudes of church members towards the appropriateness of health behavior programs through a survey measuring individual and organizational priorities.

The survey was designed as one-part questionnaire for church members, which was explained in a proposal for the Institutional Review Board (IRB). The project proposal was completed according to the IRB's application guidelines. Within two weeks, the research project proposal was approved by the IRB of Ouachita Baptist University (see Appendix A).

The researcher developed the questionnaire using previous studies on similar topics as a model. The questionnaire included basic demographic information such as gender, age, marital status, ethnicity, and children in the household. The second and third part of the questionnaire used the Likert scale to assess beliefs regarding nutrition and physical activity in the church. A five-point scale was used, with a response of "Strongly Disagree" being assigned a value of 1, "Disagree" a value of 2, "Neither Agree nor Disagree" a value of 3, "Agree" a value of 4, and "Strongly Agree" a value of 5. The responses were then tabulated and averaged. No identifying data was collected. The researcher submitted the questionnaire for review by peers revised it for better understanding prior to distribution for data collection. The questionnaire is included in Appendix B.

The researcher solicited potential research sites through churches connected to Ouachita Baptist University Campus Ministries as well as personal contacts. One church in rural Southwest Arkansas responded to the invitation to participate in the survey.

Subjects were recruited from the fitness ministry of a church in rural Southwest Arkansas and participated in the survey voluntarily. No inclusion criteria were specified other than having regular church attendance and completing a questionnaire. Responses were excluded from the results if the subject was under 18 years old.

The researcher delivered printed questionnaires to the survey contact with instructions for administration and collection of the questionnaires. Questionnaires were distributed through the church's health ministry. Over a period of four weeks, questionnaires were administered at the end of classes offered by the fitness ministry.

The researcher tabulated data from completed questionnaires into an Excel® spreadsheet. Excel® formulas were used to calculate totals and averages. No statistical analysis was performed on the data.

Results

The survey received 89 responses to the printed questionnaire. Of these, 70 were answered completely. Due to the small sample size, the incomplete responses were included in the analysis.

The first section of the questionnaire collected data on the sample's demographics. Out of the responses, 18 (20.2%) were male and 54 (60.7%) were female. Seventeen respondents did not indicate a choice for gender.

The majority of the respondents were age 60 years or older. Thirty-three (37.1%) respondents were age 60 to 69 years old, and another 31 (34.8%) were age 70 years or older. Only six (6.7%) participants were between 50-59 years old, nine (10.1%) were between 40-49 years old, eight (9.0%) were between 30-39 years old, and a final two (2.2%) were between 23-29 year old. None indicated 18-23 years old.

The most common marital status indicated among the respondents was married, with 65 (73.0%) participants choosing to say that they were married. Ten (11.2%) respondents were divorced, eight (9.0%) were widowed, and six (6.7%) were single.

More participants indicated that there were no children living in their household than those who indicated that they had children in their household. Sixty-five (73.0%) respondents answered that there were no children in their household, while 24 (27.0%) answered that there was.

The respondents were allowed to indicate more than one ethnicity. The largest proportion of respondents chose Caucasian as their ethnicity. Eighty-one (91.0%) participants chose Caucasian, while one (1.1%) chose African American, three (3.4%) chose Asian, two (2.2%)

chose Hispanic, and two (2.2%) chose Other. None of the participants indicated Pacific Islander as their ethnicity.

The second part of the questionnaire presented a series of statements regarding nutrition in the church. “Nutritious eating is important to you” received an average of 4.5, with 49 (55.7%) respondents indicating they strongly agreed and another 37 (42.0%) indicating they agreed. “Nutritious eating choices are regularly a part of your life” was given an averaged 4.2, with 25 (28.4%) participants indicating they strongly agreed and 54 (62.5%) indicating that they agreed. “Nutritious eating is an important part of a Christian’s lifestyle” received an average of 4.3, with 37 (42.0%) respondents saying they strongly agreed with the statement, while 40 (45.5%) saying they agreed. “Promoting nutritious eating is a priority of your pastoral staff” received an average of 3.75, with 32 (40.0%) respondents agreeing, while 26 (32.5%) choosing to neither agree nor disagree. “Promoting nutritious eating is a priority of the church” averaged 3.5, with 28 (34.6%) respondents agreeing and 33 (40.7%) neither agreeing nor disagreeing. “Promoting nutritious eating should be a priority of the church” received an average of 3.9, with 23 (28.0%) strongly agreed, 33 (40.2%) agreeing, and 23 (28.0%) neither agreeing nor disagreeing.

Table 1. Degree of agreement to statements addressing nutrition in the church

Statement	Nutritious eating is important to you	Nutritious eating choices are regularly a part of your life	Nutritious eating is an important part of a Christian's lifestyle	Promoting nutritious eating is a priority of your pastoral staff	Promoting nutritious eating is a priority of the church	Promoting nutritious eating should be a priority of the church
Strongly Disagree	0	0	0	1	3	1
Disagree	0	1	2	4	5	2
Neither Agree nor Disagree	2	7	9	26	33	23
Agree	37	54	40	32	28	33
Strongly Agree	49	25	37	17	12	23
Total Responses	88	88	88	80	81	82
Average	4.5	4.2	4.3	3.8	3.5	3.9

The second series of statements addressed physical activity in the church (see Table 2). The statement "Physical activity is important to you" received an average of 4.7, with 60 (73.1%) respondents stated that they strongly agreed and another 22 (26.8%) agreed. "Physical activity choices are regularly a part of your life" received an average of 4.6, with 52 (63.4%) participants indicating that they strongly agreed and 27 (32.9%) indicating they agreed with the statement. "Physical activity is an important part of a Christian's lifestyle" averaged 4.2, with 32 (39.5%) respondents strongly agreed and 36 (44.4%) agreed. "Promoting physical activity is a priority of your pastoral staff" was given an average of 3.9 by respondents, with 22 (27.5%) strongly agreed, 32 (40.0%) agreed, and another 22 (27.5%) neither agreed nor disagreed. "Promoting physical activity is a priority of the church" averaged 3.9, with 23 (28.8%) participant saying they strongly agreed and 30 (37.5%) saying they agreed. "Promoting physical

activity should be a priority of the church" was given an average of 4.1, with 28 (35.0%) participants strongly agreeing with the statement, and another 30 (37.5%) agreeing.

Table 2. Degree of agreement to statements addressing physical activity in the church

Statement	Physical activity is important to you	Physical activity choices are regularly a part of your life	Physical activity is an important part of a Christian's lifestyle	Promoting physical activity is a priority of your pastoral staff	Promoting physical activity is a priority of the church	Promoting physical activity should be a priority of the church
Strongly Disagree	0	0	0	0	1	0
Disagree	0	1	1	4	5	2
Neither Agree nor Disagree	0	2	12	22	21	20
Agree	22	27	36	32	30	30
Strongly Agree	60	52	32	22	23	28
Total Responses	82	82	81	80	80	80
Average	4.7	4.6	4.2	3.9	3.9	4.1

Discussion

The results highlight several interesting points. Most of the respondents stated that nutrition and physical activity were important to them at least to some degree. This is encouraging in light of the state of American health[1,4,5,6,10,11]. However, the sample may have been a more health-conscious group than the general American population. Either way, their lifestyles did not directly reflect their convictions. While most indicated that nutrition and physical activity were important to them, they were less inclined to say that they practiced good nutrition and regular physical activity. While unfortunate, the discrepancy was small in this sample. The slight difference in values and behaviors could be caused by a lack of self-discipline, self-efficacy, resources, or knowledge, factors which could easily be applied to the general population. Ideally, the church could step into this gap and help these individuals achieve their goals[13,16,18,20,23,25,30].

The questionnaire also sought to assess the respondents' beliefs about the importance of nutritious eating and physical activity as a Christian. The results showed that most of the survey participants agreed at least slightly that healthy behaviors are part of a Christian lifestyle. However, they were less inclined to concur that healthy behaviors were important to them as a Christian than to them personally, an interesting distinction that may require further research. This difference could be caused by a lack of awareness of the scriptural backings for good health habits, or a belief that physical health only has personal, not spiritual implications[13,29].

The survey looked beyond individual beliefs to assess the efforts of the church to engage in health issues. Participants gave statements regarding the promotion of nutritious eating and physical activity by the pastoral staff and the church a mild positive response. While the majority agreed that their pastoral staff and church made some effort to promote healthy habits, the

researcher thought the response would be stronger from a church with a fitness ministry. A large portion of participants actually indicated that they did not either agree or disagree with those statements. This suggests that perhaps the fitness ministry was an isolated program, and health initiatives do not take place elsewhere in the church. It would be ideal for the whole church to engage in promoting healthy behaviors in order to create a supportive and conducive environment for a healthy lifestyle. As previous research has shown, the support of the pastoral staff is key for designing and implementing successful health initiatives[13,21,22,29,30]. Statements regarding physical activity did receive higher scores than those regarding nutritious eating, perhaps due to the influence of the fitness ministry, which seemed to focus more on physical activity.

The final statement of each section assessed the respondents' belief on whether the church has a role in health behavior intervention. The majority of survey participants either agreed with the statement or were ambiguous. It is interesting to note that they were more likely to agree that healthy behaviors are an important part of a Christian's lifestyle than that the church had a role in promoting those healthy behaviors. As pointed out in other research, individuals may believe that church is a place for spiritual activities and support, and that health programs distract from the church's primary purpose[13,21,23]. Respondents could also believe that healthy behaviors are an important part of any lifestyle, including Christians, regardless of their religious or spiritual status.

Finally, the results show that respondents were more likely to agree or strongly agree with statements regarding physical activity than statements regarding nutritious eating. Due to the prevalence of diet-related diseases in America, the responses seem probable. However, it is discouraging because of the importance of good nutrition, in conjunction with adequate physical

activity, to encourage good health. The results could also be a reluctance to acknowledge or a lack of information regarding the role of nutrition on health outcomes.

The survey had several limitations. The sample was not random, and was biased due to the population from which it was drawn. The survey participants were overwhelmingly white, mostly female, and generally older than age 60. The sample was taken from the fitness ministry of one church, so the results are only generalizable to the participating church.

The questionnaire also may have been a limitation, due to the number of respondent errors. Several did not fill out the back side of the survey, despite the instructions given to the administrator to fill out both sides. Others skipped the gender question, which, though it may have been voluntarily omitted, seems likely to be caused by a design flaw that allowed it to be overlooked by respondents.

While the survey's results are not applicable to other populations, they do bring up areas for future research. The survey did have some encouraging responses regarding physical activity and nutrition in the church setting. However, they do not represent the general opinion of churches in America, and further research is needed.

Conclusion

The survey assessed the attitudes of a Baptist church in Southwest Arkansas about the importance of nutritious eating and physical activity in the church setting. Respondents indicated that healthy behaviors were important to them as individuals, although they were slightly less inclined to agree that those behaviors should be a priority in the Christian lifestyle and the church. Furthermore, their responses indicated that their pastoral staff and churches were not actively promoting these behaviors, so there is room for growth and improvement.

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Appendix A

Ouachita Baptist University

Institutional Review Board

Human Subjects Review Application Cover Sheet

Submission Date: September 13th, 2017

Project Title: Survey of a Southern Baptist Church on Physical Health in the Church

Project Personnel

Name	Dept.	School	Faculty, staff, student
Principle Investigator			
Elizabeth Fast	Nutrition & Dietetics	Natural Sciences	Dr. Detri Brech
Other Investigators			

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: __9__/__13_/__17__ to __12__/__3__/__17__

Estimated number of participants __150__

Funding Agencies or Research Sponsors:

___None_____

_____

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 class participants at First Baptist Hot Springs through the fitness ministry of First Baptist Hot Springs. Eligible participants will be aged 18 years or older. Participants will not receive compensation for completing the questionnaire because of the participants' small requirement and the researchers' lack of funds. The data analysis will take place on the campus of Ouachita Baptist University, although questionnaires will be completed and collected at First Baptist Hot Springs over the period of about two weeks. The investigator of this study has no relationship with the participants who will be recruited from First Baptist Hot Springs. 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 attenders of a Southern Baptist church 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 investigators will not coerce any subjects to participate, nor mislead subjects about the purpose of the study and the purpose of their participation.

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.

The importance of this study is due to Americans' declining health 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 thesis paper and an oral presentation at Scholar's Day.

Conflicts of Interest

The investigator has no conflicts of interest to declare.

Informed Consent

The investigator would like to waive the need for an informed consent because the survey design poses minimal risk to participants in the completion of a short questionnaire and does not include collecting identifying information.

Appendix B

Physical Health and the Church Survey

DEMOGRAPHICS (Circle one)

Gender

Male Female

Age

18-22 23-29 30-39

40-49 50-59 60-69

70+

Marital Status

Single Married

Widowed Divorced

Children at Home

Yes No

Ethnicity

Caucasian African Asian

Pacific Islander Hispanic Other:

For the following sections, select from:

Strongly Agree (SA), Agree (A), Neither Agree nor Disagree (N), Disagree (D), or Strongly Disagree (SD)

NUTRITION

Nutritious eating is important to you

SA A N D SD

Nutritious eating choices are regularly a part of your life

SA A N D SD

Nutritious eating is an important part of a Christian's lifestyle

SA A N D SD →

Physical Health and the Church Survey

DEMOGRAPHICS (Circle one)

Gender

Male Female

Age

18-22 23-29 30-39

40-49 50-59 60-69

70+

Marital Status

Single Married

Widowed Divorced

Children at Home

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Ethnicity

Caucasian African Asian

Pacific Islander Hispanic Other:

For the following sections, select from:

Strongly Agree (SA), Agree (A), Neither Agree nor Disagree (N), Disagree (D), or Strongly Disagree (SD)

NUTRITION

Nutritious eating is important to you

SA A N D SD

Nutritious eating choices are regularly a part of your life

SA A N D SD

Nutritious eating is an important part of a Christian's lifestyle

SA A N D SD →

Physical Health and the Church Survey

DEMOGRAPHICS (Circle one)

Gender

Male Female

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70+

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Ethnicity

Caucasian African Asian

Pacific Islander Hispanic Other:

For the following sections, select from:

Strongly Agree (SA), Agree (A), Neither Agree nor Disagree (N), Disagree (D), or Strongly Disagree (SD)

NUTRITION

Nutritious eating is important to you

SA A N D SD

Nutritious eating choices are regularly a part of your life

SA A N D SD

Nutritious eating is an important part of a Christian's lifestyle

SA A N D SD →

Promoting nutritious eating is a priority of your pastoral staff

SA A N D SD

Promoting nutritious eating is a priority of the church

SA A N D SD

Promoting nutritious eating should be a priority of the church

SA A N D SD

PHYSICAL ACTIVITY/EXERCISE

Physical activity is important to you

SA A N D SD

Physical activity is regularly a part of your life

SA A N D SD

Physical activity is an important part of a Christian's lifestyle

SA A N D SD

Promoting physical activity is a priority of your pastoral staff

SA A N D SD

Promoting physical activity is a priority of the church

SA A N D SD

Promoting physical activity should be a priority of the church

SA A N D SD

Promoting nutritious eating is a priority of your pastoral staff

SA A N D SD

Promoting nutritious eating is a priority of the church

SA A N D SD

Promoting nutritious eating should be a priority of the church

SA A N D SD

PHYSICAL ACTIVITY/EXERCISE

Physical activity is important to you

SA A N D SD

Physical activity is regularly a part of your life

SA A N D SD

Physical activity is an important part of a Christian's lifestyle

SA A N D SD

Promoting physical activity is a priority of your pastoral staff

SA A N D SD

Promoting physical activity is a priority of the church

SA A N D SD

Promoting physical activity should be a priority of the church

SA A N D SD

Promoting nutritious eating is a priority of your pastoral staff

SA A N D SD

Promoting nutritious eating is a priority of the church

SA A N D SD

Promoting nutritious eating should be a priority of the church

SA A N D SD

PHYSICAL ACTIVITY/EXERCISE

Physical activity is important to you

SA A N D SD

Physical activity is regularly a part of your life

SA A N D SD

Physical activity is an important part of a Christian's lifestyle

SA A N D SD

Promoting physical activity is a priority of your pastoral staff

SA A N D SD

Promoting physical activity is a priority of the church

SA A N D SD

Promoting physical activity should be a priority of the church

SA A N D SD