

UNDERGRADUATE PSYCHOLOGY STUDENT'S ATTITUDES TOWARD YOGA
IN THE CLASSROOM

by

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I dedicate this research to my parents. Thank you for your never ending encouragement and support. I love you.

ABSTRACT

Yoga and other non-traditional structured exercises are included in the curriculum of many public schools. This practice has met with resistance by some families who see yoga as a religious practice and not in accord with traditional religious practices. This study was designed to investigate attitudes of college students in a state university in the southeastern United States toward inclusion of yoga in the public school curriculum. Responses from an archival data set were used for this study. A total of 124 undergraduate students in various psychology classes completed the survey. It was found that there was no gender difference in attitudes toward yoga. While there was some directional agreement, there were no clinically significant results for the relationship between religious identification and attitudes toward yoga and political affiliation and attitudes towards yoga. There was a lack of variance in the sample and this should be taken into account for future studies.

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CHAPTER I

INTRODUCTION

Yoga as practiced in the United States has been a trigger for controversy. While many assert that yoga as a health practice promotes physical health and has psychological benefits, others focus on the religious roots of yoga and suggest that yoga is a subtle indoctrination into eastern religious practices. It is recognized that yoga in its original forms differs dramatically from Judeo-Christian religious practices in the United States. Despite the concerns of those who warn of possible “subversion” of youth by the practice, yoga has thousands of practitioners in the United States and has been studied over the past several years to determine the health and psychological benefits of a regular practice. This study utilized archival data from a survey of college students in the southeastern United States who were asked their opinions on the practice of yoga in the public schools.

Types of Yoga

Yoga is an all-encompassing term that may be used to describe several types of practice. A number of forms of yoga are discussed throughout this thesis, including Sahaja, Tibetan, Iyengar, and Hatha yoga. Following are brief introductions to these forms of yoga.

Sahaja Yoga is practice that focuses on a specific type of meditation and self realization. Those who practice are said to feel a gentle cool breeze on the palm of their hands and the top of their heads. Sahaja yoga differs from other yoga/meditations in that

with Sahaja yoga, self-realization comes through kundalini awakening rather than as a result of performing techniques or asanas.

The focus in this practice is the meditation rather than the physical movement (retrieved from http://en.wikipedia.org/wiki/Sahaja_Yoga).

Tibetan yoga has been practiced largely in India and Tibet for centuries and differs from traditional western practices in that it focuses on a psychic wind and the alignment of the mind with the postures practiced. The movement combines with the mental state to remove negative energies and cleanse the chakras. This practice promotes mental and spiritual development, combining movement with meditation (retrieved from <http://www.tibetanmedicine-edu.org/index.php/tibetan-yoga>).

Iyengar yoga, named after B.K.S. Iyengar, is a form of Hatha yoga. Iyengar developed this specific practice of yoga which emphasizes alignment, precision of movement, and performance of posture. Unlike other forms, it makes use of props for practitioners who cannot fully perform a pose and allows for use of belts, blocks, and blankets. Iyengar systematized over 200 traditional yoga poses and is one of the most commonly used practices. This yoga focuses more closely on the actual movement of the postures and exercise rather than deep meditation. (retrieved from bksiyengar.com).

Lastly, Hatha yoga is a holistic practice that combines asanas (postures), shatkriya (purification procedures), mudra (gestures), pranayama (breathing), and meditation. As practiced in the West, Hatha yoga is comprised majorly of asanas which are considered the exercise aspect and is also recognized as a stress-reducing practice (retrieved from http://en.wikipedia.org/wiki/Hatha_yoga#Concept).

Benefits of Yoga in Adult Populations

Yoga and Stress

Yoga has become a popular practice for stress reduction and general health promotion in many areas in the United States. Yoga has been incorporated into workplace and university-based stress management programs (mayoclinic.com; Milligan, 2006; Wolever et al., 2012). Inclusion of yoga and other mind body programs by employers has resulted in reductions in employees' perceived level of stress and increases in employees' positive coping skills.

A controlled pilot study was created to determine whether inclusion of yoga made a difference in workplace stress via employee self-report. The researchers found significant differences in the control versus mind-body interventions for stress management in the work place. Participants in the yoga based intervention had reduced perceptions of stress and less sleep difficulty versus the control group (Wolever et al., 2012). Yoga has been integrated into university-based mental health treatment. Milligan (2006) implemented yoga for stress management as a complementary alternative treatment in a university counseling center and found the practice to be effective in stress reduction. The Mayo Clinic webpage cited yoga as an effective tool in the reduction of stress and anxiety (mayoclinic.com).

A study published in the *Journal of Black Studies* of African American College students showed that those who participated in a meditation activity had significantly higher GPAs for the semester as well as cumulatively than those who did not participate in the meditation exercises (Hall, 1999). This may suggest that the focus on attention

emphasized in yoga and meditation has implications for schools and learning settings as a whole.

Yoga and Pregnancy, Cancer & Terminal Illness

Yoga has long been used as a form of medicine in eastern cultures. It is considered a form of alternative or complementary medicine in the United States and as a positive practice for health. The practice of yoga has gained popularity in recent years as people are looking for holistic approaches to health and wellness rather than the mode of Western medicine. A survey published in *Medical Care* (Ni, Simile, & Hardy, 1999) showed that roughly 28.9% of adults in the US utilized one or more forms of Complementary or alternative medicine. Studies have shown yoga to be beneficial to all sorts of physical illness, either by itself or in conjunction with some other form of treatment. In addition to reducing stress in day to day life, yoga has also been shown to have stress management benefits in medical settings as well (Cohen, Warneke, Fouladi, Rodriguez, & Chaoul-Reich, 2004; Culos-Reed, Carlson, Daroux, & Hatelty-Aldous, 2005; Satyapriya, Nagendra, Nagarathna, & Padmalatha, 2008).

Published in the *Journal of Gynecology and Obstetrics*, research by Satyapriya et al., (2008) found that in a sample of pregnant women, the perceived stress of the control group increased by 6.6% while the perceived stress of the treatment group (that engaged in the practice of yoga) decreased by 31.57%. Research by Narendran, Nagatathna, Narendran, Gunasheela, and Nagendra (2005) found positive effects of yoga on pregnancy outcomes.

Pregnancy outcomes that included the following factors: child birth weight, experiences of preterm labor, and pregnancy-induced hypertension were found to be significantly better for mothers who practiced yoga versus mothers in the control group.

Yoga has also been shown to have positive effects for the period of perimenopause. A case analysis of 6 women experiencing symptoms of menopause showed that those who practiced yoga had an overall decrease in symptoms experienced. The researchers concluded that the practice of yoga functioned to increase their quality of life (Mastrangelo, Galatino, & House, 2007).

A study of the psychological and physiological effects of a yoga program for breast cancer survivors (Culos-Reed et al., 2005) showed the yoga group had fewer symptoms of stress than the control group. The researchers noted a trend toward increased positive mood and decreased tension. Additionally, they found significant improvements in quality of life, and emotional functioning among the yoga group. Importantly, the yoga intervention group showed decreases in dyspnea as well as diarrhea. An article published in the *Journal of Oncology* found that a multiethnic sample of breast cancer patients who participated in a yoga program realized a significant increase in social well-being and quality of life (Moadel et al., 2007). A study by Ulger, Vardar, and Yagh (2010) of use of yoga with survivors of breast cancer found that overall quality of life significantly improved for patients with breast cancer who were involved in the practice of yoga. Post treatment state and trait anxiety scores were found to be significantly reduced when compared to initial scores on the State-Trait Anxiety Inventories STAI-I and STAI-II.

Tibetan yoga was used to improve psychological functioning in an intervention with lymphoma patients that focused on factors promoting sleep hygiene (Cohen et al., 2004). The results showed that patients who participated in the Tibetan yoga intervention had significantly lower sleep disturbance scores than those in the control group. Improvements reported included better quality of sleep, shorter sleep latency, longer sleep duration, and less use of sleep medications.

A randomized six-month controlled trial of adult patients with multiple sclerosis assigned participants to one of three separate groups, Yoga classes group, Exercise Classes group, and a wait-list control group. Participants were encouraged to minimize changes in CNS-active medications. Yoga classes were 90 minutes once a week and followed the Iyengar Yoga model. Exercise classes consisted mainly of bicycling. Results showed that yoga helped decrease fatigue in patients with MS to the same degree as traditional exercise programs (Oken et al., 2004). Research shows that patients with chronic obstructive pulmonary disease (COPD) have benefited from yoga as an intervention for dyspnea. In this study, yoga training was found to be safe and reasonable as an effective intervention. Training and practice in yoga resulted in a decrease in dyspnea related distress (Donesky-Cuenco, Ngyuyen, Paul, & Carrieri-Kohlman, 2009).

Yoga for Pain Management

In addition to its many other physical health benefits, yoga can be used as a form of pain management, particularly for those with chronic pain conditions. A 1998 study published in the *Journal of the American Medical Association* reported on efficacy of yoga based interventions for individuals with carpal tunnel syndrome (Garfinkel et al.).

The study included 42 participants who were randomly assigned to either the yoga group or a control group; 22 were assigned to the yoga group and 20 to the control. Those in the yoga group participated in an 8 week program that focused on postures to strengthen the upper body to help create greater flexibility and alignment while promoting better posture. Participants in the control group received standard wrist splints with a metal insert to use in conjunction with their current treatment. Those who participated in the yoga group showed significant improvements in grip strength and pain reduction.

There are also implications for the use of yoga in controlling chronic lower back pain. A study published in *SPINE* (Williams et al., 2009) showed that yoga practice resulted in significant decreases in functional disability and depression in adults with a diagnosis of chronic lower back pain. Individuals in the experimental group participated in bi-weekly yoga classes specifically designed for individuals with lower back pain while the control group continued their standard medical care, both for a period of 24 weeks. The yoga group reported significantly decreased intensity of lower back pain. Sherman, Cherkin, Erro, Miglioretti, and Deyo (2005) compared results of patients randomly assigned to one of three interventions: an exercise intervention group, a self-help book intervention, or a yoga group. Those who participated in the yoga group recorded fewer visits to the doctor for back pain related symptoms. Additionally, those who participated in the yoga group had greater decreases in Disability and Symptom Bothersomeness scores after 26 weeks of yoga training and practice.

Yoga's efficacy in pain management for individuals with lower back pain was reported in a 2005 study published in the journal *PAIN* (Williams et al.). After a 16 week

intervention, those who participated in the yoga group using Iyengar yoga showed significant reductions in pain intensity, functional disability, and pain medication use compared to those in the educational control group.

When used in a predominantly minority population, those who participated in the 12 week yoga program for 75 minutes each session showed a decrease in mean pain scores and disability scores over the scores of the usual care control group (Saper et al., 2009).

Yoga and Depression/Anxiety

Yoga has also been researched as an alternative medicine for mental health issues, particularly depression and anxiety. The *Journal of Clinical Psychology* published a study by Butler et al. (2008) that looked at the use of yoga with depression. A sample of 46 men and women with ages ranging from 22-80 years were divided into 3 groups, a yoga group, a hypnosis/psychotherapy group, and a psychoeducational group. Those assigned to the yoga group participated in group meditation, Hatha yoga, breathing techniques, guided imagery, and mantra repetition in 2 hour weekly group sessions for duration of 8 weeks. Results showed that those who participated in the meditation and yoga group had significant remission as compared to the control group.

The hypnosis/psychotherapy group did demonstrate remission which failed to reach statistical significance. With a 77% remission rate for depressive symptoms among the yoga group, results of this study suggest that yoga can be an effective treatment for patients with depression.

Shapiro and Cline (2004) also found that for adults, yoga practice was associated with positive changes in mood. They looked at the pre and post mood measurements of 8 women and 3 men with ages ranging from 23-59 years. Each participant attended a 90 minute class twice a week for 9 classes. They found that at the end of the classes there were significant changes in mood, with negative mood scores decreasing (Shapiro & Cline, 2004).

The *Journal of Psychology* published a study in 2003 that looked at mood altering effects of mindful versus aerobic exercises (Netz & Lidor, 2003). A group of female college students in Israel enrolled in a 1 year enrichment program and were given choices among yoga, Feldenkrais, swimming, and dance aerobics. All groups met in 90 minute classes led by trained instructors. While exercise classes have been shown to have positive mood altering effects, yoga exercises were shown to improve mood in a single class.

With respect to measured physiological effects of yoga, a 2004 study showed that men ages 25-35 who participated in a 3 month yoga practice had increased cardio respiratory performance. In addition, they experienced improvements in their psychological profile. Plasma melatonin also showed an increase (Harinath et al., 2004).

Yoga has earned status as an effective alternative to anxiety management techniques and traditional therapies for stress, anxiety, and depression.

Streeter et al. (2010) showed that yoga had a positive effect on participant mood and anxiety. The study documented positive changes in GABA levels when compared with those of participants in a walking program.

The Society of Behavioral Medicine published a study in 2004 which showed that practice of Hatha yoga functioned to significantly decrease scores on the Perceived Stress Scale (PSS) and salivary cortisol levels when compared to those measures in a lecture control group. Those who practiced yoga had similar scores on the PSS as did those who practiced African dance (the African dance group), but differed in salivary cortisol levels (West, Otte, Geher, Johnson, & Mohr, 2004).

A 2007 study in *Complimentary Therapies in Medicine* showed that scores for stress and anxiety improved after a 10 week intervention for yoga participants. In this study, yoga was shown to be more effective than relaxation for improvement in mental health. In addition, participants rated their quality of life as improved (Smith, Hancock, Blake-Mortimer, & Eckert, 2007).

A study out of India reported that both state and trait anxiety levels were reduced after participation in a yoga intervention when compared to participants' scores prior to the intervention. The study was found to have similar effects across all age groups with the most significant changes occurring in the 19-39 year old age group. Anxiety-alleviating effects did not differ by gender (Gupta, Khera, Vempati, Sharma & Bijlani, 2006).

A study was created to determine effects of yoga practice on two commonly occurring mental health conditions, depression and anxiety. No differences in levels of depression were found to be statistically significant. However, women in the experimental group showed significant decreases in state and trait anxiety (Javnbakht, Kenari, & Ghasemi, 2009).

Lavey et al. (2005) found that yoga practice had a significant effect on mood. Participants in this study were psychiatric inpatients. Those who participated in the yoga classes showed significant decreases in scores on the Profile of Mood Subscales on tension-anxiety, depression-dejection, anger-hostility, fatigue-inertia, and confusion-bewilderment following the class when compared to scores prior to beginning yoga practice.

In a 2007 study published in *Evidenced Based Alternative Complimentary Medicine*, individuals taking antidepressants but with residual symptoms showed a significant decrease in depression severity scores and an increase in mood score from pre to post treatment. Twenty-five individuals participated in the 8 week Iyengar yoga program consisting of 3 classes per week ranging from 60-90 minutes (Shapiro et al., 2007). Two yoga based relaxation techniques were shown to significantly improve scores on working memory tasks as well as decrease state and trait anxiety immediately after participation (Subramanya & Telles, 2009). A study conducted with young professional musicians showed that following participation in a yoga program, performance anxiety scores were reduced and the participants experienced lower scores in tension/anxiety and anger/hostility (Khalsa, Shorter, Cope, Wyshak, & Sklar, 2009).

The above referenced studies have shown wide applications of yoga-based intervention in both medical and psychological settings. These studies have focused on the benefits of yoga with adults across a number of conditions. They demonstrate the value of adding yoga to western mental health and medical settings to help participants make positive gains, including both psychological and cognitive benefits. In addition to

studies with adults of all ages, studies have shown yoga to be an effective intervention in children and youth with a wide array of physical and psychological issues.

Yoga and Children

Research with yoga practice and children is not as abundant as that with adults. Yet, there have been several promising studies on the inclusion of yoga in schools as well as use of yoga as an intervention in children with ADHD. A number of schools have incorporated yoga as a part of their curriculum with promising results in behavior management.

Yoga and ADHD

The *Journal of Attention Disorders* published an article in 2004 that examined effects of yoga on the attention and behavior of boys with attention deficit/hyperactivity disorder (Jensen & Kenny, 2004). The study found significant differences between the control and treatment group on the Conner Rating Scales for both parents and teachers. The yoga group showed improvements from pre to post test on 8 of the Conner subscales. The yoga group showed a decrease in mood swings, temper outbursts, and crying fits.

A pilot study conducted with children in an Indian school showed that after a 6 week multimodal peer-mediated yoga intervention, over half of the children showed improvement in academic and behavioral performance. These results were consistent across age and gender. Parents and teachers used the Vanderbilt behavioral scores method of reporting behaviors (Mehta et al., 2011).

An Israeli school incorporated a yoga program to help with children who had been affected by war (Ehud, An, & Avshalom, 2010). A group of 122 children in grades

3, 4, & 6 participated in the program. They participated in 13 yoga sessions incorporated into school activity over a 4 month period. The researchers found statistically significant improvements in attention span, restlessness, and attentiveness.

Harrison, Manocha, and Rubia (2004) found that children who participated in Sahaja yoga meditation as a family treatment program for children with ADHD had significant improvements in symptoms of ADHD. These improvements were measured using the Conners Parent Teacher Questionnaire, and were found independent of psychopharmacological treatment. The researchers reported that in some cases, parents reported a decrease in medication treatment during the course of the yoga program.

Yoga for Well-Being and General Medical Conditions in Children

Berger, Silver, and Stein (2009) conducted a pilot study with 4th and 5th graders that focused on effects of yoga on inner city children's well-being. The children participated in one of two after school programs for 12 weeks. One program included a one hour yoga class while the other did not. The study showed that children who participated in the yoga group demonstrated benefits in stress management and demonstrated increases in measures of well-being as well as decreases in negative behaviors. Additionally, the children who participated in yoga demonstrated gains in physical balance.

Benavides and Caballero (2009) conducted an uncontrolled pilot study to determine if yoga is helpful for weight loss. Working with Hispanic children, the researchers' findings showed preliminary positive results for yoga as adjunctive to weight

loss interventions. Additionally, yoga was found to be effective in increasing the children's self-esteem and improving symptoms of depression and anxiety.

In a randomized trial of adolescents with irritable bowel syndrome (IBS), (Kuttner et al., 2006) showed that those who participated in the yoga intervention had reduced functional disability, anxiety, and emotion-focused avoidance, compared to those who were in the control group. The experimental group also reported fewer gastrointestinal symptoms. Adolescents in the experimental group reported that they found the intervention to be helpful and displayed a willingness to continue using yoga as a management technique for IBS (Kuttner et al., 2006).

Yoga has been used as treatment for other problems as well. David Derezotes (2000) published an article documenting positive outcomes with yoga as a part of rehabilitation training with adolescent sex offenders. Overall, the ratings by adolescent participants for yoga inclusion were positive, with many reporting that it helped with stress reduction. In addition, they reported that yoga helped with anger control, which many identified as a trigger for their offending behaviors.

A study conducted with 97 public school children in 4th and 5th grade in Baltimore showed significant improvement in Involuntary Engagement, Rumination, Intrusive Thoughts, and Emotional Arousal (Mendelson et al., 2010) following participation in a yoga program. The study was conducted to determine the feasibility and preliminary outcomes of a school based intervention using yoga specifically with urban youth. The intervention focused on students practicing yoga based physical activities and breathing techniques.

Yoga and Religion

Studies demonstrate the effectiveness of yoga practice and yoga has gained credibility as a successful therapeutic intervention for many medical and psychological ailments. However, many people argue that yoga is a form of religion and as such should not be included in treatment or used in public schools.

In an article published in *Religion & Education* (Douglas, 2010), the author states that “some Christian Americans view the inclusion of yoga as a violation of the separation of church and state.” In Aspen, Colorado parents lobbied the school board against inclusion of yoga in the public schools, arguing that yoga’s Hindu religion foundation conflicted with the separation of church and state (MSNBC.com). Numerous Christian groups have protested against the use and practice of yoga, not only in schools but also as a means for personal fitness. Yet some authors have written books that promote yoga-inspired programs termed “PraiseMoves” that use yoga like postures renamed to promote western values and eliminate the influence of eastern religions.

Yoga and Politics

Given the negative reactions towards yoga from many with conservative religious beliefs, the fact that those individuals are vocally opposed to research and programs that focus on yoga and receive tax payer funding is not surprising. Yoga programs have been targeted for elimination in, for example, an Albuquerque detention center (aol.com). Parents in California considered taking legal action against the school system for allowing free yoga classes in their school. One parent wrote the school superintendent claiming that allowing yoga in the school was against the Constitution and

that he (the parent) would take legal action if the classes were not stopped (theblaze.com). A family in California is currently suing their local school district over their child's participation in a twice weekly, 30 minute yoga program. The school has a fulltime yoga teacher on faculty with grant funding from a pro-yoga group. The family claims that the incorporation of yoga into the classroom violates the separation of church and state (retrieved from <http://www.foxnews.com/us/2013/02/20/california-school-district-sued-over-yoga-program-opponents-charge-it-violates/>). The fight against yoga is also seen in arguments against the National Institute of Health's branch of complementary and alternative medicine, (the NCCAM), established in 1998 (nccam.nih.gov).

Given the mixed reception to the concept of yoga in the public schools, this study was designed to investigate the attitudes of students in a state university in the southeastern United States to including yoga in the schools.

An archival data set consisting of surveys of attitudes completed by undergraduate psychology majors was used in this study. The following hypotheses were tested.

Hypothesis One: There will be no difference in endorsement of yoga in the schools by gender.

Hypothesis Two: Religious affiliation will correlate with respondent attitudes towards yoga. Respondents who identify themselves with a liberal religious orientation or as having no religious beliefs will endorse a more positive attitude towards yoga in public schools.

Hypothesis Three: Participants who identify themselves politically as liberal will have a more positive attitude towards yoga in public schools.

CHAPTER II

METHOD

Participants

Responses from a sample of 124 participants from MTSU undergraduate psychology courses were collected and archived. The data set consists of information from a demographics form asking age, sex, size of hometown (as perceived by respondent), self-described religious orientation and political orientation and a survey of attitudes toward the use of yoga in the schools. A copy of the survey is appended to this thesis.

Materials and Procedure

The survey used in this study was developed by Dr. Gloria Hamilton and myself and was revised by Dr. Hamilton subsequent to analysis of pilot data from 12 volunteers. Participation in this study was offered to students in select psychology classes. Participants were instructed that participation was voluntary and there were no penalties for choosing not to participate. Extra credit was given to all students regardless of participation. Prior to dissemination of the survey, participants were given an informed consent document describing the purpose of the survey and how the information would be used. One of the survey questions instructed participants to choose the option that best fit their views, while others were open ended, allowing participants to answer questions in their own words. Participants were asked to not put their names on the survey form.

Participants were asked to provide information about race, gender, age, level of education and religious affiliation. Participants answered survey questions regarding personal opinions towards yoga and whether yoga should be taught in public schools.

CHAPTER III

RESULTS

Data that were analyzed was archival and collected during the Spring, 2012 semester. Descriptive data (demographics) were analyzed and results are provided in tables 1-4.

Table 1
Gender of Participants

Gender	Frequency
Male	41
Female	83
Total	124

Table 2
Ethnicity of Participants

Ethnicity	Frequency
African American	25
Asian American	2
Caucasian	93
Hispanic	3
Total	123

Table 3
Area of Country for High School

State of High School	Frequency (N)
Tennessee	105
Southern States	9
Other	9
Total	123

Table 4
Type of High School Attended

Type of High School	Frequency (N)
Public	113
Private	7
Home school	2
Total	122

For questions regarding yoga, of the 124 students who completed the survey 80 stated they had tried yoga at least once; of those who had tried only 14 identified as practicing regularly. When asked whether or not they felt that yoga would help with issues of stress, 85 answered yes with 18 answering no. Several participants opted not to answer the question, with many stating that they had not tried yoga or did not have sufficient information regarding yoga in order to answer accurately and honestly. Of the 124 participants, 88 said they felt yoga should be taught or at least offered as a curriculum in classes, whereas 27 said no and 9 did not answer the question.

Table 5
Information About Yoga Experiences and Views

Yoga Questions	Frequency (N) of “Yes”
Tried Yoga	80
Practice Regularly	14
Help with Stress	85
Taught in School	88

Table 6 shows the frequency of those who identified themselves as spiritual or not.

Table 6
Religious and Spiritual Self-Ratings

Self-Identification Rating	Religious – “Yes”(N)	Spiritual – “Yes” (N)
No	45	25
Somewhat	47	50
Very	31	48

Out of the participants who identified themselves as either “Religious” or “Spiritual,” 48 claimed they were affiliated with an organization such as a church, mosque, synagogue, etc. with 74 stating that they were not. Participants were then asked to identify the political views of their churches, etc.

Thirty-Three identified their church, etc. as politically conservative with 22 reporting a liberal political affiliation for their church, etc. Table 7 shows the frequencies of politically affiliation of students.

Table 7

Self-Identified Political Affiliation

Political Affiliation	Frequency (N)
Conservative	21
Liberal	39
Moderate	55

An independent samples t-test was used to determine the significance of gender on whether or not students had a more positive attitude towards yoga. The t-test showed that gender did not play a significant role in students' attitudes towards yoga in schools $t(113) = -0.500, p > .05$. These findings were consistent with Hypothesis 1 which stated there would be no difference in endorsement of yoga in schools based on gender.

Hypothesis 2 looked at the relationship between religious affiliation and attitudes towards yoga in schools. It was hypothesized that those individuals who describe themselves as affiliated with a more liberal religious organization would have a more positive attitude towards incorporating yoga in schools. A Pearson Product Moment R Correlation was used to determine the relationship if any, between the variables. It was found that while there was a positive relationship between the variables, it was not statistically significant $r(49) = .182, p = .20$. Hypothesis 2 is rejected.

Hypothesis 3 discussed the relationship between participants' personal political views and their attitudes towards yoga in schools. It was hypothesized that those individuals who identified themselves as having a more liberal political orientation would have a more positive attitude towards incorporating yoga in the classroom. A Pearson Product Moment R Correlation was used to determine the relationship if any, between the variables. It was found that there is a negative relationship between the variable which is consistent with the hypothesis; however there was no statistical significance $r(105) = -.205, p = .80$. Hypothesis 3 is rejected.

CHAPTER IV

DISCUSSION

While our results did not prove to be statistically significant, they did show differences in groups which are of interest for further study. It was interesting that in a state typically classified as conservative and within the “Bible Belt,” there was not more opposition to yoga in schools as seen in the literature review. It was also interesting that most people identified themselves as politically moderate rather than liberal or conservative.

A limitation of the study is a lack of variance within the sample. All of the students who participated were undergraduate students and all were attending undergraduate psychology classes. Students in psychology classes typically tend to be more open to alternative ideas. There was not much variance in gender with 83 of the 124 participants being female and 41 being male.

The sample was predominantly Caucasian ($n = 93$), followed by African American ($n = 25$), Asian American ($n = 2$), and Hispanic ($n = 3$). The homogeneity in education, race/ethnicity and gender is a major limitation of the study. It would be of value to look specifically at varying groups to determine if gender, race, or major of study have an impact on attitudes towards incorporation of yoga in the schools.

Fewer than half of the sample identified themselves as very religious ($n = 31$), while 45 identified themselves as having no religious orientation or as being only “somewhat” religious ($n = 47$). Of those who identified as religious, 48 stated an affiliation with a church and 33 claimed a conservative church affiliation. The hypothesis

that those with a strong conservative religious orientation would have a more negative attitude toward incorporating yoga in the classroom was not supported by the data. While the results did show a relationship and in the direction assumed, the lack of power and variance within the sample did not establish a statistically significant relationship.

The survey included a section where participants could explain their views on whether or not they believed yoga should be incorporated into the classroom. What was most interesting in these responses was that the majority who said no did not justify their attitude in terms of religion, faith, or political affiliation but rather in terms of usefulness. Several stated that they felt the time that could be used for yoga would be better spent elsewhere. Others stated that a focus on more physical cardiovascular activities would be a better fit and would benefit students more than a simple mat stretching program. A few did state that a yoga program could interfere with others' personal beliefs in that yoga would be an assumed mandatory aspect of classroom activity. Several felt that it would be a great elective and would help with reducing student stress, but that it should not be mandatory because yoga was "not for everyone" and that "some people would not be able to do it successfully." This focus on physical education warrants future exploration.

While this study did not result in clinically significant results, it did show a relationship between the variables which warrants future research. In the future, it might be more useful to operationally define all categories rather than allow students to define what "religious, spiritual, conservative, liberal, or moderate" mean through the process of self-selection of terms. For example, several people identified themselves as religious but did not claim to be spiritual. This could reflect the possibility that some may take the

term to refer to a pagan or mystical type of belief whereas others find religion and spirituality to go hand in hand. Another area of confound is that of political identification. The majority of students identified themselves as politically moderate; however the survey did not require that students define what “politically moderate” meant to them. Students who identified themselves as politically moderate may have used the term to avoid identifying as either conservative or liberal, both of which may have acquired negative connotations.

For future studies it may also be useful to define what is meant by having yoga taught in school. The practice of yoga in the schools could refer to incorporation in a mandatory physical education class, a stand-alone elective, or incorporation into a classic classroom model that requires spending 15 minutes each day going through a vinyasa and using that to focus and relax. Additionally, the purpose of the yoga practice could be specified.

For future studies I think it would be interesting to survey more diverse groups than university undergraduates. Examples of such groups include stay at home moms versus working mothers, and individuals not attending a university and with education limited to the public schools. It may be that there is a generational difference between students and their parents. It may also be of interest to focus on campus political groups with individuals who have strong political convictions either way and determine if there is a relationship between these affiliations and attitudes toward yoga in the classroom.

Given the controversial nature of the topic as shown in fights with school boards around the country, the findings of this study are positive for incorporating yoga in the

schools to promote physical fitness and stress management. It would be interesting to take this idea to local schools and get the perspectives of teachers on yoga in the schools. Finally, solid research on benefits of yoga would provide data to determine if yoga is a good fit in the schools.

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APPENDICES

Appendix A

IRB APPROVAL

January 31, 2012

Amy Gray, Dr. Gloria Hamilton

Department of Psychology

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Protocol Title: "Attitudes towards controversial teachings in the public schools."

Protocol Number: 12-195

Dear Investigator(s),

I found your study to be exempt from Institutional Review Board (IRB) continued review. The exemption is pursuant to 45 CFR 46.101(b) (2). This is because your study involves the use of survey materials and the information was recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

You will need to submit an end-of-project report to the Office of Compliance upon completion of your research. Complete research means that you have finished collecting data and you are ready to submit your thesis and/or publish your findings. Should you not finish your research within the three (3) year period, you must submit a Progress Report and request a continuation prior to the expiration date. Please allow time for review and requested revisions. Your study expires on **January 31, 2015**.

Any change to the protocol must be submitted to the IRB before implementing this change. According to MTSU Policy, a researcher is defined as anyone who works with data or has contact with participants. Anyone meeting this definition needs to be listed on the protocol and needs to provide a certificate of training to the Office of Compliance. **If you add researchers to an approved project, please forward an updated list of researchers and their certificates of training to the Office of Compliance before they begin to work on the project.** Once your research is completed, please send us a copy of the final report questionnaire to the Office of Compliance. This form can be located at www.mtsu.edu/irb on the forms page.

Also, all research materials must be retained by the PI or **faculty advisor (if the PI is a student)** for at least three (3) years after study completion. Should you have any questions or need additional information, please do not hesitate to contact me.

Emily Born

Compliance Officer

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