

**CREATING A COLLEGE WOMEN'S WELLNESS PROGRAM:
INNOVATION FOR HEALTH PROMOTION**

By

Joe Malone

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy in Human Performance

Middle Tennessee State University
May 2015

Dissertation Committee:

Dr. Don Belcher, Chair

Dr. Gloria Hamilton

Dr. Steve Estes

Copyright by
Joe Malone
2015

This is dedicated first of all to God from whom every good thing I've ever had or done has come. Next it is dedicated to my family and especially my parents who though not highly educated were incredibly brilliant and effective in the raising of my siblings and me. My coaches, who other than my parents, have been the most influential people in my life, they are the reason I am the coach I am today. I am deeply indebted to all of the students/athletes I have ever had the privilege to work with over the years and also the ones in the future. They have been and always will be an endless source of inspiration to me. Finally, I would most like to dedicate this effort to my wife Jody Lynn. Without her this project would not have been possible. She is a unique person who is a great wife, mother, grandmother, sister, singer, and artist. She truly has a heart of gold and is the most loving person I have ever known. She is the love of my life and a jewel of a woman. They don't come any better than her and I love her for all she is and all she has done to support me in all I have endeavored to accomplish. Working as a team we hope to make a positive difference in many people's lives!

ACKNOWLEDGEMENTS

I appreciate very much the guidance and mentorship of my committee members. Dr. Don Belcher provided ongoing guidance and support throughout the duration of the project. Not only that, he was a kindred spirit intellectually and emotionally and had the same prosocial intentions and hopes that I have. He and I want to make a positive difference and we work from a shared pragmatic philosophical paradigm. Dr. Gloria Hamilton has been a source of inspiration since I arrived at MTSU. She and I are also kindred spirits. She has provided many profound insights and much support over the years and has acted as a trusted confidant. Dr. Steve Estes was instrumental in the establishment of the Women's Personal Conditioning class and has provided an important perspective on the history and sociology of physical education. Dr. Scott Colclough has been a source of encouragement and support from my earliest days on campus. Dr. Monica O'Rourke also provided great support and friendship all along the way.

I am deeply grateful to all members of my family who have shown amazing patience as this process has taken place. First of all, my parents Herman and Betty Malone who have been supportive on every level. They both taught me from a young age how to work hard and how to treat people with respect and dignity. My dad is the hardest working and best man I have ever known and mom matches him. Also, I would like to thank my father and mother-in-law Jack and Mavis Michael who have taught me the value of unconditional love. They truly have never met a stranger. My siblings both on my side of the family and my wife's have been very supportive.

Our children and son-in-law Colby are to be thanked for all of their efforts and loving support. Our daughter Deana, who has worked with me numerous times in health promotions, and adds a special dimension as a role model to our audiences deserves special thanks. She brings a unique element of fun to every event. Our son Kyle a decorated helicopter pilot serving his country in Afghanistan also deserves special gratitude. His whole life he has had to put up with dad working to try to benefit others. He has shown support and understanding the whole way.

Finally, I would like to acknowledge our grandchildren Reade, Riley and Greytin for their patience with Poppie's face always being in a computer screen or reading research papers when it was playtime. I hope they realize someday that this was about trying to make a better world for them to live in.

ABSTRACT

The purpose of the study was to understand the meaning making related to and the behavioral effects of a college women's wellness program at a mid-size southeastern coeducational university. The motivation for this study emanated from a desire to understand how college women constructed meaning and reacted to female-centered, holistic, physical activity, nutrition and general health curricular models and lifestyle settings.

The researcher employed a qualitative design that included data collected through focus group interviews (n=10) from 10 classes with a total of 182 students and in-depth interviews (n=32). Responses were coded and analyzed using Saldana's (2009) codes to theory model for qualitative inquiry and from the focus groups four overarching themes emerged. They were: (a) the presence of a female paradigm, (b) a sense of value and in some cases accomplishment of a healthy lifestyle change (c) having experienced cohesion through positive community (d) perception of the benefit of positive motivation. The focus groups were conducted at the end of each semester. In order to gain longitudinal perspective in-depth interviews were conducted with class alumni from 26 months post-class to 2 months post-class. The overarching themes from the focus groups were confirmed over the passage of time. In addition, a distinct overarching theme emerged: transformational empowerment. Young women seemed to gain better on-going control over their behaviors physically, emotionally and mentally and were able to build healthier holistic lifestyles. What emerged from the focus groups and the in-depth

interviews was a thick and rich account of the meanings constructed through their experiential learning in a holistic health promoting environment.

TABLE OF CONTENTS

| | |
|--|----|
| LIST OF FIGURES/TABLES..... | xi |
| CHAPTER I: INTRODUCTION..... | 1 |
| Research Problem..... | 6 |
| Significance of Study..... | 6 |
| CHAPTER II: LITERATURE REVIEW..... | 9 |
| Introduction..... | 9 |
| Understanding the Primacy of This Demographic for Healthy Change..... | 9 |
| The Need for New Pedagogies and the Potential of Sorority Influence..... | 10 |
| Student Success and the Lifetime Picture of Female P/A and PE..... | 10 |
| Importance to the American Future..... | 10 |
| Theoretical Underpinning..... | 11 |
| Optimal Brain Development Stage..... | 12 |
| Metabolic Imprinting of Obesity..... | 13 |
| Adolescent Females Physical Activity Patterns..... | 15 |
| Adolescent Female Physical Activity Barriers and Outcomes..... | 16 |
| The Role of Stress and Other Challenges to Well-being for College Females..... | 17 |
| Innovative Women’s Wellness Curriculum Models and Rationale..... | 18 |
| Impact of Group Cohesion in Physical Activity Classes..... | 22 |
| Hedonic Versus Eudaimonic Wellness Factors..... | 25 |
| Sorority Wellness Contributions and Challenges..... | 27 |
| Sorority Wellness Initiatives..... | 30 |
| Wellness Programs in College Settings..... | 33 |
| Targeted P/A and Nutrition-based Women’s Wellness Interventions..... | 36 |
| Web-based Interventions..... | 38 |
| College Women’s Student Success and Retention Factors..... | 39 |
| General Engagement..... | 40 |
| Academic and Social Engagement..... | 41 |
| Teaching Strategies..... | 42 |
| Young Women’s Physical Activity Patterns Post-College..... | 43 |
| The State of U.S. Physical Education in 4-Year Universities..... | 44 |
| School-Age Program Preferences and the Curves Phenomenon..... | 44 |
| Summary..... | 46 |
| Creation of Innovation..... | 49 |

CHAPTER III: STUDY 1 WHAT MEANINGS RELATED TO THEIR WELL-BEING WERE STUDENTS MAKING AT THE END OF THEIR SEMESTER’S WPC EXPERIENCE?.....53

| | |
|---|----|
| Participants..... | 53 |
| Instruments..... | 54 |
| Procedures..... | 54 |
| Data Analysis..... | 55 |
| Overarching Themes..... | 56 |
| Female Paradigm..... | 56 |
| Gender-Specific Preference..... | 57 |
| Addressing the Whole Woman..... | 59 |
| Gender Differences Knowledge..... | 60 |
| Influence of Sororities..... | 61 |
| Women’s Health Impact on Future Family..... | 62 |
| Healthy Lifestyle Change..... | 62 |
| Health Knowledge..... | 63 |
| Metacognition..... | 64 |
| Self-Care..... | 65 |
| Effectiveness of Visual Aides..... | 66 |
| Activity Levels Change from High School to College..... | 67 |
| Cohesion Through Positive Community..... | 67 |
| Positive Culture..... | 68 |
| Social Support..... | 69 |
| Stress Reduction..... | 69 |
| Positive Motivation..... | 70 |
| Motivation..... | 70 |
| Confidence..... | 71 |
| Expansive Positive Effect..... | 72 |
| Reaction Responses..... | 73 |

CHAPTER IV: STUDY 2 WHAT MEANINGS RELATED TO THEIR WELL-BEING DID STUDENTS MAKE LONGITUDINALLY FROM THEIR WPC EXPERIENCE?74

| | |
|--|----|
| Participants..... | 75 |
| Procedures..... | 76 |
| Data Analysis..... | 76 |
| Overarching Themes..... | 77 |
| Female Paradigm..... | 77 |
| Healthy Lifestyle Change..... | 89 |
| Cohesion Through Positive Community..... | 94 |
| Positive Motivation..... | 99 |

| | |
|---|-----|
| Transformational Empowerment..... | 103 |
| Cumulative Effects..... | 112 |
| Class Outgrowths..... | 117 |
| | |
| CHAPTER V: DISCUSSION AND CONCLUSIONS..... | 120 |
| Theoretical Relationships..... | 120 |
| Relationship to Previous Literature..... | 122 |
| Implications for College Women’s Wellness Programs..... | 123 |
| Recommendations for Further Research..... | 125 |
| | |
| REFERENCES..... | 130 |
| | |
| APPENDICES..... | 143 |
| Appendix A: Focus Groups Questions Protocol..... | 144 |
| Appendix B: In-depth Interview Questions..... | 147 |
| Appendix C: IRB Approvals..... | 149 |

LIST OF FIGURES/TABLES

| | |
|--|----|
| Figure 1: Participant Physical Activity by Semester..... | 16 |
| Table 1: WPC Lesson Plans Learning Concepts..... | 51 |
| Table 2: Semester, Year and Ratio of WPC In-depth Interview Respondents..... | 75 |

CHAPTER I: INTRODUCTION

“Overweight mothers will fuel the epidemic of chronic disease in the next generation.”
(Barker, 2008, p.95)

Starting in childhood females consistently spend less time taking part in physical activity than their male peers and this trend continues into high school and college. Many of the major life and social role changes that occur during the transition from adolescence to young adulthood are experienced differently by males and females. In combination with the aforementioned greater levels of physical inactivity displayed by many females these social phenomena give merit to a research approach that studies the behavior of women separately (Han, Dinger, Hull, Randall, Heesch & Fields, 2008). Additionally, college women are at greater risk for excessive weight gain as they enter the college environment as research has shown that some have gained up to 20 pounds per year. This is a much higher rate than their community-dwelling peers of the same age (Ferrara, 2009).

In addition to the above factors affecting college women the author had personal experiences as a practitioner that led to seeking an innovative approach to health promotion for the college female demographic. The author began teaching Personal Fitness in 2007 and it was renamed Personal Conditioning in 2008. From 2008 until 2012 the Personal Conditioning classes were co-ed. The author observed that there seemed to be a mismatch in interests, motivations and goals between the males and females in the class. The men seemed to be more interested in performance abilities as in how much

weight they could lift to achieve larger muscles and gain weight and the women seemed to be interested in losing weight and toning while avoiding hypertrophied, bulky musculature. This would echo the research that showed that as college men gained weight throughout their college years their attitudes toward eating and their well-being were not affected negatively. As college women's weight rose however, their eating attitudes were affected negatively as well as having their level of body dissatisfaction rise (Girz, 2013). It was difficult to create full class activities that would accommodate both diverging interests. For example, it was very difficult logistically to carry out combination anaerobic/aerobic workouts such as circuit training because of the need to take time to change weights owing to the usual great difference in appropriate weights between males and females. Much of the aerobic effect was lost because of the delays. Also there were times when some of the males would carry out flirtatious activities that were not responded to positively by the females. The author had read Women's Fitness Program Development (2002) by Ann Cowlin. The book highlighted research as to the need for and the benefits of creating female-centered physical education environments. The author also knew that this type of class would align with the tenets of Social Identity Theory and Social Cognitive Theory. Thus, a new class called Women's Personal Conditioning was proposed and approved in 2012.

Research was started immediately with focus groups being conducted at the end of each semester. Then in 2014 in-depth interviews were carried out to bring a longitudinal element to the study. This qualitative type approach was taken in order to ascertain the meanings that the young women were making in their lived experience of Women's Personal Conditioning (WPC). Qualitative methodology was chosen because it can

render a complex and detailed understanding of a situation that can sometimes only be gained by talking face-to-face with the people involved (Creswell, 2007)

A number of other factors combined to focus this strategic initiative on college women. In addition to the drop in physical activity for females, research in the United States concerning metabolic imprinting of obesity has emerged. Metabolic imprinting postulates the establishment of set points for physiological and metabolic responses in the fetus that are then experienced in adulthood. These are created during pregnancy in relationship to the mother's state of health during gestation. Maternal health may be established largely during a female's preconception years, (Barker, 2008) and nutritional habits during pregnancy and breast feeding have long-term effects on systems that govern energy balance in the child as it matures. The combination of these factors can predispose future generations to obesity (by programming body weight set points) and metabolic disorders into people throughout their lifespans (Sullivan & Grove, 2010).

With the average age of giving birth for young women for the first time at 25.1 (CDC, 2002) the importance of working with the college-age population (18-25 yrs.) can be readily ascertained. Seeing that up until age 18 females can put on fat in preparation for growth spurts, childbirth etc. (Bird, 2006) the motivation for health promotion in the college-age demographic becomes more and more imperative. Adding in to this is research that shows that female's physical activity levels drop the most in the summer after their high school graduation and continue their decline through their first semester of college (Han, Dinger, Hull, Randall, Heesch & Fields, 2008). It becomes clear then that this is an opportune time for an intervention that may have multi-generational benefits.

In addition to the above health concerns and opportunities a pragmatically important element for college women in their success as a student is their retention rates. Research shows that the ability of a young woman to develop a sense of belonging within the college environment is a crucial factor in retention. Creating a caring, mutually supportive and welcoming environment within the higher education community is pivotal in engendering a sense of belonging (O'Keefe, 2013). This is also important to the colleges as well with federal funding being related to retention and graduation rates.

The organization of this document will be as follows. The literature review will discuss the importance of the college female demographic to the health future of the United States it will describe the theoretical underpinnings for the creation of the Women's Personal Conditioning class. Further it will outline the opportune brain development stage that the college women are going through. The research on metabolic imprinting of obesity will be examined; Adolescent female physical activity patterns, barrister and outcomes will be outlined. The significantly higher effect of stress on college women will be documented. Innovative curricular models to address the needs and opportunities available at this crucial juncture with this crucial cohort will be examined. Important elements within those wellness curricular models such as the impact of group cohesion and eudaimonic as opposed to hedonic wellness factors will be examined. The influence of sororities and coed wellness programs will be examined as well as targeted physical activity and nutrition-based women's wellness interventions. An overall view of college women's student success and retention factors will be shared. Finally, young adult women's physical activity patterns after college, the state of physical education in 4-year universities and evidence of single-gender preferences by females in

physical activity settings both at younger ages and older ages than college will be outlined. These areas of research will be documented because of their impact on the focus of this study which is examining the possible need for and the benefits of a holistic college women's wellness curricular choice.

It was realized by other colleagues and the author that this college age emerging adult segment of time presented a unique opportunity for effective personal development in young women's lives. There seemed to be limitations within the existing personal conditioning class in this area. So a new option, Women's Personal Conditioning (WPC) was created. This new class would have much greater age-specific and gender-specific holistic content. After the class was created and underway the author as a reflective practitioner carried out an Action Research Project by implementing focus group interviews at the conclusion of each semester on the effects of WPC on the participants. This became Study 1 which is the contents of Chapter IV. As the results from these exit focus groups became clearer and the results clearly positive, a second study was undertaken to try to understand whether the themes that emerged from the focus groups at the end of the term remained empirically accurate. Also, there was the question of whether the themes/behavioral effects of the class remained true longitudinally over time? Study 2, which employed in-depth interviews of students from the beginning of the class up until the ones who had just completed it sought to answer those questions. The object was to see what kind of a customized overall educational experience could be created to have the maximal positive impact on the entire well-being of these young women's lives and those of their progeny.

“Maternal weight and metabolic status is closely associated with the growth and development of the fetus. Thus diet and physical activity become particularly important aspects of the health of young women.”

(Henriksen et al., 2005, p.1)

Research Problem

The purpose of this study is to understand the meaning making related to and the behavioral effects of a college women’s wellness program at a large coeducational university. It is a practical and pragmatic health behavior change initiative set in its naturalistic context and it will be studied within its bounded case via multiple sources of data collection (Creswell, 2007). There is no other similar program known to exist on any large coeducational university campus in the United States.

Significance of Study

The college women’s demographic is crucial for future preventive health care in the United States. Beginning in childhood females consistently spend less time in physical activity than males throughout their lifetimes. The greatest drop takes place beginning during the summer after high school graduation and continues into the first semester of college (Han, Dinger, Hull, Randall, Heesch & Fields, 2008). College women are at greater risk for excessive weight gain than their same age peers who do not attend college (Ferrara, 2009). Metabolic imprinting is a process whereby lifetime physiological and metabolic set points may be transmitted to a fetus in utero. This can be a predisposing factor to obesity and other disease potentials as the child is born and matures through their lifetime (Sullivan & Grove, 2010). The conditions for maternal health may be established by fitness/nutrition habits established or not established primarily during a female’s adolescence and young adult years prior to conception.

During pregnancy her bones, muscles and fat literally turn over intermittently and are made available to the fetus for bodily construction. The quality and health of the mother's body influences strongly the quality and health of the growing fetus and subsequent child. There are crucial windows of opportunity for development of both the body and organs. If maternal conditions are unhealthy because of obesity, poor nutrition or inactivity flaws can be built into the prospective person that, combined with unhealthy environmental and lifestyle factors, can have devastating health consequences in the form of heart attacks, strokes etc. decades later (Barker, 2008).

In the United States the average age for a young woman to give birth to her first child is 26 as of 2013 (Martin, Hamilton, Osterman, Curtain & Matthews, 2015). The college-age population is 18-25 years old. Research has shown that females can build up body fat before age 18 simply to prepare for growth spurts, (Bird, 2006). Relatedly, adolescent female dysmorphic body image issues make the pre 18 year old time period somewhat problematic for interventions. Also the frontal cortex of a college woman's brain is going through a growth spurt and the final wiring in this area of the brain that controls discipline, executive decision making, judgment and willpower. Lifestyle educational influences experienced during this period will be very impactful on adult habit patterns (Blakemore & Choudbury, 2006; Jay, 2012). These physiological situations in confluence with the fact that the freshman year of college is the critical time for general engagement to take place in order to promote retention (Tinto, 1993; Upcraft, Gardner & Associates, 1989) creates a very special beneficent opportunity. Clearly, this is an optimal and opportune space of time to carry out a pivotal intervention with this

pivotal demographic especially early in their college careers. It can be positively impactful over multiple generations.

“Future research efforts should focus on the development of effective strategies to improve group cohesion in organized physical activity classes or group exercise programs in order to enhance students’ positive motivation in physical activity”.

(Gu, Solmon, Zhang, Xiang, 2011, p.186)

CHAPTER II: LITERATURE REVIEW

Introduction

The review chapter of this dissertation covers four broad themes. To begin with the strategic expediency of this demographic for healthy change will be explored and illuminated. To create a programmatic change that is efficient it is imperative to comprehend the requirement for different pedagogical models and the potential positively influential part that sororities may play. The holistic view of success for college women will then be outlined. This practical and whole-life enhancing success is shown in the literature to be related to establishing positive health behaviors, academic success and retention. Finally, potential long term societal repercussions will be explored.

Understanding the Primacy of This Demographic for Healthy Change. The deleterious effects of inadequate physical activity, poor nutrition habits and even lack of social support have been well-documented for American society in general. Their equally well researched relationship to the obesity crisis in the United States is prevalent in the literature. What is much less well documented and known is the key role of the preconception women's demographic in this societal scenario. Only recently has the impact of this crucial cohort for the health future of the U.S. started to be understood. This chapter will examine the comprehensive research regarding the present state of young females potential for positive lifestyle change, the importance of that change both to themselves and future generations and their physical activity patterns, barriers and resulting physiological outcomes. Additionally, the relatively greater burden of stress on college women will be documented. This imperative necessitates seeking creative new

educational and behavioral influence approaches that will be successful in meeting these challenges. The next section explores some possibilities.

The Need for New Pedagogies and the Potential of Sorority Influence.

Innovative women's wellness models and the biopsychosocial factors that underlie the beneficial effects of these new approaches such as group cohesion and hedonic versus eudaimonic motivation will be investigated too. Additionally, the impact of the sorority experience and the history of wellness initiatives for sorority women will be explored. The general history of targeted physical activity and nutrition based interventions will also be included. The important related practical issue of completion of degree and the present situation of female's physical education/physical activity patterns outside the college years will next be considered to derive contextual social science meanings.

Student Success and the Lifetime Picture of Female P/A and PE. College women's student success and retention factors research will be outlined as well as young women's physical activity patterns after college graduation. To complete this picture of the wellness situation for the young American female the state of U.S. physical education in 4-year universities will be documented. This present state in higher education PE for women will be compared to the school-age-program and Curves preferences that surround in time the college experience for young females. The impact of improving the systemic-related intrinsic motivation for college women to develop positive feelings and relationships with consistent physical activity and wholesome nutrition will be summarized.

Importance to the American Future. This is important because increasing the number of young women who adhere to greater levels of physical activity and more

wholesome nutrition patterns will have a lifelong positive effect on their health outcomes. As the research is unfolding it is becoming more and more apparent that this not only affects their well-being but that of their children and children's children too. What has worked for past generations appears to only be marginally effective in the present generation with their low levels of physical activity and poor eating habits. The research presents challenges and opportunities that have not been seen before. Realizing that young females are at the heart of preventive medicine may turn the tide in the health care battle of the future. This is why it is of utmost importance to find innovative new physical education-based physical activity/nutrition interventions that will most effectively resonate with them and thus prevent needless profound future costs, both human and financial.

Theoretical Underpinning

An applicable classic theoretical paradigm in which to frame this research is Social Cognitive Theory (SCT) which was originated by Albert Bandura (1986). SCT posits that learning takes place in a social context and therefore a great deal of what is learned is brought about by observation (Denler, Wolters, & Benzon, 2012). Further, someone's day-to-day experience is a continuous interaction between mental, behavioral and environmental factors. Another tenet of SCT is that people have the power to influence self-behavior and their life context in a goal-oriented way. Another core assumption of SCT is that learning can take place and not be registered immediately as a behavior change, which means behavior change may take place over time (Denler, Wolters, & Benzon, 2012).

A specific concept within SCT that is important is that people learn by seeing behaviors being modeled and then observing the consequences. Observational learning depends on four related processes that include attention, retention, production, and motivation. Another important element of SCT is outcome expectations which show people's beliefs about what consequences will occur if particular behaviors are performed. These combine with perceived self-efficacy, which entails individual's beliefs in whether they are capable of achieving success on a given task and goal setting which illustrates the ability of people to envision outcomes that they desire and create plans of action to get them there. Finally, there is the element of self-regulation in which students can learn to manage and control their own thoughts, behaviors, and life outcomes (Denler, Wolters, & Benzon, 2012).

Optimal Brain Development Stage

A component of the situation that is not well known is the optimal brain development stage college women are in to learn and incorporate new healthier-lifestyles for their adulthood. Research shows that their frontal cortex is going through a growth spurt of neurons that will provide the capacity for final wiring for this area that is pivotal in executive decision making, discipline, good judgment and will power. The educational influences that are encountered during this critical period will have long ranging effects on young women's habit patterns (Blakemore & Choudbury, 2006; Jay, 2012).

The area of student success and retention is of practical importance to both college women and the institutions to which they matriculate. Recent research is showing that students who can develop a sense of belonging as they enter the college environment greatly enhance their chances of retention and graduation. The establishment of a caring,

universally supportive and welcoming culture within the college milieu has been shown to be crucial to students developing a sense of belonging (O'Keefe, 2013). With federal funding recently becoming aligned with retention rates this has become an area of focus for improvement on many campuses.

Metabolic Imprinting of Obesity

It should be acknowledged that David Barker in the United Kingdom was the originator of the research heralding the founding of a new branch of medicine called the Developmental Origins of Health and Disease. His research in this area began in the early 1980s (Pincock, 2013) and has been impactful around the world. Much of the future health of a fetus is determined by the health of the prospective mother as she matures through adolescence and young adulthood toward conception (Barker, 2008). The ensuing related phenomenon known as metabolic imprinting of obesity was first investigated in the United States at Harvard in 2006. According to Matthew Gillman the results of the study showed that efforts to circumvent obesity should begin even previous to birth. In another study it was shown that pregnant women who have high blood sugar give birth to babies who have a greater likelihood of being overweight or obese. Tavaras (2010) reaffirmed the original study. Excessive maternal weight before and during pregnancy can result in babies born with excessive size (Retnakaran, 2012). There is a link between pre-pregnancy body mass index (BMI) in mothers and the incidence of their off spring's prevalence of obesity (Laitinen, 2012).

This mounting body of evidence led the National Institute of Health (NIH) to publish on metabolic imprinting of obesity (Sullivan & Grove, 2010). It stated that early metabolic programming leads to rising obesity rates in children and adults. Metabolic

imprinting is part of the physiological mechanism that creates physiologic and metabolic responses in children all of the way into adult life. Evidence has been derived from both epidemiological and animal studies that show that a mother's health and nutritional condition both while pregnant and during breast feeding have extended effects on the central and peripheral systems that control energy balance in the developing child (Sullivan & Grove, 2010). Finally, Symonds, et al. (2013) concluded that a much neglected aspect of the obesity crisis is that it has resulted in a greater number of overweight/obese females before and during pregnancy. It went on to say that children of these women also tend to have higher birth weights and more adipose tissue, and carry an increased chance of obesity and chronic diseases throughout life (Symonds, et al., 2013). At the other end of the birth weight spectrum it was shown recently that women who eat junk food and sugary snacks prior to conception are 50 per cent more likely to have a preterm baby. Females who ate protein-rich foods such as fish, lean meats, chicken, whole grains and vegetables prior to conception had significantly less chance of delivery a preterm baby. (Grieger, Grzeskowiak, & Clifton, 2014).

The average age of giving birth for the first time in the United States is approximately 25.0 years (Centers for Disease Control, 2009). In view of the fact that females can put on body fat in preparation for growth spurts and reproduction up until age 18 (Bird, 2006) the college-age time frame (18-25 years) becomes a critical juncture for prevention of metabolic imprinting of obesity. The activity patterns that are displayed by young women are developed partially by how they receive high school PE experiences. The portrait of the physical education influences and physical activity habits created pre-college may have bearing on their present activity rates.

Adolescent Females Physical Activity Patterns

By the time girls reach college-age they have a history of lessening levels of physical activity (P/A). The greatest decline takes place during the transition from the late teen years to young adulthood. Only 27% of 9th graders do not meet recommended P/A levels while 56%-80% of university students don't take part in physical activity (Han, Dinger, Hull, Randall, Heesch & Field, 2008). In the case of females the specific segment of time that the biggest drop in P/A occurs takes place during the summer after they graduate from high school and continues to decline through their first semester in college. The lifestyle that these new collegians encounter may hold part of the reason behind the slide in P/A. Many of them begin working, usually at part time jobs at the same time as being enrolled in full academic loads. Additionally, one of their highest priorities is their active social lives. Often times their schedules become further disrupted because of changes in interpersonal relationships as well as acquiring new living quarters. All of this takes place at the same time they must make the adjustment to college level academics. This can relegate P/A to a very low priority for them (Han, Dinger, Hull, Randall, Heesch & Fields, 2008). Figure 1 below clearly illustrates the drastic decline in physical activity for females between their second semester of high school and their second semester of college. This makes clear a point of focus for effective interventions.

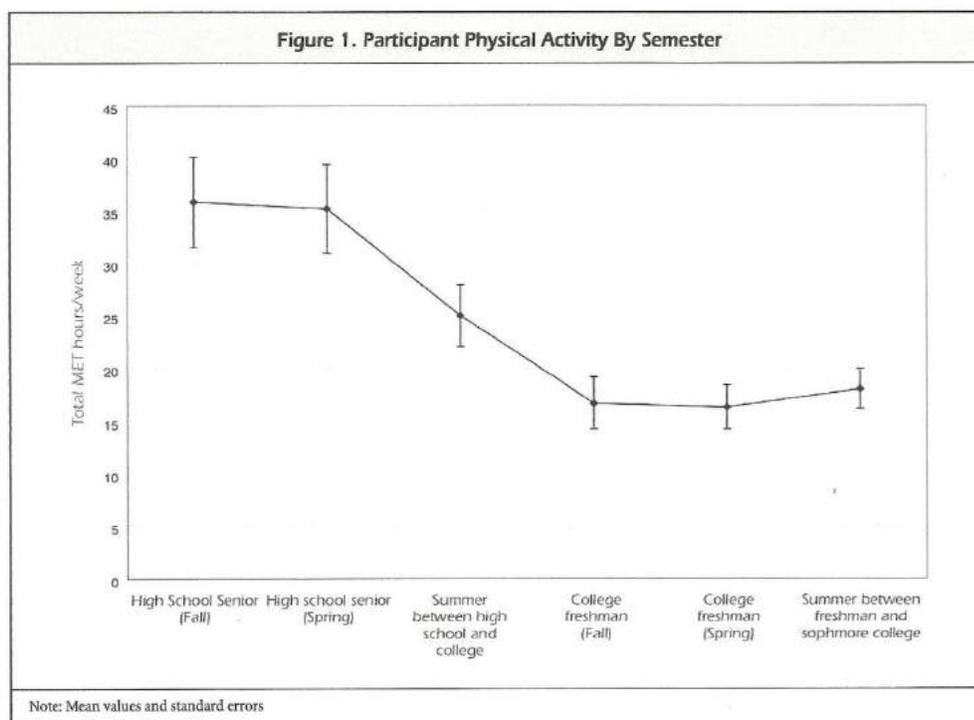


Figure 1. Participant Physical Activity by Semester (Han, Dinger, Hull, Randall, Heesch & Fields (2008).

Adolescent Female Physical Activity Barriers and Outcomes

The other factor that plays into this scenario is that beginning as early as childhood females comparatively spend consistently less time than males in P/A and this trend continues through college (Han, Dinger, Hull, Randal, Heesch & Fields, 2008). Some of the barriers that lead to the drop in P/A for girls during their school years may include obsolete locker room architecture, “gang” style showers, less time between classes (Couturier, Chepko & Coughlin, 2007). Other important variables for young females include wanting to do other things with their time and a lack of desire and interest

(Couturier, Chepko & Coughlin, 2007). High school girls worked harder and believed teachers expected more out of them in single gender classes. Only 51.8% of girls agreed that they preferred competitive team sports while 81.5% of boys said they did. Just 56.2% of girls said they liked to win while 70.3% of the boys said winning was important. Young women were 9% more likely to opt for cooperative rather than competitive activities. Females were 10% more likely to prefer fitness type activities in a course. Lastly girls showed an 11% greater chance of saying that they take part in physical education because they have to (Couturier, Chepko & Coughlin, 2007). Taking these attitudes into their university lives where physical activity is less and less required as part of the curriculum, it has been shown that college women are at greater risk for adding excess weight. Some have been shown to gain as much as 20 pounds per year. This is much higher than their community-dwelling peers of the same age (Ferrara, 2009). Also, it is more damaging psychologically to college women than it is to college men to gain weight. As college women gain weight their eating attitudes deteriorate and their level of body dissatisfaction increases. Weight gain is associated with more thought fixation with weight and negative nutrition attitudes for women, but not for men. (Girz, 2013).

The Role of Stress and Other Challenges to Well-being for College Females

Maria Pascucci created a website that promotes the calming and stress reduction of college women (<http://www.campuscalm.com/>). On it she listed the following facts.

Around 89 percent of women college students revealed that they had felt overwhelmed by their task load in the previous years. This was 15 percent higher than for college males (Spring 2013 National College Health Assessment). Stress, raised anxiety and insomnia are the largest life issues that U.S. college students report affecting their studies

(American College Health Associations Spring 2013 National College Health Assessment).

Around 48 percent of college females said they felt hopeless in the previous year which was 9% higher than men. Approximately 57% of women college students revealed feeling very high anxiety which was 17% higher than university men. As high as 89 percent of university women reported that they felt exhausted although not from physical activity which was 14% higher than for university men. Approximately 28 percent of university women and 24 percent of university men rated insomnia as traumatic or very hard to handle in the previous year (Spring 2013 National College Health Assessment).

First-year women college students were much less likely to reveal higher levels of emotional health than their male counterparts. The men were more likely to be emotionally healthy by rates of over 13%. Even during their final year of high school women were over twice as likely to say that they felt often overwhelmed by all they had to accomplish (The American Freshman National Norms, Fall 2010; Campus Calm Website, 2014).

Innovative Women's Wellness Curriculum Models and Rationale

This evidence aligns with those who argue that most traditional physical education classes are not designed to take into account the values and preferences of many young females (Cowlin, 2002). Ann Cowlin of Yale University is one of the proponents of a new approach to physical education (PE) that would be female-centered. She posits that when Title IX was enacted it merely opened a pathway for young women to take part in a male-centered physical education world that was based on a competitive model derived from the history of physical education as a preparation of males for war. The new

approach to PE would create a female-oriented curriculum model that is aimed at meeting the needs of the whole woman and one that would highlight the value of community as opposed to interpersonal competition. Ms. Cowlin also advocated for moving away from the standard approach to assessment to a model where women would verbally come to a consensus about how and what they had learned.

She went on to argue that women should be viewed as a whole population and not just the ones who are currently active in the sport and fitness world. Ms. Cowlin asserted that in so doing we may be able to design models that are more meaningful to women in general and may benefit many more women than are currently participating (Cowlin, 2002). Her assertion about there being a division in women's physical activity preferences and habits is borne out by research. Cook, Crewther & Smith (2012) found that elite female athletes from a variety of sports had had testosterone levels that were consistently more than two times as high as those of nonelites. Also, Cook and Beaven (2013) showed that female athletes with greater testosterone levels self-selected more difficult strength training workouts than their lower-testosterone classmates (Epstein, 2013). Additionally, the research is showing that there are major changes in athletic ability between females and males as they mature. Until age ten boys and girls have similar abilities (Epstein, 2013; Gooren, 2008; Thomas & French, 1985). Their running speed for instance is nearly identical. By age 14 after beginning puberty there is a wide gap in performance ability between girls and boys. In the 400-meter dash the record for nine-year-old boys is 1:00.87 and for girls is 1:00.56. For fourteen-year-old boys it is 46.96 seconds and for girls it is 52.68 (Epstein, 2013; Malina, Bouchard & Oded, 2003). After middle school age there appears to be a physiological basis for separation of males

and females in sports competition and possibly in physical education settings if preferred by the females.

The reasons Cowlin's ideas and those of other progressive educators have not taken hold since the implementation of Title IX in 1972 are probably many. It was found during the 1990s that Physical Education Teachers Education (PETE) majors possessed narrow ideas of PE and teaching generally (Hutchinson, 1993). They did not think planning instruction was necessary, had superficial ideas about curriculum and deemed participation to be equivalent to learning. These future PE teachers wanted to replicate their personal PE experience and their PE experience consisted mostly of traditional sports and games (Dodds et. al., 1992).

McCullick, Lux, Belcher and Davies (2011) found that 45.5% of 21st century PETE majors had parents who were teachers or coaches. This could be a partial explanation as to the conservative tendencies in PE programming we still see today. They also found them to have an intense commitment to paternal altruism which connotes a male paradigm approach unilaterally changing, impacting, shaping etc. as opposed to maternal altruism which would be more cooperatively imbued with actions like guiding, nurturing and caring for their wellness development.

Other mediating elements may be that they have been shown to be uncritical on social issues (Macdonald et al. 2002). They have also been labeled as pragmatic skeptics as well as being anti-intellectual (Tinning, 2004). McCullick, Lux, Belcher and Davies (2011) stated that the uncritical PETE students will face difficult challenges in effectively processing and being reflective about their development as teachers and delivering a curriculum that differs from their biography.

Additionally, they found that because they own a vocational aptitude when hired, PETE students are very likely to take on a custodial orientation in which they uphold the status quo of the work conditions they encounter rather than altering the program (Stroot & Ko, 2006). They also showed that those who choose teaching careers most likely do so because they have been successful sport athletes and adept physical movers (Curtner-Smith, 1996). In the case of the preponderance of female PE teachers this may connect to the previously cited differences between women who are currently active in the sport and fitness world and the majority of females who are not and the resulting predominant curriculum offerings.

In another study of motivating adolescent females in physical education Daugherty (2008) found that many adolescent girls need to be motivated to participate in PE. Adolescent females see many barriers to active participation in PE and physical education staff would be benefitted from updated motivational research and theory. Four specific factors were found to be of importance in the motivation of adolescent females to engage actively in PE. They were taking part in same sex-classes, rapport and feeling a personal connection between themselves and their teacher, the opportunity to make choices regarding their activities and alternative grading systems (Daugherty, 2008).

Bender, Escobedo, Gormley, Nolan, Pacheco and Rogers (2007) found that attitudes towards PE varied significantly between students from single-sex and coeducational schools. A large number of physical education teachers are beginning to notice differences in coed and single gender classes. Some of these educators believe that a single gender environment would facilitate a greater amount of student participation and increased opportunity for skill development. It is possible that single-sex classes are

best for student knowledge and skill acquirement. The establishment of Title IX policies and procedures may not have been the optimal course for many students (Bender, Escobedo, Gormley, Nolan, Pacheco & Rogers, 2007). These pieces of research seemed to corroborate the research and philosophy of Cowlin.

Impact of Group Cohesion in Physical Activity Classes

More recent research has continued to corroborate Cowlin's assertions. A study on the effect of group cohesion, motivation and achievement outcomes (Gu, Solmon, Zhang & Xiang, 2011) found that teachers and coaches should create class activities that are at a reasonable level of difficulty so that young women can gain a sense of success that can foster positive perceptions of their ability which can lead to greater adherence. Also they found the importance of practitioners making learning activities interesting and fun, relating them to their personal lives and emphasizing their importance to their future wellness.

Furthermore the study supported the assertion that group cohesion could be foundational to more positive motivational outcomes and was a crucial element in developing a supportive and desirable class environment that enhances students' motivation to participate in physical activity classes or group exercise programs. They concluded that their findings suggest that physical educators should maximize the opportunities to develop higher perceptions of group integration-task and promote the importance, interest and viability of physical activity classes for women college students (Gu, Solmon, Zhang & Xiang, 2011).

In possible neurochemical support of the above study it was found that oxytocin acts as a social reinforcement in the nucleus accumbens in the brain. In addition

oxytocin-generated synaptic plasticity requires stimulation of serotonin receptors for social reward. In other words, raising serotonin and oxytocin levels in the brain together promote a feeling of social reward in mice (Dolen, Darvishzadeh, Huang & Malenka, 2013). It may be that this same type of coordinated serotonin and oxytocin stimulation may have similar effects on social reward and the promotion of positive, cohesive group behavior.

The efficaciousness of group cohesion in general venues was echoed in social identity theory research. This is an emerging theoretical paradigm that also has relevance. Groups shape our thinking through their ability to become internalized and help create our sense of self. This is termed social identity (Haslam, Jetten, Postmes & Haslam, 2009). We don't see the groups (family, friends, sports teams etc.) in our lives as others, we see them as us. Psychologically the groups that we engage with help define who we are. These groups have the ability to enhance our lives such as being a source of personal security, social support, emotional bonding, intellectual challenge and collaborative learning. They can allow us to attain goals and kinds of agency that otherwise might be nearly impossible for us. Groups that create within us a sense of place, purpose and belonging have the tendency to benefit us psychologically. They can make us feel unique and special, effective and successful. They can enhance our self-concept and sense of worth. These effects can have protective properties when well-being is being threatened and can also help people cope with being a part of a marginalized group. This may be one of the preeminent factors of the health of individuals. Social identities and the concept of us-ness that they create may be central in themselves to health and well-being and the

promotion of motivation for health enhancing physical activities. (Haslam, Jetten, Postmes & Haslam, 2009).

Previous research has shown that identity-related processes underlie many people's involvement in health-promoting activities. Laverie (1998) showed that participant's willingness to take part in aerobics classes was linked with the development, through social interaction, of a social identity and its accompanying positive emotions. This became part of their identity as a member of that particular aerobics class (Haslam, Jetten, Postmes, & Haslam, 2009).

Also, in the important area of social support it has been found it is more likely to be given, accepted and received in the way it was intended to the extent that those who are in the position of providing and receiving the support see themselves sharing a sense of social identity (Haslam, Jetten, Postmes & Haslam, 2009).

In summary, social identities and the psychological communities they foster constitute much of what we live for and what we live by. For this reason they are a fundamental part of our lives and pivotal to our wellness. This phenomenon has to be accounted for when designing promotions for health and well-being (Haslam, Jetten, Postmes & Haslam, 2009). Ottesen and Krustup (2013) of the University of Copenhagen found that social identity was a strong factor with women runners and soccer players.

Recreational soccer for females is an activity that promotes social interactions, the accrument of social capital and the promotion of networking. The study found that the soccer players were motivated by the game to a high degree but also by having fun and being together in the group. The soccer players were more successful at being adherent after the intervention. They founded a club after the intervention and are still playing

together as a team. Only a few runners have kept up their training. They mentioned having someone to workout with as an important factor in staying committed to the activity. They also reported that their soccer participation has affected their relations with family and friends and their ability to reach out and create new acquaintance's (Ottesen & Krustup, 2013).

Hedonic Versus Eudaimonic Wellness Factors

The previously cited women's soccer study seemed to have benefits that went beyond the physical and into the psychological and other areas of well-being. This type of well-being and positive psychological effect has been divided up into two kinds. One kind hedonic well-being is that which registers subjective mood states and pleasure (Ryan & Deci, 2001) and is usually quantified by life satisfaction and positive or negative feelings (Diener, Suh, Lucas & Smith, 1999; Ryff, 1989; Ferguson, Kowalski, Mack, Wilson & Crocker, 2012)).

An alternative understanding of a way to view positive psychological well-being is eudemonic well-being. Eudaimonia as defined by Aristotle is attaining living the good life by realizing ones daimon or ultimate potential (Ferguson, Kowalski, Mack, Wilson & Crocker, 2012; Ryff, 1989) Eudaimonia then takes place when people pursue their excellences and live in congruence with their daimon (Ryan & Deci, 2001). Hedonia generally reflects temporary affective states while eudaimonia can be both temporary (state-like) and more permanent and stable (trait-like) (Schmutte & Ryff, 1997). Eudaimonic well-being does fluctuate in response to life circumstances but it has more enduring qualities and is not as fleeting as emotional affective states can be (Schmutte &

Ryff, 1997). Eudaimonia can be characterized more as a personality characteristic (Schmutte & Ryff, 1997).

Eudaimonia entails six aspects of positive psychological functioning: self-directedness, control of external circumstances, personal growth, positive relationships, having purpose and life goals and self-acceptance (Ferguson, Kowalski, Mack, Wilson & Crocker, 2012) Eudaimonia creates a sense that one's actions and experiences are important personally and are of value and impact to oneself and others. (Huta & Ryan, 2010). Hedonia corresponds more with immediate outcomes and diversion from daily concerns while eudaimonia relates more to long term outcomes in addition to becoming more engaged and creating connections that enhance social support (Huta & Ryan, 2010).

It has been proposed (Ryff & Singer, 2008) that being consistently engaged in health behaviors may promote eudaimonic well-being. What was found was that the level of health enhancing physical activity was not as important to eudaimonic well-being as the quality of the activity for college women. This seems to contradict physical activity organizations who stipulate programs based on frequency, duration and intensity. To promote eudaimonic well-being physical activity programs may need to provide opportunities for engagement in quality activities in which women experience elements of well-being (Ferguson, Kowalski, Mack, Wilson & Crocker, 2012).

Fredrickson and Cole (2013) found that different kinds of happiness cause human cells to respond in healthy and unhealthy ways. The sense of well-being that is gotten from a noble purpose in life may provide benefits at the molecular level while immediate self-gratification may have negative molecular effects. The difference between the two might be illustrated by the hedonic version being the effect of enjoying a good meal and

the eudaimonic being connected to a larger community through a service organization (Fredrickson & Cole, 2013).

Sorority Wellness Contributions and Challenges

One of the most influential service organizations in the college-age women's world are the Greek sororities. Each of them has a philanthropic mission and they spend considerable time and energy in the service of their individual chapter's mission. Sorority life may promote some of the elements of eudaimonic well-being. At the same time there is a question of whether Greek affiliation may affect health behavior adversely.

College students are known to take part in many behaviors that may put them at risk for a myriad of health challenges (Douglas et al., 1997; Hoban & Leine, 2006). Inordinate alcohol and other types of substance abuse, cigarette usage, risky intimacy behaviors and sedentary habits can jeopardize academic performance and acuity (Prendergast, 1994; Trokel, Barnes., & Egget. 2000; Wechsler, Davenport, Dowdall, Moeykens & Castillo, 1994). Health behaviors such as these can be related to injury and violence (Hingson et al., 2002, Turner & Shu, 2004), lower adult wages (Jennison, 2004), higher cardiovascular risk (Spencer, 2002), and sexually transmitted infections (STIs) (Lewis et al., 1997; Scott-Sheldon, Carey & Carey, 2008).

National surveys have shown that Greeks use of alcohol and substances is greater than non-Greeks (Cashin, Presley, & Meilman, 1998, McCabe, et al., 2005, Wechsler, Kuh, & Davenport, 1996). The study by Scott-Sheldon, Carey and Carey (2008) corroborated these findings with sorority women. They found that in comparison with non-Greek females sorority women engaged in heavy episodic drinking more frequently, were more apt to be frequent smokers, showed more lifetime marijuana use, more other

drug use in the past 30 days, more intimate partners in their lifetime, past year and recent 3 months.

Health behaviors that are instituted during late adolescence relate to patterns of health behavior when they became adults. Becoming aware of damaging health behaviors during the college years can be important in promoting long-term health (Nelson et al., 2006). Sorority women were not distinguishable from non-sorority women in this study on the areas of eating, caffeine use and physical activity. Only 20% of the overall sample said they were eating 3 meals per day but this was true for Greek and non-Greek alike. Also the overall sample reported that they worked out over 6 hours per week and 44% said that they exercised strenuously 3 or more times weekly during the past month. Taking part in exercise programs is many times used by college students to enhance their physical attractiveness (Reitman, 2006). In spite of not being motivated by health reasons these activities do provide practical benefits to students' health and happiness (Perelto & Dahn, 2005; Scott-Sheldon, Carey & Carey, 2008). It highlighted that the evidence for riskier behaviors in the areas of substance abuse and intimacy issues are sororities greatest risk challenges. They postulated that some of this may be due to pledges self-selecting into environments that they know would encourage risky behaviors like alcohol and drug use. On the other hand, they cited studies showing that Greek women can be socialized to engage in riskier types of behaviors by a permissive sorority environment (Cashin, et al., 1998; McCabe et al., 2005; Read et al., 2005). Longitudinal research shows that being in a sorority does not predict drinking patterns later in life (Sher et al., 2001). This kind of evidence strongly suggests that college women's risky behavior patterns are influenced by the environmental norms they are experiencing. It should be

noted that researchers have documented large variations among sorority houses in regards to risky alcohol and intimacy issues (Humphrey & Kahn, 2000; Larimer et al., 1997).

This study concludes that targeted interventions in the areas of alcohol and substance abuse along with intimacy issues should be undertaken with Greek women (Scott-Sheldon, Carey & Carey, 2008).

When it comes to alcohol specifically most sorority members in contrast to fraternity members are not experienced drinkers when they arrive at college. Around two-thirds of sorority members did not binge drink in high school. Of those who became binge drinkers in college only 38% were binge drinkers in high school compared to 60% of fraternity members who were also binge drinkers in high school. A large proportion of sorority members do become binge drinkers in college with 76% of the sorority house residents who had not binged in high school doing so in college. Despite these statistics however a small percentage, (14%), of sorority house residents did give up binge drinking in college (Wechsler, Kuh & Davenport, 2009).

This behavior caused its share of disruptions as 40 % or more of sorority women who lived in-house reported taking care of a drunken sister, being humiliated or insulted, being put through an unwanted sexual advance or being drawn into a serious argument or quarrel. No less than 96% of sorority house residents reported having experienced at least one of the eight possible binge secondary effects (the above plus “had your property damaged,” “had been hit pushed or assaulted” and “been a victim of sexual assault or rape”). Again, sorority women are put in the greatest amount of risk because they are least experienced when it comes to alcohol use but are among the most likely to engage in binge drinking once they are in college (Wechsler, Kuh & Davenport, 2009).

Sorority Wellness Initiatives

Ackerman (1990) found that at the national level an organized effort is needed to do something about this situation. This would entail something more than is being done right now with action presently being taken on one campus and one chapter at a time. The situation at many institutions is that sororities recruit members soon after students arrive on campus. These freshmen students are most vulnerable to the powerfully conforming influence of sororities. In some sororities the excessive use of alcohol during new member socialization is deeply embedded in the psyche of the group (Kuh & Arnold, 1993). In combination with other traditions the use of alcohol becomes intertwined with a complex set of rewards and sanctions which the newcomers learn to conform to during their early days of membership. This time period is ostensibly supposed to be alcohol free by the written rules in many organizations but the spirit of the rules may not be followed. This may allow these organizations to develop a custodial orientation in their new members and create pledges that are conformative and unusually cohesive, and learn loyalty to the group in resisting external threats which would include institutional sanctions (Wechsler, Kuh & Davenport, 2009). It should be noted here though that another more recent study found that 33% of sorority members were low quantity drinkers (Killos & Keller, 2012).

The recommendations from Wechsler, Kuh and Davenport (2009) was to try to modify the drinking behavior of sororities by deferring rush until at least the final month of the first year of college with any new member activity delayed until the second year. The Killos and Keller (2012) study pointed out that the low quantity sorority drinkers used significantly more of the following protective behavioral strategies when in drinking

situations. They included “alternate nonalcoholic with alcoholic beverages,” “determine to not exceed a set number of drinks,” “choose not to drink alcohol,” “use a designated driver,” “eat before you arrive,” “pace your drinks to 1 or fewer per hour,” “keep track of how many you are having,” “avoid drinking games” and “drink an alcohol look alike.” It pointed out that the low quantity drinkers experienced only a very small amount of negative consequences of their drinking. They recommended promoting social marketing messages that accentuated the positive highlighting sorority women who avoid negative consequences.

The negative consequences of excessive alcohol consumption are particularly acute in the areas of intimacy. Sorority women are one of the greatest at-risk groups for sexual assault on university campuses. They are also at-risk for interpersonal violence which includes crowd violence and mentally or physically coercive actions that sorority members perceive and experience on university campuses. The common thread for interpersonal violence within the sorority community is alcohol use (Wuthrich, 2009).

The sorority community uses harm reduction methods often in the form of small group interventions that are designed to explore the women’s assumptions about alcohols effects in a non-confrontational way while educating on blood alcohol levels, alcohol’s biphasic properties and self-monitoring strategies (Marlatt & Witkiewitz, 2002). Previous research has shown that interventions that try to change high-risk drinking should be focused on three areas: students as individuals, groups and organization levels (Danielson, Taylor & Hartford, 2006, Wuthrich, 2009).

The women who make up this cohort are from the Millennial generation. They have been described as having been raised in a sheltered environment; treated as special

by their parents and caregivers; having the tendency to exude confidence because of their protective raising; liking conventional behavior that is delineated by clear codes of conduct; team oriented; over achievers and under stress because of their desire to please (Howe & Strauss, 2003; Wuthrich, 2009). What this may mean for these women when they enter the sorority life is they may have problems coping with high levels of personal responsibility and have difficulty making sound decisions in this new social environment (Wuthrich, 2009).

The Wuthrich (2009) research suggested that deference to their peers, concern about their image, and honoring their interpersonal relationships were of utmost importance to their psychosocial balance. The Millennial requirement to be accepted, praised and valued leads many times to excessive alcohol consumption and is behind self-esteem boosting behaviors (CASA, 2007, Crocker & Park, 2000; Wuthrich, 2009). The article concluded that these Millennial sorority women need better coping mechanisms to lower potential harm in the social arenas where alcohol is in use. There should be further research into new conceptions of student development models so that student affairs practitioners can enhance their practices. International sorority leaders and health and wellness educators can create practical and effective interventions (Strange, 2004; Wuthrich, 2009).

For anyone interested in working with future leaders the sororities have a history of producing them. Since 1910, 85% of Supreme Court Justices have been fraternity or sorority members. Out of the 50 largest U.S. corporations 43 are led by fraternity or sorority members. Around 85% of key executives in Fortune 500 corporations are fraternity or sorority members (Fraternity & Sorority Statistics, 2013).

Wellness initiatives for Greek women have been scarce in the recent past. One example of a health and wellness-based program was instituted by Delta Sigma Theta Sorority. They made the point that as organization of mainly African-American women they are optimally positioned to enhance not only the wellness of their members but also the well-being of families and communities within their circle of influence. They created an initiative called Committing our Bodies to Physical and Mental Health. This addresses three parts: a program called “Lose to Win” employing Physical Activity and Healthy Eating, Physical Health (i.e. chronic diseases) and Mental Health. They created a theme Delta S.I.Z.E.D. which means Sorors, Invigorated, Zealous, Energized, and Determined for Physical Activity. They are now committed making physical activities part of all of their conventions, conferences and state meetings (Delta Sigma Theta website, 2014).

One other related program was the Reflections Body Image Program that was founded by Delta Delta Delta Sorority. It was the first evidence-based body image education and eating disorder prevention program that was peer-led (Becker, 2014).

Wellness Programs in College Settings

The setting of the college has been suggested to be an opportune one for wellness interventions. Research conducted recently shows that approximately 35% of college students in general are overweight or obese. It has been shown that the college years put many students at risk for weight gain. Degenerating eating habits and a lack of physical activity are contributing factors to the increased risk of weight gain and the incidence of young people already struggling with this phenomenon in this population. There have been few research studies that have investigated the viability of exercise, nutrition and weight loss programs that have been specially designed for the college student. These

studies need to take into consideration their schedule demands and nutrition and exercise preferences. University campuses can be an important setting where promotion of healthy lifestyle patterns can occur. It is recommended that there be future interventions that focus on healthy eating, and physical activity in the college population and how to help them maintain their habits after they graduate into their professional lives. The need is especially imperative for college women who have been shown to be at particular risk for weight gain in comparison to community-dwelling women of the same age. Some can gain as much-as 20lbs per year during this time period especially in the early part of the transition from high school to college (Howell, Randle & Fowler-Johnson, 1985; Levitsky, Halbmaier, & Mrdjenovic, 2004; Ferrara, 2009).

The years between 18 and 24 are a crucial time period in the lives of young women. As they go through this time they create physical activity and eating habits that are destined to affect their health status across the life span. In view of the fact that the development of major health problems has an insidious nature, young women's health status probably does not reflect the potential long-term results of negative health habits (Clement, Schmidt, Bermaix, Covington & Carr, 2004).

It has been acknowledged recently that preconception care is very important for reproductive-aged women. It has also been recognized that many young women continue to be under-informed and underserved in this area. In a study that was guided by the tenets of the Information-Motivation Behavioral Skills (IMB) model it was found that out of the sample of 203 college women most demonstrated low to moderate knowledge of issues related to preconception health, favorable attitudes regarding pregnancy prevention techniques and tendencies toward reproductive health risk behaviors in many lifestyle

areas. It was recommended that existing endeavors and interventions to promote young women's preconceptional health need to be extended and enlarged and new innovative approaches need to be created (Corbett, 2012).

An example of a college women's wellness program developed on a women's college campus is that of the Health Connection at Cedar Crest College. It was a program designed by the Student Affairs staff in conjunction with professors from the psychology and social work departments.

In 2003 the student affairs office examined closely their graduating students and began to realize that although Cedar Crest was providing their students on outstanding education within their chosen field of study it was not meeting their needs in empowering them with everything they would need to help them create healthier lives and avoid the challenges associated with unhealthy lifestyles. The CDC has estimated that 50% of the death rate in the U.S. can be linked to unhealthy lifestyles which make them preventable (Beland & Laffey, 2006; Mokdad, Marks, Stroup & Geberding, 2004).

Cedar Crest College identified health concerns for university students as substance abuse, dangerous sexual practices, injury and interpersonal violence, physical inactivity, disordered eating and mental health issues. They become committed to not only provide an excellent education for women but also provide them with the knowledge and tools to create a healthy life. In response to this commitment the Health Connection program were to be garnered through education experience and research. The educational part was composed of health and wellness courses, lectures and conferences. The experiential aspect was made up of weight training, aerobics, swimming yoga meditation and a program to develop healthy behaviors. The research element was a comprehensive

longitudinal investigation of students' health beliefs and practices (Baker, Boland & Laffey, 2006).

Targeted P/A and Nutrition-based Women's Wellness Interventions

The freshman year of college appears to be a critical juncture especially for physical activity interventions for women students in a study on change of diet physical activity and body weight (Butler, Black, Blue & Gretebeck, 2004) found that although total calories decreased in bodyweight. This was thought to be related to a significant drop in physical activity, raise the amounts of vegetables, fruits, breads, pasta and meat and lowers the alcohol consumption.

Jung, Bray and Ginis (2008) analyzed the stability of diet and physical activity and the combined impact on weight changes in freshman college women. Surprisingly consumption of calories decreased over the first year in all subjects. Some women lost weight and others gained weight. Those who gained weight had a significantly lower amount of physical activity than the ones who lost weight. It was determined that activity levels were the key to the weight loss in the freshmen women.

Research has suggested specifically that campuses should create meaningful opportunities to become involved in student organizations that are focused on wellness because a positive link has been found between psychosocial growth and involvement in such groups (Foubert & Grainger, 2006, Waldron & Dieser, 2010). This can have beneficial effects in other areas of young women's lives and benefit them holistically.

One of the elements in a physical activity intervention that is targeted at college women appears to be enhancement of self-efficacy. Hu, Motl, McAuley and Konopack, (2007) showed that efficacy encouragement had a significant positive impact on physical

activity enjoyment for college females especially at higher intensities. Positive reinforcement seems to be an important part of college women's overall experience with physical activity.

Some prevention efforts have been aimed at both eating disorder symptoms and excessive weight gain in college women. An intervention program called Healthy Weight was tested (Stice, Rohde, Shaw & Marti, 2012) and the results indicated that it helped reduce concurrently eating disorder symptoms and unhealthy weight gain. The authors called for further research to try to amplify the effect.

Finally there have been researchers who have investigated whether a course-based, peer education intervention could increase physical activity and physical fitness (Boyle, Matthews, Lassiter & Ritzler, 2011) in college students. They concluded that women who were classified as inactive at the beginning increased their physical activity as a result of the intervention. Controls did not experience an increase. Women who were classified as active in the beginning reduced their waist-hip-ratio and experienced an increase in flexibility. This intervention proved effective in raising the fitness of college women. The authors speculated on why the intervention was not effective for college men and concluded that it might be because it might not have been "sports-like" enough in nature, as many intervention men had requested this. They also thought that men's higher baseline activity levels may have made the men take the intervention lightly as not really applicable to them (Calfas, Sallis, Nichols, et.al. 2000). Their intervention incorporated a large amount of social support which has been shown to be very important for women (Keating, Guan, Pinero, & Bridges, 2005) so they thought their one-on-one

individually oriented program may have been better suited to college women than to college men.

Web-based Interventions. In a study that compared the efficacy of a web-mediated physical activity intervention with two control groups in the promotion of increasing the walking behavior of college women Ornes and Ransdell (2007) found that the intervention could increase walking by 38.8%. The study took place over a time period of 4 weeks and involved 112 college women. Pedometers were used to evaluate the number of steps taken per day. The intervention used the world-wide-web to deliver interactive lessons focused on improving behavioral capabilities. It also aimed to enhance reinforced of self-disciplined walking behavior. The researchers found that the steps per day continued to increase throughout the duration of the study (Ornes & Ransdell, 2007). This might be interpreted as evidence that the effectiveness of the combination of the daily prompts and use of pedometers may be increasingly habituating.

Read (2007) examined the effects of a 6 week long Walking Tips Intervention Emails campaign on the walking behavior of Euro-American, college-educated, middle-aged women with incomes over \$60,000. They assessed activity levels at baseline, immediately after the intervention and at one year post intervention for 475 women. They found that after the intervention there was a significant increase in weekly moderate intensity exercise. The percentage of subjects who walked 5 or more days also significantly increased as well as minutes of walking per day. A final effect was the percentage of study participants who reported exercising regularly for 6 months or more significantly increased (Reed, 2007). It appears that the email prompts used in this study

may have been effective in significantly changing women's moderate intensity physical activity behavior.

College Women's Student Success and Retention Factors

The area of student success and retention is of practical importance to both college women and the institutions to which they matriculate. Recent research is showing that students who can develop a sense of belonging as they enter the college environment greatly enhance their chances of retention and graduation. The establishment of a caring, universally supportive and welcoming culture within the college milieu has been shown to be crucial to students developing a sense of belonging (O'Keefe, 2013). With federal funding recently becoming aligned with retention rates this has become an area of focus for improvement on many campuses.

Research has shown (Starks, 1987) that student retention for college women is accentuated by academic and social integration. Formal and informal contact with professors and the view that both kinds of relationships were important to their academic growth was demonstrated to be beneficial. A positive contact with other students in the classroom or between classes was also shown to be instrumental. Women with the lowest retention were those who made fewer friends and resisted taking part in group activities in class that involved their peer groups or study groups outside class time (Starks, 1987).

Schnell and Doetkott (2003) the retention of 1853 students over the course of 4 years was shown to be significantly improved by being enrolled in a first-year seminar. Karlen (2004) demonstrated that there were needs for support mechanisms on an ongoing basis through the first year and continuing on into the second year of their academic programs. In four year colleges with 20% or more African-American enrollment the top

practice making the greatest contribution to retention was the establishment of a freshman seminar/university 101 for credit (ACT, 2010). Also, one of the most highly rated but least used retention factors were programs for other student sub-population in that demographic.

As mentioned earlier (O'Keefe, 2013) the ability of a student to develop a sense of belonging within the university setting was shown to be critical to retention and student success. The study advocated the creation of a caring, supportive and welcoming culture within the college in order to promote and facilitate this individual sense of belonging. They specifically recommended the building of positive relationships between students and faculty, having an effective counseling center and the celebration of diversity and differences between students (O'Keefe, 2013). In another very recent study (Windham, Reh fuss, Williams, Pugh & Tincher-Ladner, 2014) it was found that for first-year community college students completion of a study skills course increased student retention in the first year.

General Engagement. A recognized expert in the field of student retention Vincent Tinto began his work in 1975. In his most recent book (Tinto, 2012) he stated that arguably the most important condition for student retention was involvement, or more commonly now referred to as engagement. His research shows (Tinto, 1975, 1987, 1993) that the greater the amount of academic and social engagement that students have had on campus, especially with professors and other students (other things being equal), the greater chance they will have student success and ultimate graduation. The first year is critical as the involvement initiated here is the ground work upon which later staff and peer affiliations are constructed and academic and social groupings are created (Tinto,

1993; Uperaft, Gardner and Associates, 1989). All ethnic groups were included in this even in the presence of controls for background attributes (Greene, 2005; Kuh et al., 2007).

A study of four thousand students (Fischer, 2007) showed that with regard to engagement, those who had the most formal and informal connections with faculty staff and other students displayed higher satisfaction and greater levels of retention. The lack of such ties predicted a greater chance of attrition. Further studies showed that the impact of academic involvement stems primarily from classroom interactions and student-professor contact (Astin, 1984, 1993; Friedlander 1980; Ory & Braskamp, 1988, Parker & Schmidt, 1982, Pascarella & Terenzini, 1991). It was found that higher levels of engagement in learning activities in the classroom that are seen as meaningful and affirming lead to higher amounts of time and effort invested in studies which in turn benefits academic success and graduation rates (Barnett, 2011; Engstrom & Tinto, 2007, Kuh, Carins & Klein, 2004). Students who have greater interaction with professors both inside and outside the environment of the classroom have higher educational achievement (Endo & Harpel, & 1982; Pascarella & Terenzini, 1980; Reason, Terezini & Domingo, 2006, Terenzini & Pascarella, 1980) They can acquire through these interactions a greater sense of validation (Barnett, 2011). Social engagement and emotionally supportive environments also affect retention positively (Gloria, Kurpis, Hamilton & Wilson, 1999; Gloria & Kurpis 2001; Mallinckrodt, 1988).

Academic and Social Engagement. Academic and social engagement are somewhat separate concepts but they can overlap and be mutually influential (Tinto,

1997). There are certain types of pedagogies like cooperative group work has been seen to create social engagement that goes beyond class.

Academic and social involvements are most effective when they relate to students' values which will lead to a sense of academic and social membership that results in a sense of belonging (Schlossberg, 1989; Tucker, 1999; Harris, 2006; Hoffman, Richmond, Morrow & Salomone, 2003). Decisions on persistence in retention are influenced to some degree by the meaning students attribute to their involvement and how they perceive their involvement is valued and supported by the community they are interacting with (Attinnsi, 1989, Fries-Britt & Turner, 2001; Gonzales, 2002). Involvement in the classroom can be the key variable for many students especially in community colleges. For many of them if they aren't engaged in the classroom there is little chance it will happen at all (Donaldson, Graham, Martindill & Bradley, 2000; Tinto 1997). In this setting if classroom educational culture is seen as unsupportive, uncaring or uninvolving it is doubtful that students will be motivated to expend the effort level needed to reach success (Allen & Madden, 2001; Barnett, 2011, Giaquinto, 2010; Hoffman, Richmond, Morrow & Salomone, 2003). Faculty's teaching styles, classroom mannerisms and testing techniques serve as clues not only to faculty's out-of-class availability but it's desirability as well (Wilson, Wood & Gaff, 1974). Some professors and certain types of pedagogies seem to promote that kind of engagement while others don't (Allen & Madden, 2000).

Teaching Strategies. Two of the teaching strategies recommended are pedagogies of engagement and learning communities (Tinto, 2012). Pedagogies of engagement entail requiring participants to be actively engaged in their learning with other students in their

class (Barkley, 2000; Barkley, Cross & Major, 2005). The most common of these are cooperative learning and project-based learning. They have been shown to impact both academic and social engagement positively (Pascarella & Terenzini, 2005). Learning communities in their most basic format are a kind of registration procedure where the same group of students register for two or more courses and form a study team (Tinto, 2012). Learning communities have been demonstrated to be effective in enhancing student engagement, learning and retention throughout higher education (Engstrom & Tinto, 2007; Taylor, Moore, MacGregor & Lindblad, 2003; Tinto, 1999; Zhao & Kuh, 2004).

Especially traditional college-aged students like being involved with their peers. The challenge which higher education faces is to make use of this intrinsic inclination and find ways to actively involve students in learning activities that have meaning for them inside the classroom walls (Tinto, 2012).

Young Women's Physical Activity Patterns Post-College

In a study that was done on young women who had graduated from a private southern university between 1992 and 2002 (Soliah, Walter, & Antosh, 2008) found that weight and body size were major concerns for young professional females. The average participant in the study was normal weight but she desired to be thinner. The accepted solution to the weight control problem was seen as dieting. The average female in the study exercised 22 minutes a day. The overall range was 0-90 minutes per 24 hour cycle. Only 31% of the young women worked out for the recommended daily amount of 30 minutes or more per day. Only 17% of the participants engaged in daily exercise. It was recommended that future research investigate how to incorporate effective,

comprehensive, permanent physical activity in young women's daily routines (Soliah, Walter, Antosh, 2008).

The State of U.S. Physical Education in 4-Year Universities

Physical education requirements at 4-year universities are at an all-time low point (Cardinal, 2011) since they have been reported. In 1920 a high of 97% of university students were required to participate in physical education. It has fallen to just 39% of present day students being required to take part.

School-Age Program Preferences and the Curves Phenomenon

In a study (Bender, Escobedo, Gormley, Nolan, Pacheco & Rogers, 2007) done on middle school students they found that attitudes toward physical education varied significantly between students from single-gender and coeducational schools. Allowing students to choose workouts that are of interest to them will lead to better learning and success for the students. The authors concluded that at the middle school level single-sex physical education classes might be best for student learning. The advent of Title IX may not have been the best option for middle school students (Bender, Escobedo, Gormley, Nolan, Pacheco & Rogers, 2007).

On the other hand some studies (Fabes, Pahlke, Martin & Hannish, 2013) have raised concern that middle school girls and boys that are separated into different classes may increase gender stereotyping. Also, some studies have found that single-sex education on a whole school basis was unlikely to offer advantages over coed schools (Pahlke, Hyde & Allison, 2014). It should be noted that there is a voluminous amount of research on both sides of this growing debate on the pros and cons of single-gender classes and education in general.

Other research has further illuminated optimal conditions for the high school adolescent female's physical activity adherence. Many adolescent females need to be motivated to take part actively in physical education.

Young women perceive many barriers to active participation in organized physical activity. Physical education teachers would be helped by professional development that updates them with regard to motivational research. Specifically four factors seem to be imperative in motivating young women and girls actively participate in physical education: same-sex classes, rapport and a positive interpersonal relationship between teacher and students, the opportunity for students to influence curriculum and appropriate grading systems (Daugherty, 2008).

Additionally, it has been shown that the challenges and issues that are related to high school girl's disengagement from PE are consequential and are a long standing problem. A gender-inclusive approach has been suggested that is based in a relatedness-supportive learning environment. "Relatedness" is the sense of being connected to other students in a social context. Subsequently, "relatedness support" is defined as social environments in which students have the opportunity to develop healthy relationships with classmates (Gibbons, 2014). Standard PE classes generally do not foster this kind of class environment. Many times this collaborative culture is absent and there is a strongly competitive one in its place. Commonly, no one gets to know anyone on a significant level in these classes and many times students can find themselves being defensive and watching their backs to guard against emotional threats etc. Relatedly, Gibbons (2014) advocates interspersing team building and cooperative activities throughout the semester. Also, the instructor learning the students names as quickly as possible and

welcoming them into the class as well as helping the students to get to know each other and develop connections as quickly as possible. She also emphasizes helping the students to feel safe and valued and creating a positive culture beginning the first day of class throughout the semester..

Curves was founded in 1992 and was estimated to have over 4 million members by October 2006. By May 2012 Curves reported having 3175 locations in the United States alone. Curves fitness and facilities are designed for women (Fact Sheet Curves International November, 2006, Retrieved from Wikipedia website 4/6/14). Curves makes the claim that it is the world's largest fitness franchise and was recently shown to be one of the 10 biggest franchises in the world (Curves Now 10th Largest Franchise in the World, Curves International 2005, Retrieved from Wikipedia website 4/6/14).

Summary

In its totality the research outlined in the foregoing gives credence to the importance of the present study. The college women's demographic is a crucial segment of the preventive health picture for the United States in the future. Metabolic imprinting of obesity and other issues affected by the developmental origins of health and disease have created a unique situation in preventive medicine. The need for putting a high priority on young women's health and wellness has become self-evident to many health professionals. Consequences of actions taken at this life stage have been shown to have multi-generational repercussions. The fact that adolescent female's physical activity patterns are consistently less than males through this time period and beyond into later life calls for special approaches being tried to improve their adherence. Adolescent

females displaying a higher amount of barriers to physical activity also lends credence to the need for innovative change.

The research has shown that not only are college women more sedentary than men but that they are also more vulnerable to the stressors of university life. The literature linking stress reduction with exercise is replete which provides more evidence to supporting the promotion of college women's physical activity. There have been innovative college women's wellness models but they have been rare and mostly confined to women's colleges and universities. There is a dearth of them on coeducational universities campuses in the United States.

In some studies the importance of group cohesion to college women in physical activity settings has been demonstrated. The impact of social identity theory on group processes in the field of kinesiology is being shown as well but the research in this area is still really in its infancy. Another related area that is relatively new is the research on hedonic versus eudaimonic wellness factors in physical education contexts. Individualized hedonic rewards have shown to not be nearly as beneficial to human health as group-oriented eudaimonic efforts to accomplish a noble purpose.

Sororities play an important role in many college women's experiences. They have the potential to have large influences on the behaviors and lifestyles of their members. Unfortunately, until recently this advantageous influential position in college women's wellness lives has not been capitalized on. This may be changing however with a few chapters becoming pioneers in this area.

As stated earlier, most wellness programs for college women have been located on women's college campuses. There have been some female-oriented targeted physical

activity and nutrition-based interventions on coed campuses. They have been largely successful in contrast with interventions targeted at males. Internet-based interventions carried out over long periods seemed to have been effective in the area of women's physical activity promotion.

In the area of college women's student success and retention factors campus culture and particularly individualized classroom culture has been shown to be important. Classrooms that are welcoming, engaging, interactive, group process oriented and respectful of diversity seem to play a major positive role. Also, the interaction that the student is able to participate in with faculty both inside and outside the classroom is very beneficial if it is positive. If students feel that they and their work is valued they have the tendency to persevere.

The research on young women's post-college physical activity patterns has shown that at present more than two thirds do not meet minimum recommended standards. It is thought that physical activity patterns need to be habituated before reaching the career stage or the frenetic pace of family and professional life may not allow their formation them.

Finally, at many life stages for females there seems to be a significant number that may prefer an all-female physical activity setting. Some research has shown this may be the case in middle school, high school and in post-college venues like Curves. The current study investigates whether this inclination might also be true for some women in the college setting and whether this could be a positive influence in motivating more to want to participate in physical education/physical activity programs.

Creation of Innovation

It has been understood since ancient times that being physically active was one of the best ways to achieve and maintain health, and the first professionals in our field, many of them physicians, often referred to the field as physical culture or physical training.
(Estes, 2006, p.10)

Personal Conditioning is a standard activity course given at universities in order to direct the students into lifestyle fitness behaviors. The main purpose of this kind of class is to get participants engaged in a pattern of fitness enhancing behaviors in several different fitness modalities. Students learn to work out and gain the basic concepts and techniques required to develop an individualized personal conditioning program. For the most part learning is done kinesthetically through activity modeling by the instructor and then physical imitation by students. As far as cognitive learning goes lifting technique, aerobic technique and body anatomy such as names of muscles etc. are the main offerings. There is very little instruction of the mind/body holistic interplay of physiology employed. Also, the why questions of fitness/wellness are not addressed and the how's of physical implementation are the primary focus. The developed WPC course sought to do much more by carrying out the original physical-based intent of Personal Conditioning but adding a female-specific holistic body of knowledge that would promote their personal development and the well-being of them as whole women.

Seeing that the present delivery system of Personal Conditioning did not achieve these goals the WPC class was created. It was specifically designed to address the needs, values and proclivities of the college female demographic. Ideas espoused by Ann Cowlin and other researchers in this area were implemented. A cutting edge, neuropsychology derived, brain-based approach was also employed with much of the

educational content being dedicated to teaching the women how their biochemistry, female-specific neurochemistry and brain architecture and the overall physiology of their bodies and minds affected their behavioral patterns. In other words they learned the answers to the why questions as well as those to the how questions in fitness/wellness specifically for females. A great effort was also made to implement what the research showed to be the positive effects of cohesion enhancement strategies in creating team/family-oriented class cultures. Understanding from the literature base that these young women were going through their second brain growth spurt which was supplying them with thousands of extra neuronal connections that are especially attuned to higher order thinking regarding the shaping of their adult lifestyles motivated many WPC curricular choices. Relatedly and specifically, having knowledge from the literature foundation that there would be benefits for college women to have a better understanding of their physical selves the ensuing higher order thinking concepts were added to the standard Personal Conditioning curricular offerings. The partial list included mind/body chemistry, female-specific exercise/nutrition, behavioral influences of dopamine, serotonin and oxytocin, metacognition, positive relationships/social support, etc. The facet of creating a positive community of learners that constantly reinforced each other also called for several related learning concept sections. A comparison of the different learning concepts presented in standard Personal Conditioning then WPC is displayed in a table format. The numbers above show an example of the principles applied over 26 lessons. A large X indicates a major emphasis for that lesson whereas a small x represents a minor emphasis.

**CHAPTER III: STUDY 1 WHAT MEANINGS RELATED TO THEIR WELL-
BEING WERE STUDENTS MAKING AT THE END OF THEIR SEMESTER'S
WPC EXPERIENCE?**

After the WPC class was created and got underway the author observed that participants seemed to have emotional reactions to their experience and be affected behaviorally. It was decided in consultation with the author's major professor to try to explore the meanings that were being made through their participation by the women experiencing WPC. The behavioral effects of WPC also were investigated through qualitative research methods that included focus groups and in-depth interviews.

Participants

The data used in this study was garnered from 182 college women enrolled in a newly created class called Women's Personal Conditioning. It should be noted that males were not prohibited from taking WPC and two actually were actually enrolled in the classes used in the study. Their data were not included in the focus groups. The demographics of the sample were made up of the following: 54 seniors, (29.7%); 41 juniors, (22.5%); 65 sophomores, (35.7%); and 22 freshmen, (12.1%). With regard to ethnicity, 124 were Euro-American, (68.1%); 58 were African-American, (31.1%); 4 were Asian-American, (2.2%); 4 were Hispanic-American, (2.2%); and there were 2 Middle Eastern students, (1.1%). The class was started unofficially in spring semester of 2012. Inclusion criteria were to be a female enrolled in Women's Personal Conditioning.

Institutional Review Board (IRB) approval was obtained and an informed consent script was read assuring participants that their participation was voluntary and that they would not be penalized for not taking part. Also, they could stop at any time and they

would not be punished. They were informed that the information they supplied would be used as part of a study on a Women's Personal Conditioning Class.

Instruments

The methodology used for part of the qualitative research in the study on the Women's Personal Conditioning class was a focus group protocol. The focus group protocol consisted of questions that included: What are the first two words that come to mind when you think of Women's Personal Conditioning and what are they when you think of the instructor? Other questions included why they chose to take the class and what they expected to get out of their participation. They were asked if there were barriers to consistently taking part in the class. They were also asked whether the whole woman approach (physical, emotional and mental) was important. They were questioned about what parts of the class were most helpful and which parts were least beneficial. They too were asked what would make the class more appealing to college women. There was an important question about whether there were any lifestyle changes because of the class, what they were, and what could be done to make them a permanent part of their life and those around them. Finally, they were queried on whether they would take part in another class like this and whether or not they would recommend it to a friend.

Procedures

After IRB approval was obtained the students were advised by a written script that was read to them that they did not have to participate and would not be penalized for not taking part. They were also informed that they would be de-identified for the study and their confidentiality would be protected.

The interviews were carried out by audiotaping the answers from the groups and having them fill out portions of the focus group protocol at their discretion. The audiotapes were transcribed to written transcripts for analysis.

It should be noted that although the researcher is male an emic or participant's view of the WPC culture seemed to emerge. The researcher at times heard WPC members whisper to each other "there's a boy in the room" when young men would enter the classroom for various reasons. It seemed to be a type of warning to each other.

Apparently, the researcher was seen as a kind of neutral part of the holistic culture that did not carry the usual threat that being male seemed to elicit in the WPC members. (Creswell, 2007). They seemed to be able to relax and be themselves in the researcher's presence.

Data Analysis

The data analysis for the focus group interviews consisted of initial coding followed by focused coding. Once the focused coding had been completed foundational categories were determined and resulting, unifying overarching themes were analyzed using the Saldana (2009) codes to theory model for qualitative inquiry. Member checks were run to test credibility and trustworthiness. All of the respondents (6) agreed that the transcriptions were accurate and that the overarching themes and general categorization of the data were appropriate.

The focus groups were conducted at the end of each semester's classes. There were ten focus groups that had student populations that varied from 15-20 that were utilized for the data collection. The focus groups lasted around 45 minutes each. As per

IRB approval specifications they were asked for their informed consent to have their answers used anonymously and confidentially in the study on the Women's Personal Conditioning class. They also were informed that they did not have to take part and there would be no penalty for not participating. The questions were asked to each group openly and students were free to respond or not as their responses were being audio recorded. In some cases questions sparked conversations and in others there were just single responses with lots of head nods in agreement. At times a show of hands would be asked for to see how many who had not spoken agreed with the responder's statement.

Overarching Themes

From the focus groups data four overarching themes emerged showing that the female college student at the end of their experience of Women's Personal Conditioning class: a) displayed the presence of a female paradigm, b) valued and in some cases had accomplished a healthy lifestyle change c) had experienced cohesion through positive community. d) perceived the benefit of positive motivation.

Each theme was made up of several subcategories which are supported with accompanying discussion.

Female Paradigm. A predominant theme from the data was that these college women live within and create meaning from a female paradigm. Paradigm in this case is defined as a set of assumptions, concepts, values and practices that makes up a method of viewing reality for the community that shares them (dictionary.search.yahoo.com. 2014). The female paradigm is made up of five subcategories which include gender- specific

preference, the whole woman, sorority influence, gender differences and a woman's health impact on her future family.

The gender-specific preference is a phenomenon that these women displayed in relationship to their feelings about their preferences with whom they participated in a fitness venue with. They expressed in many different ways that they were more comfortable in a women only environment when it came to working out. In the whole woman subcategory students showed that they had an appreciation for a holistic approach in studying their overall wellness lifestyle. They recognized that the different parts were all interactive and at their best synergistic. The young women alluded to the natural relationship between the sororities that some of them were members in and Women's Personal Conditioning. Many of them learned of the existence of Women's Personal Conditioning through workshops and presentations that were given in their chapters. The subcategory of gender differences was also impactful to them. Learning the anatomical and chemical differences between males and females was knowledge that many of them seemed to find to be helpful. Finally, there was a small amount of recognition of the importance of gaining an optimal level of health in order to impact future generation's wellness.

Gender-Specific Preference. The dominant subcategory in the female paradigm was the gender-specific preference. This preference was strongly expressed in every focus group. If the participants said something specifically about preferring a women-only environment they were quoted here and also if they spoke of not having to worry

about being on display for the opposite sex their comments were included as well. There were many different reasons given by the various focus groups:

I liked it because I didn't feel like I had to look cute; I wasn't trying to impress anybody. If I woke up in the morning and didn't feel like putting my makeup on like I didn't have to and no one was judging me for it." (Focus Group 1)

It is important to have women only. It is not as good with men in the class. It is a distraction. With women we have the same background and she's going through what I'm going through." (Focus Group 3)

In this class we got to focus on women and there was less pressure to be "on" for the sexual tension there is when guys are involved." (Focus Group 2)

I wasn't looking forward to guys watching me in the gym but this class was helpful to get over that. It is normally stressful to go to the gym. I don't like to go to the gym." (Focus Group 3).

With all women there isn't a lot of competition. It makes you feel stronger. It is intimidating with men around. It makes you self-conscious. It is more comfortable around just women." (Focus Group 4)

We all go through the same stuff. We are less self-conscious. We don't have to worry about what the guys are thinking." (Focus Group 5)

It is clear from the above that in this case young women from every focus group prefer a gender-specific environment for reasons that may not be understood or related to by young males. It seems that when in a fitness venue these college females prefer it to be business oriented. That is, the business of learning to workout in effective ways as well as learning optimal nutrition for health and wellness. What isn't desired is a male-female courting environment where they may feel awkward unless they have prepared to be "on".

Addressing the Whole Woman. Another important subcategory in the female paradigm is the importance of educating about the whole woman. If students showed recognition of the importance of learning about physical, emotional and mental health or other holistic factors, their comments were included in this subcategory. Some of the statements from the focus groups included:

I think it is important to have the whole picture. To learn that is really an eye opener. This class wasn't in my major but it was more beneficial to my life. This class was seriously important." (Focus Group 3)

The whole woman approach was very important. We need all three physical, mental and emotional in dosages. If we don't get all three we look for the other.

All three of them helps you to understand yourself as a person. There were things

I just didn't know and I was like wow, now I understand. (Focus Group 9)

We need to learn about all three. It is about the whole body. Everything needs to be in line.” (Focus Group 10)

It is a learning experience, more of an education seeing how it all fit together. (Focus Group 6)

These young women displayed a sense of understanding of how important it is to take a holistic wellness approach to acquiring optimum health. It seemed instinctive to them to want to grasp the big picture of the different factors on their different levels that affect their health status.

Gender Differences Knowledge. It appeared that at the end of each semester the element of learning about the differences between male and female physiology and brain function was important. The students readily seemed to be able to apply what they learned to the circumstances in their own lives. They seemed to attach a high level of significance to this area. It could be seen in some elements how the meaning making behind some of their motivation patterns were different from the males.

For instance:

We have learned a lot about ourselves and learned the differences between men and women. It helps to recognize how guys are wired and get more understanding. (Focus Group 2)

Learning the different parts of the brain and the what and why of girls and guys

lifestyle was good. I was one person one day and the opposite the next. Now it's steady because on my eating habits being steady. (Focus Group 7)

We learned more about the differences between a female and a male and how the workouts and foods are different.” (Focus Group 1)

It doesn't bother me because I don't want to lift that much weight. I don't want to have big muscles! (Focus Group 1)

It can clearly be seen that the women gained insight into the differences between themselves physically as well as mentally with men. They also displayed the differences in meaning-making between males and themselves.

Influence of Sororities. There has been a continuous influence from sororities on the Women's Personal Conditioning class over the years. In this subcategory it has become apparent that the relationship has been bidirectional as there has been a significant amount of influence that has gone from the class to the chapters as well. Some of the related comments are:

I encourage my sorority sisters to take the class because it is fun and beneficial. It is a well-rounded class.” (Focus Group 7)

You should go around to sororities to advertise the class. (Focus Group 8)

There seems to be a natural kinship between the Greek sororities and the WPC class. They both run off of a sisterhood concept with familial affinity and community-based collaboration being foundational cultural understandings. The author thinks it is easier for sorority women to relate quickly to the team concept of WPC than non-Greeks.

Women's Health Impact on Future Family. In the focus groups there was a small reflection on the impact of metabolic imprinting on future generations. Comments were included if they spoke to the situation foreseen in the future to deal with children's health status.

The discussions about how our health state affects our future family helped motivate me. (Focus Group 7)

Motherhood may be an issue that is not thought of much at this college-age life stage. It may become more salient as time goes by.

Healthy Lifestyle Change. Another strong overarching theme in most of the focus groups was a sense of at least initial healthy lifestyle change. This theme too was made up of five subcategories which included health knowledge, metacognition, self-care, the impact of visual aids and changing activity levels from high school to college.

Health knowledge was the overall understandings that the students had at the ending of their class semester about exercise, nutrition, the importance of social support and the biochemistry of the mind/body. Self-care was about learning different ways for women to enhance their well-being in holistic manners and valuing themselves more. Metacognition entailed them learning how to think about their own thinking and particularly thinking about how they were feeling emotionally (subconsciously). This could give them help in understanding motivational issues, especially around eating. The use of visual aids which included sugar and fat vials showing contents of popular foods seem to have been very influential with regard to future food choices. There was a light amount of discussion of activity level change between high school and university life.

Health Knowledge. If the participants talked about nutrition, emotional eating or exercise knowledge their comments were reported here. There were many examples of this within the focus group data, for example:

To the question what parts of the class helped you the most and why?

The nutrition part. A lot of different things I hear and I don't know what is good or bad. (Focus Group 6)

I eat emotionally. If am stressed out I eat. This class gave me the coping mechanisms to get past that. It helped me to understand why this happens to me.

It taught me how the physical and nutrition aspects tie together.” (Focus Group 5)

I think it was really neat to learn how the brain works and how different foods affect different parts of your brain and how they make you feel. It explained a lot of what was going on in my personal life like oh, I feel this way because I'm not eating right, I'm not working out, I'm eating the wrong foods for the wrong reasons. (Focus Group 1)

Learning about the new science behind eating. It's easy to grab burgers everyday but the easy route isn't the best. (Focus Group 2)

I cut back and eat less because of the class. Portion wise I am learning to cut back.

I also am more aware of my portion sizes. In restaurants I say could you please cut it in half for a to go box. (Focus Group 2).

There are no classes [at the Rec. Center] that are going to teach me how to use the machines, nothing that is going to teach me how to eat you know, and teach me

about the chemicals in my brain, nothing like that. (Focus Group 1)

The health knowledge that these young women received particularly about nutrition and eating patterns seemed to be very beneficial as far as moving toward a healthy lifestyle change.

Metacognition. Students also seemed to acquire more of an ability to think about their own thinking particularly in the area of conscious versus subconscious cognition. Many of them seemed to recognize that some of their former actions were being controlled by their subconscious and not always to positive results. This was a strong outcome of the women's WPC experience. This may be to be expected since every class started with the author checking each student's metacognition level and many ended with the author checking to see if the activities in the class had caused it to change. This seemed to help internalize this behavior and it seemed to have an appreciable effect over the course of the semester on their habits of mind. Comments were included that displayed them thinking about their own thinking:

I think more now about my water consumption. What was subconscious is now conscious. (Focus Group 3)

I'm more conscious now of what I am doing more. (Focus Group 1)

Eating better and being more aware. I used to go to McDonalds every day and Now I try to do it once a week. (Focus Group 4)

It's subconscious, the limbic system. You are doing it before you realize you are doing it." (Focus Group 4)

Why we make the decisions we make and why French fries looked good.

(Focus Group 7)

It is great to learn about different brain chemicals and about what is going on.

Knowing yourself and being conscious of what I am eating and doing.

(Focus Group 6)

I've been more conscious of my nutrition choices, even if I wasn't always making the right choices, I was like oh man I know this is going to affect me this way, it'll make me tired. (Focus Group 1)

Planning ahead instead of reacting. (Focus Group 7)

This represented an important step for these young women in moving toward becoming more autonomous especially in their dining behavior. Food issues are a large part of the challenge for the twenty first century young American woman. There are too many readily accessible and inexpensive bad choices and too few readily accessible and inexpensive good choices.

Self-Care. Another related subcategory that was expressed by the students was that of a greater sense of self-care. They seemed to become more aware of the need to schedule time for their own well-being in their busy weeks. Comments from participants were included if they reflected an increase in the recognition of the importance of monitoring their own behavior to try to achieve a healthy balance.

Learning to make time for yourself and getting a workout in at least 3-4 times a week. (Focus Group 4)

Treating myself and taking care of myself better. (Focus Group 9)

I have started making better choices. I know that socially eating can be unhealthy

when with friends. I have learned how to approach my friends to get them on board. (Focus Group 3)

I am conscious of nutrition. I know this will affect me this way and that will affect me another way. I want to eat better and I'm caring about more than my physical appearance. (Focus Group 6)

These students showed signs of becoming more self-aware and better able to self-regulate going into the future.

Effectiveness of Visual Aides. The impact of actually seeing the amount of sugar and fat in display tubes that various processed foods have in them was influential. It seemed to make a big impact on them to actually see in concrete form the amount of sugar and fat represented in a tube that they could hold in their hands. Their comments were included in this subcategory if they actually mentioned the tubes:

The tubes of sugar and fat that allowed us to visually see what we are ingesting were really impactful to see. (Focus Group 7)

Going over the eating habits, the repetition and the showing of the sugar vials really helped a lot. (Focus Group 8)

The visual aides are very impactful, seeing how much sugar and fat is in everything is impactful. (Focus Group 10)

The author witnessed shock on the student's faces when they actually saw the vials. It shouldn't be surprising that the concrete experience they went through in realizing how

much sugar and fat some of their favorite foods had in them had long-term effects on their memories and behavior.

Activity Levels Change from High School to College. There was a slight amount of recognition at this point on the decline of physical activity going into the college years. Comments were included if they spoke directly to this issue:

Coming from high school to here you struggle because you are not as active as you used to be. This class makes you want to do it more, it helps restart you. It is very beneficial to college people who are not in sports anymore. (Focus Group 7)

Many of these young women were juniors and seniors at the time they took WPC and so the memories of their fitness levels in high school compared to those in college may have faded.

Cohesion Through Positive Community. There was a strong expression of the beneficial effects of cohesion through the building of positive community in the focus groups. This seemed to have an independent positive effect on the outcomes from the class. This theme was also made up of several (3) subcategories. Among them were positive culture, social support and stress reduction.

The element of positive culture and its effects was laced throughout the focus group discussions. It was seen as an integral reason that the class had many of its beneficial outcomes. Social support was also recognized as being very important. The students seemed to find that this kind of team approach was very rare in their higher

education experience. A primary benefit of WPC was seen to be its ability to reduce stress. This followed from the positive culture and related social support.

Positive Culture. This was cited often by most of the focus groups as being an important factor in their experience. They did not seem to experience such a culture in most of their other collegiate settings and it had a far-reaching effect. The participants comments were included if they dealt with positivity or team building and a good environment. For instance:

I got more of a positive outlook on stuff. I've always been kind of positive but when I came to this class everyday it kind of cheered me up because there wasn't anybody necessarily telling me I'm doing a problem wrong or something wrong in class but they were being positive about it and telling me that I can work harder and be better. I continually was trying to improve my life so with that in mind, thinking that I can improve my life then I did start to and it just changed things in general. (Focus Group 1)

The team building the good environment and getting to know everybody made the workout better. (Focus Group 2)

Group warm ups brought us closer, it was like a team. (Focus Group 3)

I got more of a positive outlook on things. This class cheered me up, it was always positive. (Focus Group 6)

There was a general feeling of positivity that marked the class experience as something special in their day. It seemed to set the tone for all of the other class activities.

Social Support. The increased social support was another factor of the community that the focus groups appreciated. Their mental state and attitudes were influenced in a positive direction. Comments were included if they entailed encouragement, friend making or the garnering of emotional support. For example:

The encouragement from all and the teacher being excited about working out helped me to have a better attitude, definitely. (Focus Group 8)

It was a workout class but I gained friends and more. It tremendously changed my life. (Focus Group 9)

We know each other and we become each other's emotional support.
(Focus Group 9)

WPC seemed to have a strong effect on some of the student's interpersonal relationships. They recognized the benefits at the end of the semester and possibly even more as time went by.

Stress Reduction. The effect of the class on stress reduction was also cited. There has been significantly more stress reported by college women than college men so this has had a particularly important role to play in these young women's lives. It seemed to be an essential part of the effect of the cohesion through positive community. If participants mentioned stress relief, stress release etc. their comments were included. For instance:

I feel like it blows off stress. We get caught up in our studies and don't have time

to go to the gym. We haven't eaten right and so if there is a class we have to be there to push through that is good. It calms your day like Yoga. (Focus Group 2)

It is not only a stress relief to exercise but the positive interaction in the class is also helpful. (Focus Group 5)

It's a stress releaser. (Focus Group 9)

They seemed to gather stress during other parts of their day so this seemed to be an important respite period for them. This was recognized as being independent from the effects of the exercise that the class supplied.

Positive Motivation. Finally there was a strong theme of positive motivation running throughout the focus group discussions. It seemed to have an activating and energizing effect on their exercise and nutrition patterns. It too was made up of three subcategories. They were motivation, confidence and expansive positive effect.

There seemed to be a connection between positivity and motivation to workout. The positive environment also seemed to promote a growth in confidence among the young women. The positivity of WPC also seemed to have a tendency to spread into other parts of the student's lives.

Motivation. There seemed to be a link between the affective positive state and the motivation to physical activity. The approach of the class seemed to have an overall motivating quality. Comments were included that mentioned positivity, motivation, encouragement and described more motivated exercise states. For example:

I have continually told my friends that it has kept me positive and it's made me

want to work out more. (Focus Group 1)

I know that I would work out especially with you being so motivating. It made it to where you wanted to work out just out of respect for you and out of respect for ourselves as well. (Focus Group 1)

I want to come to this class; it encourages you to do your best. (Focus Group 6)

Kept me positive and made me want to work out more. (Focus Group 6)

You motivated me to a whole different level by teaching me the why and how's.

I've learned how it's changed myself and others around myself." (Focus Group 9)

I am lazy and I never did anything before but now I am running a mile and a half every morning. (Focus Group 10)

The young women displayed a different attitude seemingly from their exposure to the positive environment in the class. It seemed to help them find a new dimension of motivation within themselves.

Confidence. Participation in the class seemed to promote a significant amount of confidence. There seemed to be a positive element in this as well. It seems that some of this confidence had been lost since their time in high school. Participant's comments were included if they mentioned confidence or reshaping their mind in a positive direction:

I had confidence back when I was playing sports and then I lost my motivation. I didn't like to work out but this is motivating and you are motivating, it teaches us respect for ourselves. (Focus Group 6)

I have more confidence to go to a gym and not look bad. (Focus Group 7)

Being in the class has helped me to understand how to shape my mind positively.
(Focus Group 3)

Having an adequate amount of confidence is an important characteristic for these young women. There seems to be many places where their confidence can be shaken or depleted significantly. It seems to be an important beneficial effect of this class environment to bolster that sense of confidence.

Expansive Positive Effect. There was a tendency for the positivity to become expansive. It had a propensity to spread to other areas of their lives and impact other relationships. It also had a way of affecting them in other life settings. Comments were included that mentioned other people, other parts of their day and other areas of their lives. For instance:

I have helped my mother and now I taught her what I learned in the class about positive energy. It is rubbing off. (Focus Group 2)

The positive attitude affects everyone. You have a good attitude for the rest of the day. (Focus Group 6)

This class helps me to balance out my stress. This class helps to spread out to other areas. (Focus Group 7)

You kind of have that attitude [positive] the rest of the day. You think hey I can do this and it makes you like OK I want to come to this class because I know it's going to be that positive environment.” (Focus Group 7)

The positivity of WPC seemed to have a ripple effect into other areas of students' lives. It seemed to have an expanded positive effect on a time dimension as well as geographical and relational dimensions.

Reaction Responses. Students were asked to write the first two words that they thought of about the class and the instructor. The top responses for the class were: working out (18), exercise (15) and health and wellness (14). The most prevalent responses for the instructor were: great motivator (16) positive enthusiasm; and caring (15) and encouraging (14).

**CHAPTER IV: STUDY 2-WHAT MEANINGS RELATED TO THEIR WELL-
BEING DID STUDENTS MAKE LONGITUDINALLY FROM THEIR WPC
EXPERIENCE?**

This chapter will look at the College Women's Wellness Program as a whole and will examine its development over time. This narrative will be wrapped around a final examination of the cumulative effects of the class on young women. This will be accomplished through one more qualitative study that is based on semi-structured in-depth interviews with some of the women who have taken Women's Personal Conditioning from spring semester 2012 to spring semester 2014. An effort will be made to investigate longitudinal wellness effects at different time points such as 6 months post-class, 18 months post-class etc. and it will have a particular focus on elements of support and engagement that have been identified by recent research as being important in retention and student success for college women.

The author realized after conducting Study 1 which consisted of focus group interviews at the conclusion of each semester that there had been several positive effects on the students. These were qualitatively analyzed and four overarching themes with various amounts of subcategories for each emerged. The question then was would these beneficial effects expressed through themes continue through time? Also, would students see positive potential for WPC in the area of student success and retention? Finally, would any other themes emerge with the longitudinal effect of the passage of time and distance from what was experienced and the meanings that were made from their experience in WPC?

Participants

In-depth interviews were conducted with 32 young women out of 182 from the WPC classes. This sample was taken from a total of 38 who were ultimately contacted. This was a convenience sample. Consideration was given to acquiring a representative number of respondents from earlier semesters and university population proportional ethnic diversity. There were 6 African-Americans, 2 Hispanic-Americans, 1 Asian-American and 23 Euro-Americans in the sample. The women ranged from 26 months post-class to 2 months post-class so there was a longitudinal element to the interviews. Students were contacted via email, social media, phone and word of mouth. Some had graduated and now were beginning careers. The chart below shows the distribution of respondent's semester and year:

Table 2: Semester, Year and Ratio of WPC In-depth Interview Respondents

| Semester and Year | Number/Total Students Per Sem. |
|-------------------|--------------------------------|
| Spring 2012 | 5/28 |
| Fall 2012 | 5/38 |
| Spring 2013 | 4/42 |
| Fall 2013 | 11/73 |
| Spring 2014 | 7/69 |

Procedures

As per IRB approval instructions they were assured of anonymity and confidentiality and were informed that they were free to participate or not at their discretion. Part of the sample was interviewed face-to-face (18) and others were allowed to answer the questions and email their responses (14) because of logistical challenges in many cases. The in-person interviews usually took between 45 minutes and an hour to complete. They provided a thick and rich description of the student's experience in the class and their effects over the subsequent time span.

It should be noted that although the researcher is male an emic or participant's view of the WPC culture seemed to emerge. The researcher at times heard WPC members whisper to each other "there's a boy in the room" when young men would enter the classroom for various reasons. It seemed to be a type of warning to each other.

Apparently, the researcher was seen as a kind of neutral part of the holistic culture that did not carry the usual threat that being male seemed to elicit in the WPC members. (Creswell, 2007). They seemed to be able to relax and be themselves in the researcher's presence.

Data Analysis

The data analysis for the in-depth interviews consisted of initial coding followed by focused coding. Once the focused coding had been completed foundational categories

were determined and resulting, unifying overarching themes were analyzed using the Saldana (2009) codes to theory model for qualitative inquiry. Member checks were run to test credibility and trustworthiness. All of the respondents (6) agreed that the transcriptions were accurate and that the overarching themes and general categorization of the data were appropriate.

Overarching Themes

The overarching themes that had been expressed in the focus groups were all generally corroborated in the interviews (there were two individual women of the 32 who expressed divergent views on two different themes and these will be reported at the end of each of the applicable theme sections). They were: existence of a female paradigm, healthy lifestyle change, cohesion through positive community and positive motivation. They seemed in fact, to be deepened by the passage of time and life experience. In addition to those overarching themes, one more emerged. It was transformational empowerment. The subcategories for the four original overarching themes generally held but the data will not be presented in that manner so as to avoid redundancy. The young women were very thoughtful, insightful and profound in their comments so as much as possible the author will let their meaning making commentary speak for itself. A pseudonym set of initials and the student's semester of participation will be used to designate the respondent.

Female Paradigm. With regard to the subcategories the gender-specific subcategory was just as strong or stronger with the interim of time of 26 months to 2 months. The importance of the whole woman was also very strongly advocated as well. The importance of knowledge of gender differences was also strongly expounded. Finally

there was a growing recognition of the young women's health impact on their future family.

Participants were included if they mentioned gender specificity, an all-woman aspect, aversion to working out around men, building connections through an all-woman environment, aversion to an environment where there were rivalries and "showing off for the guys", sorority roles, etc. For instance:

M.G. from fall 2012 offered:

I loved the bonding time with other friends, sorority sisters and new faces. It also helps when classes are gender specific because women usually don't want to work around men as it can be intimidating or off putting all together. So now that I am not in the class I usually exercise with other female friends, by myself or with my dog. The only man I ever care to be around when working out is my husband. I was raised with four older brothers so when men are around I over exert myself causing injuries.

It can be seen that the mere presence of unfamiliar males in a workout setting can cause strong negative feelings in some young women.

D.M. from fall of 2013 said:

The all-woman aspect of WPC was important and impacted my life especially in the relationship area. It was important to not only know nutrition and exercise, but to know more about our hormonal state, how our emotions are impacted through

different triggers in our lives as women. The whole woman is important to understand as a woman. The last time we really hear and go in depth about our own bodies and nutrition is in ninth grade. It's important for female college students to remember and still know how we work as a whole.

There are obvious educational implications in this statement. These young women are sensitive to the fact that they have been educated only slightly about their own bodies and nutrition in the course of their academic experience. School age curricular patterns may find this insight instructive as to the lived experience of the young female student.

S.G. from spring 2012 stated:

I really enjoyed that the class was only for women because personally, working out with guys can be a little intimidating. Men and women have completely different ways of working out and I think that women appreciate having a class that is geared towards their bodies and personal health. But also added: Girls are tricky when it comes to getting along in certain situations such as this class, but I feel like all of the women in my class got along really well and really connected with one another.

Apparently, the collaboration and community building aspects of the class were beneficial as far as breaking down barriers between these young women.

D.W. from spring 2014 said:

I like being surrounded by women, I was able to relate and connect easier to the problems in my life. I found myself sharing private parts of my life with girls that

I did not know very well, because they were going through the same thing or something similar. I feel like the all-woman aspect of the course really helps build a connection that motivates us to push forward.

T.W. from spring of 2014 said:

Yes an all-woman's class is I think important because we may feel intimidated by a man in the room during workout or not letting on how we feel out loud because we may get embarrassed, or we may think they will judge us in a way we don't like unless they understand us. All women have a common feeling when it comes to looks or how we feel so I think it is easier to talk openly about that when it is an all-women's class.

I.O. from spring 2012 said:

I loved the all-women aspect of the class. It gave us a sense of closeness and made our bond stronger. In WPC there was no pressure to impress the opposite sex and that helped us stay focused on the reason we enrolled in the class. The class helped me to realize I cannot focus on the things around me when striving to reach my goals.

The element of not having males in the class seems to have been helpful as far as lowering the tendency toward interpersonal rivalries.

F.E. of spring 2013 said:

I guess just knowing how a woman's body works and how it is different from a

man, I can understand myself and manage myself better. Other classes are more unisex and this helps to equip and empower us with information. The different chemicals and how they affect us. I learned a lot of valuable information on the holistic studies. Some things were simple changes that make a big difference. It has helped me to lay out a new lifestyle.

S.P. from spring of 2013 said:

The all-women aspect was important because we could relate to each other in life experiences, hopes, dreams, and feelings. I felt more accepted in this class. Typically I don't open up to classmates, but in this class I opened up to almost everyone really quickly."

This speaks to the commonality of the lived experience of the young college female.

G.W. from fall of 2013 said:

I was so surprised to find out that we would be learning about the whole woman. This definitely helped, as it tied everything together. It really made me understand WHY I was working out and how it affected me, instead of just HOW to work out.

The understanding of how her body functions is an important insight to college women.

M.A. from fall of 2014 said:

I think if there had been guys in the room it would not have been as personal. I don't think I would have met as many new friends. We would have been showing

off for the guys.

Again, the element of rivalry not being present is showcased.

M.B. spring of 2012 said:

I like to work out with a woman. I don't even like to work out with my boyfriend.

P.C. from fall of 2013 stated:

I think that the all women aspect helped us to bond easier. I got a lot more from this class because we were closer. It was easier to be able to know one another but it could have also just been the class itself.

Again, the collaboration/community emphasis in the class seems to have a homogenous effect.

A.O. from fall of 2012 said:

I think women might feel uncomfortable with men in this class if they aren't used to working out or if there are any insecurities. When it's just women together, it's easier to bond and easier to be open.

M.P. from fall of 2013 said:

I really enjoyed the all-woman aspect. It really shed light on the importance of a woman's lifestyle choices on future generations.

This is evidence of the realization by some of the young women of the impact of decisions they are making now on their future children.

W.H from fall of 2013 said:

I think when women get together it is always a fun time, but when women are in the gym to encourage and push each other it is really an amazing thing. And to get rid of the idea that some create about the gym being only for men, they are wrong.

A sense of being discriminated against in the area of fitness training comes through in this comment. Some young women are feeling ostracized from fitness venues.

F.L. of spring 2013 said:

I think the all women aspect is really great. It helps the environment to be safe with no judgment, and no makeup. If guys were in there, there would be more focus on being perfect for the guys and competition instead of working together.

P.C. of fall 2013 said:

I think it is beneficial to have it be an all-women's class. It is easier to be more relaxed and open with just women in the class. It is a different type of bonding when it is just women. The bonding is best when there aren't any distractions.

F.L. of spring 2013 said:

Female athletes don't have the image pressure but for cheerleaders in order for you to do good you have more visual requirements, hair styles, tanning and weight. It was extreme pressure to have the right "skinny" appearance.

Appearance was everything but this class helped with that.

There is apparently a great deal of pressure felt by young women who participate in cheerleading, dancing etc. in high school and college to maintain a certain perfectionistic body image. The class seemed to be helpful in ameliorating this negative objectifying influence in this case. This is very important because many of the women who choose WPC often have these kinds of backgrounds.

G.W. of fall 2013 said:

This may seem typical of a young girl, but the lectures we had about the chemical differences in males and females really helped me. I understand the opposite sex and myself a lot better than I did before and I think that has benefitted me greatly. I no longer strive to compete with the men at the gym because they are made up differently than I am. Now I am able to focus on myself without worrying about competing.

The understanding of the sexually dimorphic differences between males and females such as brain architecture, neurochemistry and lean body tissue percentage seems to be helpful to some young women in relaxing the tendency to feel the need to be competitive.

A.D. of spring 2012 said:

I was in another PE class that had only three girls and the rest were guys. They took the male approach. I didn't like it. I didn't enjoy the competitive element. I didn't need the stress. I took the class to relieve stress. This is why I never wanted to try out for intense sports in high school. The coaches were too hard on you they

kept adding more and more weight and were pushy and I didn't enjoy it. That is why I love your class. It wasn't stressful but still a great workout. I knew I'd push myself but not hurt myself. You were nice about it. You were not going to yell. There was more camaraderie in WPC. I don't remember anyone in that other PE class which is unlike the WPC class. Also, PE in high school was negative for most girls. Only sports people really enjoyed it.

This shows that there may be a significant amount of young females who don't appreciate the male paradigm model of PE. Recent research has shown that females with higher levels of testosterone prefer highly strenuous workout experiences (Cook & Beaven, 2013). This may mean that there are a large proportion of higher estrogen/lower androgen females from puberty on who prefer a more moderate, female paradigm model of PE.

C.W. of spring 2014.said:

Learning a lot about hormones made me better understand a guy's perspective. It helps you to understand more of what is going on in their thinking nature.

M.G. of fall 2012 said:

I feel like the way in which you explained the brain chemistry helped explain a lot about why women are the way we are. So anyone wanting to know this would have a great reason to take the class.

T.G. of spring 2012 said:

It helped me to better understand the differences between men and women on an anatomical chemical level. It helped me better understand why it can be much

harder for a woman to lose weight or even have certain feelings.

W.H. of fall 2013 said:

I learned a lot about women's health and that different situations in life we face can affect our overall health. It was also nice to meet other women in the class and see how everyone could relate in different ways.

M.B. of spring 2012 said:

It was nice to really understand how women are and it helps me to know that everyone has things that they don't like. It has helped me to like myself more. It has changed my perspective. I work out for my social time now instead of going shopping or I will go for a walk with a friend. Outside of class there is more of a rivalry still between sororities. The sisters that were in my group ended up getting closer because of the experience. In class it was important to have all women. If there was a man here there would be more competition. It was a free zone. I didn't have to worry about what I looked like. I didn't have to be self-conscious. She added: I would have loved it more if there wouldn't have been Greek women in the class. I think it would help to take it with women that we don't know. There is a rivalry between the different sororities. I had to always watch what I was saying and doing. I couldn't just be crazy. I think it would have been nice to have all of the same chapter in the same class, that way you wouldn't have the rivalries.

Conversely:

I.W. of spring 2014 said:

I don't think it needs to split between sororities. I think there is a commonality between us and that is how we should do it and not worry about splitting us up. I don't care if someone wears letters or not. I choose friends based on who the person is.

There is a difference of opinion concerning whether the class is better with sororities mixed or all from the same chapter.

My sorority and this class are very similar. I like how it makes me feel like I belong. It is like a family.

A.O. of fall 2012 said:

The girls in my class were from other chapters. The wall seemed to come down in class. If I saw one of the girls that were in my class I would say hi to her. It wouldn't be like it was before the class. It had a positive effect.

I can think of a lot of positive reasons to have the class be all the same chapter.

You could deepen the relationships. You would have that commonality. I think it would help to have the long lasting effects that you can also use in the sorority.

You can hold each other accountable.”

M.W. of spring 2014 stated:

I had just joined a sorority so that I could have that all women support. There is

competition for guys when it is coed. I would much rather work out with girls as it is more comfortable.

T.C. of fall 2012 said:

I was a member of a Greek organization when I entered the class so I was already involved on campus. But the community of WPC was different than that. I believe that we were all there for the same reason- to better ourselves. And because of that, there became a special bond with all who took the class.

B.F. of fall 2012 stated:

In the class the walls between sorority women came down. Outside of class it could be different. The walls would go back up and that is really dumb when you think about it. I think you should keep it mixed because there is a lot of drama within sorority walls.”

T.C. from fall 2012 further said:

The all-woman aspect was so important. Women have a tendency to be out to get one another, to be judgmental and jealous. I have been guilty of this more times than I'd like to admit. The all-woman aspect brought that into perspective. The class was diverse. There were women of all shapes, ages, sizes, and women from multiple campus organizations. The focus on community was incredible. Instead of belonging to a group with cliques or women who judged and tore each other down, we belonged to a group of women who got to know each other on a deeper level than just the way we looked, or what organization we belonged to. I knew

that when I woke up to get to that 9 am workout class that the other women there had my back, and wanted the best for me. Working out and answering questions was not intimidating in this class we knew we were all there to improve ourselves and support one another.

Again, the class seemed to have a positive, unifying effect on some of the women in it regardless of where they were coming from in their lives previously.

One of the two dissenting comments involved the female paradigm.

T.G. of spring 2012 said of the female only environment:

I think that it made many of the other women in the class more comfortable because a lot of them expressed being uncomfortable or self-conscious about working out. I have never really shared the same feelings, so for me I did not mind it either way. It was beneficial to the majority of the class but an occasional added testosterone could also help put some concepts into perspective.

It can be seen from the comments from the in-depth interviews that the overarching theme of the meaning making of a female paradigm was very strong. There was evidence on many different levels of its existence in the WPC class environment. The great majority of young women seemed to be comfortable in this female dominant culture and expressed their reservations about participating in fitness/physical activity settings that diverged from this. It seemed to be a positive factor in an arena that may have been somewhat problematic for them before.

Healthy Lifestyle Change. In regard to the healthy lifestyle change overarching theme the subcategories of health knowledge, metacognition, the importance of visual

aids and the difference between activity levels in high school versus college were seen as being important months and in some cases years removed from the experience of the class. Participants comments were included if they spoke of improved eating, hormones, behavior change, lifting weights, exercise confidence, etc. For example:

T.W. of spring 2014 stated:

I do eat differently and see it differently. The class showed why women will eat Their emotions instead of getting help in other ways. I know it is hard to eat right when you are on the go or stressed out but you can control that and learn to pick the right foods even on the go or cramming for that final test. She added:

Understanding it is not what others think about you but what you think about yourself. You really do have to love yourself first before you can make others happy and listen to you. If you hide behind food and closed doors then you are living an unhealthy life style that could be deadly.

This comment is telling as to the thinking process that some young females may be experiencing.

I.O of spring 2012 said:

One thing I know that has stuck with me is actually paying attention to what I eat. In class we were shocked to find out some of the ingredients that were in the foods we ate on a daily basis. Not saying that I eat the healthiest all the time now, but I do pay attention to the main things like calories fat, and sugar. And she

added: One thing I took from the class is that my body only does what my mind allows it to do. I learned that if I condition my mind, then conditioning my body would be so much easier.

The brain chemistry lessons of the class seemed to be helpful.

D.M. fall of 2013 said:

When learning about eating patterns, I learned a lot about nutrition. It helped that we all discussed our favorite meals, and things we liked and did not like. Just getting to know classmates you learn about different ways to cook, some healthier than others. Plus the class or some of the girls and I would discuss the calories in foods on menus. I learned when to eat, how to control my hunger. A fourth of a cup of almonds is my favorite filler between meals if I get hungry.

This is a strong indicator of Social Cognitive Theory at work.

I.G. of fall 2013 said:

WPC did affect my eating patterns. I learned a lot about how our hormones cause us to crave certain foods. Having this knowledge allows control of my eating habits. When I am craving salty chips, I can substitute some almonds instead. If I am craving something sweet, yogurt and fruit will do. These changes combined with exercise have made me feel so much better. I have also not been drinking as many Diet Cokes as I used to.

S.P. of spring 2013 said:

The nutrition did change my eating habits. I stopped eating fried and greasy foods and switched to ham and cheese sandwiches and back food. Yes, the changes are

almost permanent. I sometimes crave unhealthy food once or twice a week because I don't eat it so much. I also drink water every day.

L.P. of fall 2012 stated:

WPC taught me more about the human body than just working out. It affected me in many positive ways; it taught me to think about what I was putting in my body. My eating habits changed because of this class, I eliminated sodas and eat more green vegetables.

M.W. of spring 2014 said:

The class made a positive difference. I learned a lot about my body and about how my behaviors affect me in the future. I stopped drinking cokes and started drinking straight water.”

I.W. from spring of 2014 stated:

I started lifting weights and I am feeling a lot stronger and this gives me more confidence. Now when I eat something that isn't good, at least I know that it isn't.

The emphasis on strength training for young women seems to have had a robust effect.

A.D. spring 2012 said:

One thing that stuck was the test tube of sugar. I stopped Pop Tarts because of learning about sugar.

During the class students were shown vials with the amount of sugar that is in certain common processed foods such as soda, frozen yogurt, Pop Tarts etc. It seems to have struck home.

W.H. of fall 2013 said:

Learning about the proper nutrition was really an eye opener for me, to reflect on what I eat what's bad and good-watching what I eat now is hard, balancing my time, now I have to grocery shop. I have learned it's OK to work out on your own pace and not compare yourself to others.

M.A. from fall of 2013 said:

I probably work out a little more than I was. My boyfriend and I went to the gym and did the same thing now I branch out with the girls. I am glad I kept it up after breaking up with my boyfriend.. Now I have the set up to go and be OK.

The experience of the class seemed to help her find an independent spirit that allowed her to continue her fitness habits despite the loss of her regular workout partner.

You did a good job of scaring us away from the liquid candy (soda). I also feel more confident in talking to other people about a lifestyle change. It is not dieting.

The phrase "liquid candy" was used consistently in the class to refer to soda in order to change the perception of the students toward the chemical makeup of carbonated beverages.

P.C. of fall 2013 said:

The fitness and nutrition information was great. It affected me in a big way. I went from being interested in it to being an enthusiast.

M.B. of spring 2012 stated:

I have an appreciation of how easy it is to work out. I am enjoying it more now. It doesn't have to be painful or competitive. I try to do different things to work on different muscle groups.

A.O. of fall 2012 said:

I would pack my lunch on campus and try to eat healthier. If I was eating three times a week on campus I would start craving fast food and I didn't want that. I started eating better since the class. I try to really think about what I am putting into my body now.

D.W. of spring 2014 said:

I have changed some of my eating patterns. I have tried to focus on more protein and vegetables at specific times throughout my day. I try to steer away from the less healthy choices and try to eat more fresh home cooked meals.

It can be seen in these last few comments that the class affected the judgment of what constitutes a reasonable workout and healthy eating patterns going into the future. The young women seemed to get a better grasp of how to control their eating and create a balance between exercise and nutrition that used to exist naturally in our forebears lives.

Cohesion Through Positive Community. This overarching theme contained the subcategories of positive culture, social support and stress reduction. There were many examples in the in-depth interviews of this theme. Comments were included that spoke to special bonds created, team building, social support, community, belonging, connecting, etc. For example:

T.C. from fall of 2012 stated:

Although I rarely saw the women in WPC on campus after the completion of the course, whenever I do, there is a special bond when we say hi or give each other a hug. I cried on the last day of class!"

G.W. from fall 2013 said:

The team building aspect was so important. Without everyone cheering me on I don't think I would've continued in the work out or been as successful in the process as I was. Social support is crucial in every aspect of life and this class made me realize that. She added: On a big campus like MTSU it can be difficult to find where you fit in. This class helped me see that it is easier to fit in than I thought. The group of girls in my class was so diverse, yet we all got along very well and became like a small family.

M.G. of fall 2012 said:

It was a nice change of pace from the other groups I was a part of on campus. The focus on positive exercise habits for women was different than any other group. I loved how the class helped me to be more Panhellenic than I was before the class. I also met a very diverse group of people that did not belong to the Greek system. Yes, I was very much welcomed into the group.

Again, the collaboration/community element of the class seems to have been very positively impactful on some of the young women.

D.W. of spring 2014 said:

The social support was extremely helpful in this class. I was affected emotionally, because of the fact that many of us were going through similar things and it helped me to feel like my problems were not really as big as I was making them out to be.

F.L. of spring 2013 said:

I loved that we had our team names. It gave us community and made us feel that we were all one. We would talk like we were a family and it got me closer to

them and it made me want to come to class. I was coming to be with my family which made me more motivated.

This may be an example of Social Identity Theory at work. The creation by the teams themselves of their own team names and then self-identification afterwards using them consistently seems to have had a positive bonding effect.

M.P. of fall 2013 said:

The team building/social support aspect was also very encouraging. On the first day of class I was very worried that I would be embarrassed in front of the other girls. I thought it would be a very competitive class and that really worried me. Coach made the atmosphere very relaxed and positive. It was nice not feeling inferior to any of my classmates and working together as a team.

T.C. of fall 2012 said:

During the class, I went through a tough time in life, and the release that came from the physical activity changed the way I handled my situation. As I said earlier, the change was temporary at first, but I have since gotten back into a routine and a positive mindset and continued the journey.

This may be an example in Social Cognitive Theory of how something that is learned earlier may not have its full effect until later on.

T.G. of spring 2012 said:

I did like the team building exercises and I made a couple of friends. It made me more comfortable in the class and happier leaving.

I.G. of fall 2013 stated:

This class definitely gave me a sense of belonging on campus. In fact, it was the

highlight of my day. I loved coming to WPC because I knew that I would ALWAYS leave feeling better than when I came in. It was inevitable.

It seems that WPC had a dependably positive effect on some of the women consistently throughout the semester.

W.H. of fall 2013 said:

Team building is great because you are not alone. But it's finding the right people to connect with. I was affected emotionally because I dealt with my weight for so long to be encouraged makes me feel like they want to see me reach my goals. Being part of WPC made me feel wanted. It was fun to see how everyone changed and grew by the end of the semester.

S.P. of spring 2013 said:

I was emotionally affected by the team building and support. I felt accepted by everyone in the class. I looked forward to going to class every week because of the friendly atmosphere.

H.M. of fall 2013 stated:

I see people from other classes and we don't even say hi. When I see people from this class we hug and high five and say hi. It was a team like a family. I could tell a difference between this class and the other classes I have taken.

Again, here is evidence of the possible effects of Social Identity Theory.

P.C. of fall 2013 said:

One thing that sticks out is the bond that we have in this class. It's like no other college experience I have ever had. I probably won't remember people's names in my other classes because they are impersonal. I knew everyone's name and face

in this class.

M.G. of fall 2012 said:

Not only did I make friends I never would have made otherwise, it also helped strengthen the bond I have with some of my own sorority sisters. Emotionally the support of others with no judgment was definitely an impact on my overall success. Also I have not had that much support and team atmosphere since leaving the class. The closest support after it was an online group of women where we did a 30 day challenge, but even then I was not as motivated because the accountability was not there.

D.M. of fall 2103 said:

I learned that not all women can find a balance, that health is a huge struggle. I Witnessed girls go from being very quiet and clueless, to talkative and learning the differences in what's a healthy lifestyle and what is not. I am grateful for taking that class, because it not only helped me connect with some girls and help them, but they also helped me. I was held accountable for meeting up to work out when I said I would, and to help when needed, and they listened and helped motivate me when I wanted to quit. You learn about your fellow college girls and appreciate the struggles we all go through , cause we are not alone, we 're all facing them. She added:

The class did make me feel like I was doing something. Every school day walking in the room you couldn't help but smile. We were all doing the same things, facing the same challenges. We all helped one another, and I know everyone wanted to make sure that the people around us were comfortable. I always felt

welcomed and like those girls were friends. Walking on campus we would always nod if we saw one another. We didn't have to talk, sometimes we would, but it was like an understanding that we were saying hi. I enjoyed walking on campus and seeing the girls. You truly felt like you belonged.

These last comments reflect a strong effect that has continuously been shown in this data of the profound influence that team building/collaboration/community/building can have on some young women's lives. Being in a comfortable workout situation and frame of mind seems to be highly beneficial perhaps especially at this stage of life. Recent research has shown that college women report higher levels of stress consistently throughout their academic careers than do college men (Spring 2013 National College Health Assessment). The social support aspect of WPC may be one of its most important beneficial factors.

Positive Motivation. This overarching theme was made up of the subcategories of motivation, confidence and expansive positive effect. Participants comments were included if they cited motivation, encouragement, enthusiasm, influencing others, confidence, personal life, mood, uplifting, positive, no judgment, no pressure, etc. The interviews produced many examples of this theme. For instance:

I.O. of spring 2012 stated:

The team building and social support of the class was what I enjoyed the most. The motivation and encouragement we received in the class set the tone for the day. I took the class in the morning so it cleared my mind and prepared me for the rest of the day.”

T.C. of fall 2012 said:

Rise up and attack the day with enthusiasm. In my opinion, it is not always a choice to like or to dislike something. But you can always choose to be enthusiastic about something. No, I don't like getting up at 5 am to go to the gym but once I get there I make the choice to be enthusiastic about it and to make the best of it and every situation I face in life. I don't always succeed in my enthusiasm, but it's always in the back of my mind.

In this comment can be seen the effect of the learning of metacognition techniques that were very prominent in the class.

H.M. of fall 2013 stated:

I got my husband on track now and he eats salads. It helped my spouse and he wasn't a part of the class.

Here one can see the expansive positive effect of WPC.

C.C. of fall 2013 said:

The class helped us build more confidence in ourselves. It helped us to always have it together it was a source of constant support. I can do it because she can do it.....

The rise in the level of confidence of these young women was an oft repeated response to the interview questions. The ongoing effect of the class seemed to enhance the student's self-efficacy perceptions.

M.A. of fall 2013 said:

You were always motivating and positive and made us feel welcome. It was a

good environment to come into. It made you excited to go.

The atmosphere and culture of WPC seemed to also raise motivation levels among the young women.

D.M. of fall 2013 said:

The team-building affected my personal life in a way I had not realized it would have. I have always felt comfortable going to the gym, I loved eating healthy, and I never had a fear of being healthy. In class I learned the fears that my class had. Girls admitted they were nervous going to the gym, they were insecure about walking in and the judgment passed on them. A class mate confided in me and started to work out with me after the semester was over because she trusted me and was confident in telling me her fears and letting me help her with exercises. You truly learn how to look beyond the surface of these girls that you walk by in passing and say "Hi". I learned how to help, and I learned how to be a cheerleader not only for myself, but for others.

The way that relationships were built in the class appears to have enabled deeper friendships to develop in this class setting than perhaps in others. Some of the issues that these young women were able to collaborate on to deal with might be rare in other academic venues. These students seem to be able to build bonds that were much stronger and trusting than the potentially superficial ones that often may be formed in university classes.

L.P. of fall 2012 said:

Coming to WPC uplifted me no matter what mood I was in. It not only gave me a sense of belonging but it also made me feel as if I was making a difference in the

lives of the women.

A.D. of spring 2012 said:

It was an uplifting and positive good way to start my day. I left in a good mood because I had worked out with my sisters in the class. It was positive and not just sitting listening to a lecture. It was like a happy pill and I missed it when it was over.

And she added:

It was a sense of a no judgment no pressure positive social environment.

The issue of being judged and put under pressure as a woman also has come up repeatedly in this data.

R.L. of spring 2014 said:

A lot of the time I was going through a lot. I had anxiety and depression and having this group was very helpful. When I was in class it was all positive in the room consistently with the girls. This helped me to be more hopeful and positive. When class ended I got down afterwards because I didn't have that regular positivity after the class was gone. I didn't realize until it was over what the class brought to me with its team work and positivity. I miss it a lot.

The class appeared to have had positive mental health effects on some of the women who may have been suffering from them. Again, the positive/collaborative/social support nature of WPC may have been a large part of this beneficial outcome. In general, the young women registered a higher level of motivation that seemed to stem from the positive atmosphere of WPC. It seemed to have a definite impact on their overall well-being.

Transformational Empowerment. This last overarching theme is viewed by the author as the most important outcome of the WPC class. It seems that many of the women went away from the class with higher levels of competence, motivation, self-concept and self-efficacy than they had previously. They also seemed to be equipped with a greater sense of empowerment than before. Comments were included that spoke to transitioning, independence, confidence, consistency, good relationships, future, awareness, bigger picture, intentional, leader, self-understanding, tools, permanence, feminists, lifestyle, long-term effects, different perspective, evolving, eating habits, coping, conquering fear, empowerment and transformational. For example:

I.G. of fall 2013 stated:

My participation in WPC affected me by creating a desire to want to eat healthy and exercise. It transitioned my frame of mind from “I have to” to “I want to”. Ever since I began WPC which is nearly a year now, I have stuck to strength training on Monday, Wednesday and Friday and some type of cardio on Tuesday, Thursday and Saturday.

The all-woman aspect of WPC did have an impact on my life. The phrase “not just the gym and the kitchen” is something that I will always remember. Being strong as a woman allows me to be independent, to carry my own suitcase up the stairs, to go kayaking and rock climbing with the guys. It’s not about just being skinny and looking pretty anymore. I love the team-building aspect and emotional support WPC offered! It gave me the confidence to participate in some group fitness classes at the Y. It even encouraged me to reach out to those new to the class, as I remembered how intimidating joining new things, especially fitness

classes, can be!

I.O. of spring 2012 said:

Women's Personal Conditioning affected me in several different ways, not only physically but mentally as well. I had many unhealthy behaviors before I enrolled in the class. Before WPC, I still had an "I have time" type of attitude. I still thought I could do what I wanted for a little while longer, not thinking about how everything was slowly taking a toll on my mind and body but the class changed that.

M.W. of spring 2014 stated:

I feel more confident going to the gym now and I am able to help others more. I know how to eat after being in this class and I apply it better to my life.

B.F. of fall 2012 said:

I am consistent now working out 2 to 3 times per week. I have a membership to Gold's Gym. I find it fun now. I know how important it is to be healthy mentally and emotionally with good relationships. I hope to continue to live this; I know how the other way can mess up your future.

M.P. of fall 2013 stated:

Being 100% consistent in my physical activity is still a struggle but, I am doing so much better than I was doing before. I try to get a good aerobic workout in three times a week and an anaerobic workout in three times a week as well.

S.G. spring of 2012 said:

Because of the WPC class, I became more aware of what I was putting into my body. I wish I could say that all my habits have changed since taking the course,

but I do have a sweet tooth that sometimes has a mind of its own. I have however, become more aware of my eating habits, not skipping meals and trying to at least get out to walk 30 min a day if I'm not able to make it to the gym.

F.E. of spring 2013 said:

I like working out by myself but this was a kick start to help me to do more. It really helped me in the bigger picture. I got a lot more than I was expecting. I had a gym membership that I stopped using but now that I am in this mode from the class, I think I will be using it all the time. I also think about what I am eating more than I used to. I just used to what I wanted to. I also am drinking a lot more water than soda, it used to be the other way around.

L.P. of fall 2012 said:

As a woman I feel as though we should uplift one another and as "Driven Women" we strived every day to push one another to get better. I have taken this into my everyday life to not only push myself, but to push women around me as well.

I.W. of spring 2014 said:

The class made me think more about the way I was living. I am trying to be more intentional in my decisions as far as my diet goes. I never lifted weights before but now I feel comfortable to go to the gym and do that. Before the class I only did cardio. I think being fit helps you have better confidence. It makes you feel better and look better. I think it helped a lot to be around other women and have work out buddies outside of my sorority sisters and family. It makes me be a leader and have more accountability. It makes people depend on me as well. She

added: It has been different. I even worked out while I was on vacation. I am still able to do cardio and I am trying to do strength as well. I work 10 hours a day so that makes it hard. I try to carry water jugs or bags at work. I try to be more active if I can. The class helped me to organize my time better. I valued the information about the hormonal changes that I go through and it helps me to manage my actions. It helps me to understand myself more. I used to blame it on the other people and now I know that it is at least half my fault. I have seen myself getting healthier and I can see how my older sister is eating and she thinks that she is eating healthy but she isn't. She doesn't have the knowledge that I have. I notice how my friends want to look like celebrities that are "skinny fat" but I don't want to look like that. I want to be strong and healthy. This class has given me that. I think that I will always be able to stay healthy even as I age because I have the tools to do so. I got my eating under control first and then I made sure that I slept 8 hours a night and I made myself get to the gym.

T.W. of spring 2014 said:

I feel better about myself knowing I don't have to look a certain way for society to accept me for the way I look and they cannot control my eating. I learned why we want the comfort food versus the good food our bodies need. I still to this day am working on getting back in shape and eating the good food I used to.

C.W. of spring 2014 said:

The changes that have been made have been permanently installed in my brain. I am always aware of things now.

C.C. of fall 2013 said:

Until this class I was not into weights. I had had a bad experience becoming big and buff from earlier weightlifting. This class helped me to get a better understanding of how to avoid this and still be fit. I can feel it when I don't go. I try now to encourage others not to sit around.

F.L. of spring 2013 said:

This class inspired me by pushing me to be a feminist and to care more about women.

We have this glass ceiling to break through. Lifting weights in class has done wonderful things for me. The class has helped me physically and mentally and has helped me to be in good relationships and to get out of bad patterns. Learning to eat three meals a day that are balanced and not snacking has helped me a lot. I think it should be a requirement for women to take this class. We are not prepared for this (college). I had great teachers in high school but I was never pushed. I was not prepared for college. It's like jumping into a whole new world. You feel alone and inferior and you don't know how to get around. You lose sight and you don't have any grounding. You think I am gonna go drink and party and do what I want to do. This shouldn't be your lifestyle. This class reminded me that college is more than just a party. You need to treat yourself good and take care of yourself. You forget that there are long-term effects to your impulse reactions. We get caught up in I want this and I want that. We need to have a purpose in life and remember its simplicity. I want to make a difference in this world and I couldn't do it without the guidance I have had.

A.O. of fall 2012 said:

The class gave me a different perspective on what being healthy means. I thought it was just about the physical aspect but then I learned that there is a lot more to it. It is about the mental and spiritual aspects as well. It gave me the scientific reasoning behind what is going on with my body as a woman. It really helped me to be in more control of my body and my mind. It made me more aware. It helped me to manage the situation better. It made me think differently about food. The candy and cokes or the fast food. It helped me to control the cravings more. It helped me realize that there are a lot of aspects to being healthy. It's not just a physical thing. You get your health and wellness from the inside out. I wish that this class was mandatory for women. I think in our society there are women who have it all and that there are women that are lost. I think it would help them to value themselves more. I think it could really affect women in a big way. It is transformational. I think if they are more aware of the choices they are making it can be life changing.

M.G. of fall 2012 said:

At the end of the year I had lost 4-6 inches off every area of my body. I also felt great emotionally as you could not leave Coach's class without being in a good mood. I also felt myself questioning my food choices so overall I was eating better. Which is the part I have trouble with, as I love sweets and bread!!

P.C. of fall 2013 stated after being a member of the class, helping to form the Women's Fitness Club and becoming a fitness instructor at the recreation center:

I am evolving through the class, the club and now I am an instructor.

T.C. of fall of 2012 said:

After my participation in WPC, I began to realize the importance of taking care of my body, and watching what I put into it. During and shortly after the class I made some immediate changes. Unfortunately, they were temporary and I slowly slipped back into my old habits, but the things I learned always echoed in my head when I'd decide to sleep in rather than go to the gym. Or fail to choose the healthiest food option. Once I got back into the swing of things- probably a year or so later, I think about my experience in WPC all the time. I remember how certain foods affect my brain as well as my body. One thing that I always remember is the focus on the whole woman, not just the gym and the kitchen. It's a mental and physical lifestyle change that has taught me to take care of myself, and also care for other women and their wellness. Since I have gotten my personal and professional life on track, and changed my activity and eating habits, I have lost 20 pounds. And feel better than I have in a very long time!

Again, the element of delayed effect that is a tenet of Social Cognitive Theory is illustrated here.

D.W. of spring 2014 said:

Women's Personal Conditioning taught me more about my mental and emotional health than anything else. It made me aware of habits and unhealthy behaviors that I have as a woman that I have been working to change ever since I learned about them. I often forget to keep a positive attitude towards the failures in my life and I feel like the class taught me some pretty crucial tips to remind myself and motivate myself to look forward and positive instead of towards the past and what I cannot change. This course, not really during, but after, impacts your life

more than you really notice. I learned to cope with issues a little easier than before simply with the lessons I learned about myself and the way we, as women are made-up. I did not know that simply because of the way we are made, that we have to try a little harder than men to live a happy and less stressful life. I learned during your course Coach to strengthen my view of myself and to give myself a little break; to strive harder to think of myself in a positive manner and to love myself a little more every day.

Again, here we see the delayed learning effect outlined in Social Cognitive Theory.

D.M. of fall 2013 said:

A month before the class, I had started looking into serving sizes and reading labels. In Women's Personal Conditioning we learned about the sugars in foods, the carbohydrates, sodium. The stuff we put in our body creates our body. I've kept that in my lifestyle outside of class with grocery shopping, preparing meals and even researching while at restaurants what the more healthy choice is.

G.W. of fall 2013 stated:

I have always been active, but this class changed my perspective on it and instructed me on how to work out in the right ways. I learned so much in this class, not just about working out, but also about the whole woman. What has changed most is how I view my body and my womanhood. This has sculpted my emotional/mental view on my life, the way I eat and the way I exercise. My results from this class were all positive. The obvious things are my new eating habits and my exercise patterns. What stood out to me in this class, and has really changed me for the better, is the P.E. – positive

enthusiasm. Each day in class we attempted to raise each other spirits. I now strive to do that in my everyday life with everyone I encounter. This simple act of kindness changes my attitude and raises my spirits as I hope it does for the receiver as well. This small boost of confidence has made me all the more proud of my strong body and spirit.

Learning about nutrition and how it affected my body chemically and physically has definitely sculpted the way I eat now. I take in a lot less sugar and refined foods. Now I strive to fill my meals with lean meats, lots of vegetables, fruits, and plenty of water.

Instead of grabbing a coke and a bag of chips as a snack, I typically reach for carrots or a handful of nuts. It keeps me fuller and energized longer. Knowing that these choices are healthy for me makes it all the more appetizing. During the class I realized that even though I was thin, I wasn't fit. Now I strive to be strong, not to be thin. Seeing that difference was a very important thing for me. I am more active now and I work out a lot more. I'm getting stronger and leaner by the day. The only thing I would like to add is my deepest regret is that there are not more advanced levels of this class. I wish I could take it every semester or at least be enrolled in a program that is related. I would recommend this class to anyone and everyone. This course helped me conquer the fear of going to the gym where so many people are working out. It destroyed my embarrassment and empowered me as a woman to be healthy and strong.

The foregoing Transformational Empowerment theme comments illuminate the multiple effects of the class on multiple levels and in different life arenas that WPC has on some

young women. The effects are complex and holistic and match well with the sensibilities, aptitudes and strengths of the young female college students in this case study. The story they have told of their lived experience is engaging, vibrant and compelling. Their responses also show that the effects have had a tendency to endure over time which may be the most important factor of all. Health promotion is about the future and that is what may be seen here. These young women's lives have been changed and it is likely that the lives of their future children have been changed as well.

Cumulative Effects. The cumulative effects of the class were many. This started with the four original overarching themes. The feelings that the young women had about issues within the female paradigm seemed to intensify over time. The gender-specific preference from the classes was once again the dominant subcategory in this overarching theme. The lived experience of at least some young women seems to propel them toward fitness environments that are exclusively female. They expressed a high level of comfort in these types of environments for the purpose of exercising. There may be many reasons behind this but one that seems to be supported in the data is that they don't want to be on display in this venue. The added perceived pressure for 'skinny' appearance in cheerleading dancing etc. came out more in the interviews. They seem to want to be able to relax and be sweaty with messy hair if they feel like it in this life circumstance. They also expressed in both the focus groups and the in-depth interviews the positive unifying effects of the all-women environment. Certain rivalries and competitions were avoided by the presence of all females. Further, the establishment of closer and more lasting friendships was denoted. It was expressed well with 'no judgment, no makeup'.

The importance to the study of the whole woman was clearly documented in both studies. The young women were able to grasp how different bodily systems and levels of consciousness interacted and affected one another. It helped them to be able to better understand themselves and the feelings they were having at different points of time.

The element of gender differences was another one that resonated strongly from the focus groups through the in-depth interviews. The students seemed to be able to understand males better on a chemical level. This seemed to allow them to comprehend some of their own behaviors better as well. It seemed to have an equipping effect that allowed the young women to become more analytical in assessing the actions of men.

The influence of sororities and their optimal role in the WPC class was a subject that came out more strongly with the passage of time. The focus groups simply showed that there seemed to be a mutually positive relationship between the sororities and WPC. In the interviews there was quite a divergence of opinion as to whether it was more beneficial to have a mixture of different chapters in a class or try to create WPC classes that are made up of only a single chapter. The slight majority of respondents seemed to favor a mixture of chapters in a class. The subject did seem to have somewhat of an emotional overtone in how it was expressed. It allowed an insight into the relationships and meaning making within the sorority world.

The health impact that a woman can have through metabolic imprinting on her future children was reported slightly more in the interviews. It still did not seem to be a concern that was at the top of their minds but it did seem to be having a slightly growing influence.

Healthy lifestyle change was another theme that grew in strength from the focus groups through the in-depth interviews. The subject of eating and nutrition was the part of this theme that resonated most strongly. This is obviously a very big issue for young women. They seemed to be able again, to understand themselves on a deeper level in this area. They were able to connect their emotions to their eating behavior which seemed to be helpful to them in learning to manage and control something that had seemed to be unmanageable and uncontrollable before. The phrase ‘women eat their emotions’ was a telling one. By the in-depth interviews some of the new nutrition patterns seemed to have become ingrained.

A major factor into this nutritional lifestyle change seemed to be the use of vials filled with material that looked like sugar and fat and represented the amounts of those in many processed foods. The impactful nature of these vials was mentioned often both during the focus groups and the interviews. It seems like the concrete, irrefutable and even shocking nature of this demonstration made a big impression on their memories.

The other related understanding that seemed to grow from the focus groups to the interviews was the importance of strength training for women. Many of them seemed to have started during the class and continued afterward. There also seemed to be a growing understanding garnered from WPC that a balanced, consistent, moderate approach to working out is a positive way to go about it. There seemed to be a realization that there could be significant fitness gains without much pain.

There seemed to be more overt acknowledgement of the role of metacognition in the focus groups than were in their in-depth interviews. It isn't clear whether

metacognition had now become an embedded way of life by the time of the interviews and this was not consciously acknowledged anymore or whether it was no longer seen as important as it had been immediately after the class when the focus groups were recorded.

The difference in activity levels between high school and college seemed to be more on their minds during the focus groups. That may have been because they were closer in time at that point than they were during the interviews.

The cohesion through positive community overarching theme certainly had a long term cumulative effect. It was important in the focus group interviews but seemed to gain importance with time. It was pointed out that after the class was over and alums from the same class would see each other that there was a special bond in place that was different than other classes. There also was a greater appreciation of the importance of social support over time. Moving away from the class in time there seemed to be a greater sense of the uniqueness of the lived experience of WPC. It was pointed out that though diverse, the members of each class became like a family. The fact that each class had its own team name seemed to promote this sense of community and camaraderie.

The overarching theme of positive motivation also seemed to grow stronger in perceived effect over time. There were many comments in the interviews about how the positive atmosphere was conducive to their accomplishments not only in the class but elsewhere as well. It seemed to help them set themselves up for a positive attitude throughout their day especially if they had WPC in the morning. It also set the tone for building deeper, more trusting relationships with their classmates that proved beneficial.

Some expressed that they realized after the class that the positive atmosphere had helped them cope with anxiety and depression and that following the class they noticed the difference WPC had made.

The transformational empowerment overarching theme arose out of the original questions and data as a whole growing through the in-depth interviews. Over time the effects of WPC seem to have been magnified for some of the young women. It seemed that it took time in many cases for the lessons of WPC to fully sink in.

Resultantly, the transformational empowerment overarching theme emerged from the in-depth interviews forcefully. It was a very important cumulative effect of the WPC class. There seemed to be a switch from extrinsic to intrinsic motivation when it came to exercise and nutrition. They changed from 'having to, to wanting to'. This has allowed autonomous continuity of the attitudes and habits started in the class. It also gave them a greater sense of the importance of being strong and healthy and seemed to alleviate some of the objectification pressure.

The young women seemed to get a clearer picture of what they needed to do to stay healthy and the will to make it happen. They now saw to a greater degree the importance of mental as well as physical health and the pivotal role that good relationships played in supporting them. They also became more self-aware and metacognitive, especially about their eating habits. The women have also been empowered with knowledge of the importance of strength training for females and how to create physical exertion in work settings that replicate it. For example, one spoke of looking for opportunities during her 10 hour work days to physically move heavy objects

around the office. They also reflected the empowerment that knowledge of their own hormonal states and fluctuations gave them in managing their lives better.

Some in the class were transformed in a feminist direction to care more about women in general. WPC also seemed to have a sobering effect by helping them to see the more important things in life and devaluing others that are more extraneous like partying etc. It seemed to help them value themselves more as women and strive to find a significant purpose in life. A telling expression that one used to express the holistic effect was the realization that we 'get our health from the inside out'.

WPC seemed to have the effect of lowering some of the women's perfectionistic expectations of themselves and helped them to relax and be happier. It also seemed to teach them to look forward positively with hope to the future rather than looking back to mistakes of the past and what could not be changed with regret. It seemed to help them value and love themselves more. Through the attitudes, collaboration, community and positivity of WPC some of them also seemed to become motivated to also value and love more those around them. They now saw more the need for and mutual benefit of raising the spirits of these people in their lives outside of WPC. They were able to put all of the holistic elements of the class together to create a self-sustaining, synergistic, positively enthusiastic lifestyle.

Class Outgrowths. From the establishment of the WPC class several other related outgrowths have begun to emerge. These have taken effect after many, many phone conversations, much email correspondence and many in-person meetings with various campus entities and personnel. In fall of 2012 a presentation was given at the

state convention of the affiliated professional organization. It dealt with a program to recruit incoming freshmen students who were former athletes, dancers etc. The rationale was that as recent athletes they would be used to team-oriented approaches and would have recent fitness experiences and habits. Another attempt to recruit freshmen class members came about as a result of an effort to collaborate with the University Studies department to create a learning community between a freshman orientation class and WPC for fall of 2014. The idea was that an all-freshman women class would meet earlier in the afternoon and then take WPC directly following it later in the afternoon. Through inexplicable circumstances no students ended up scheduled for the classes so the sections were eventually cancelled.

Since the inception of the idea for the program there has been interaction with sororities. There have been many educational presentations given during chapter meetings as well as other meetings. Beginning in 2013 there have been actions taken to create wellness programs for some of the sororities. Many of the WPC classes have been largely populated by Greek women over the years of its existence.

Out of the WPC class from fall 2013 emerged organically a Women's Fitness Club. Members of the class decided that they wanted to spend more time on their fitness/wellness so of their own accord they formed the club. The author became its advisor. There were 20-30 members listed but the number that actually attended the meetings/workouts were always small, they usually only consisted of a few members. It seemed that the inclination of some women from the class to continue working out as a group had difficulty when faced with their continuously hectic schedules. It seemed like

having it be a part of their regular schedule and having credit be attached was important for most of them to be able to make it happen within their busy daily lives.

CHAPTER V: DISCUSSION AND CONCLUSIONS

“Mentioned frequently were the aspirations for offering different experiences for students in non-traditional activities and changing the face of PE programming to include alternative activities and practices.”

(McCullick, Lux, Belcher & Davies, 2011, p.11)

The meanings that were made by the women in the WPC class show that there may be good reason to offer a new choice on college campuses. This would entail a personal conditioning class that was based on female values and preferences. This class would have a female dominant class population and make use of knowledge gained about the female paradigm. It would also be collaborative and emphasized the holistic nature of women’s wellness. The timing for a new option such as this may be good. For example, the above quote from *A Portrait of the PETE Major: Retouched for the Early Twenty-First Century* aligns with the findings of this study. It seems that some present and future physical education teachers may be looking for new non-traditional and alternative approaches to PE pedagogy. This may open the door of possibility to innovative, holistic, wellness-oriented curricular models like WPC.

Theoretical Relationships

As noted in the focus group and in-depth interviews the data are replete with examples of the influence of Social Cognitive Theory (SCT). That learning was taking place in a social context was obvious (Denler, Wolters & Benzon, 2012). One of the strongest positive characteristics of the class was its social support aspect. WPC seemed

to be a continuous interchange between environmental, mental and thus behavioral elements. As both the focus groups and in-depth interviews showed, the young women were able to influence their self-behavior and life circumstances in goal-oriented ways. Another aspect of SCT that was showcased in the in-depth interviews was that learning can take place but not show as behavior- change until later. The students demonstrated that they learned by seeing behaviors modeled and then seeing consequences. They also displayed outcome expectations which showed their beliefs about what results will occur if certain behaviors are performed. This combined with self-efficacy which many displayed a growth in shows a person's ability to envision them results that they desire and build plans to achieve them. This too was showcased by the comments, especially those in the in-depth interviews. Finally SCT can produce the phenomenon of self-regulation in which participants can learn to manage and order their thinking, behaviors and lifestyles (Denler, Wolters & Benzon, 2012). This was illustrated in the transformational empowerment overarching theme robustly.

The influence of Social Identity Theory was also evident in the data. The classes (or teams) helped the students shape their thinking through internalizing a sense of self. The young women eventually didn't see their class mates as others; they saw them as us (Haslam, Jetten, Postmes & Haslam, 2009). The teams the students belonged to became a source of personal security, social support, mutual bonding, higher order learning and emotional collaboration. The author took team pictures with their permission and posted them on a social media page. This seemed to strengthen and reinforce the social identity of each class. This community approach seemed to give the young women a kind of

agency that was not theirs acting alone. WPC gave them a sense of belonging, purpose and home territory that seemed to be psychologically helpful. The team-oriented approach seemed to benefit their self-concept and sense of worth (Haslam, Jetten, Postmes & Haslam, 2009). Research from earlier studies (Laverie, 1998) revealed that student's motivation to take part in aerobics classes was tied through social interaction to developing a social identity and the positive emotions that come from the social support etc. that are natural results of the bonding. This certainly seemed to be true of the WPC classes.

Relationship to Previous Literature

This study corroborated and extended the research done previously. It fit with the adolescent physical activity patterns and with the barriers and outcomes. The young women in this sample certainly reflected a stressful lifestyle during their college years. WPC was reported often to have a stress lowering effect. The impacts of group cohesion on the positive outcomes of WPC were clearly borne out. A sense of eudaimonic understanding and accomplishment was present in the in-depth interviews. The interaction with sororities was evident. This program fit into the overall picture of wellness programs in college settings. It was unique to the author's knowledge as the only college women's wellness program on a large coeducational campus in the United States. The author found out through pilot testing that web-based physical activity promotion was effective. Students were sent a daily email prompt or encouragement message and the practice was continued at student request.

The WPC class clearly fulfilled the tenets of previous student success/retention research with regard to students feeling welcomed, engaged and being made part of a positive group. It also matched up with the school-age program preferences and the Curves phenomenon.

Implications for College Women's Wellness Programs

With young women's post-college physical activity patterns being deficient and the rate of required physical education at 4-year universities being at an all-time low an innovative program like this might be apropos and helpful. In this case study at least there seemed to be a significant amount of college women for whom WPC was a preferential physical education option. It seemed to fit not only physically but also mentally and emotionally as well. Possibly a higher percentage of young women might become interested in holistic physical activity/nutrition if offered this collaborative/community-based model. Even though Title IX removed gender segregation in the U.S. the equal access physical education curricular model has not lowered inequalities ideologically that reinforce larger patterns of patriarchal differentiation (Nilges, 1998). Also, this one-size-fits-all approach has put female students into environments that many of them may feel uncomfortable in. Much of the history of the standard PE that these girls and women were inserted into in 1972 traces back to preparation for war. This has put female students in class scenarios that often are very militaristic. Military exercises, basic training techniques and maneuvers are primary models for many fitness training sessions. Resultantly, the scenario that many girls and women experience in standard PE is basically like a sergeant ordering troops within a hierarchical chain of command. There

are a certain percentage of females who find this curricular model fulfilling. There is another percentage who might find it acceptable occasionally. For many however, this model may represent a major catalyst of stressful dissonance between their inner sense of self and their outer experience (Cowlin, 2002). Therefore, it is possible that females as young as middle school might be benefitted by being allowed to be more in their comfort zone in class. One expressed this stress reducing dimension of a same-sex class by pointing out that in girls-only P.E. you wouldn't have men looking at you (Olafson, 2002). The case for offering a curricular space where young females from junior high through college could choose to have a female population dominant/female-centered P.E. option was probably put best once again by the original expert and pioneer in this area, Ann Cowlin formerly of Yale University:

Most current models of fitness programs are based on male paradigms. Even where women are involved they are participating in activities originally based on male-centered values and philosophies. Although some women have adapted to this male-based system some more easily than others, most have not.

We need to step back and view women as a whole population, not just the women currently operating within the sport and fitness world. In so doing we may find that we can design fitness programs that reach and benefit many more women than are currently participating and we may find new ways of presenting fitness programs that better meet women's needs.

(Cowlin, 2002, Preface)

With the opportunities afforded by the optimal brain development stage that these young women are in and the stakes for the influence of metabolic imprinting on the future population the motivation to take action in this area is urgent. This could represent an effective new option for the crucial future health influencing gender at the crucial time of their lives. The practices and habits formed here will have a ripple effect down the generations. This curricular model may make it more possible to make sure that those reverberations are profoundly positive for the American future.

Recommendations for Further Research

Since this qualitative research was carried out with mostly Euro-American participants a similar study with more ethnic diversity would be advisable. Also, quantitative designs that surveyed college women widely on their wellness attitudes and preferences would add to this body of knowledge. Another possibility for future studies might be to compare students from women's colleges and coed colleges taking the same course and see if there is a difference in physical activity levels. Also, further research is needed to distinguish specific causes such as impact of instructor versus environment of the class etc. The effect of WPC on retention/student success is also recommended for future studies.

An effort was made in 2014 to do a qualitative survey study of the differences that students perceived of their experiences in standard Personal Conditioning and WPC. Surveys were emailed to hundreds of former standard Personal Conditioning students and

all of the WPC students. The results will be addressed at the end of this paper. First though, three students took both standard Personal Conditioning and WPC. Two out of the three agreed to compare their experiences. Their comments on the differences between the two classes follow:

T. F. of spring 2013 said:

The standard Personal Conditioning class was focused on working out and just doing it. It built no understanding of the how's and whys. Women and guys are different, I was wanting to get stronger and it is embarrassing to be around guys. It is less intimidating with women. Because men and women are so different guys struggles are very different from women's. Their goals and all are different.

I understand why you have this class. Also, in standard Personal Conditioning there was no nutrition instruction. We would sometimes stop and go over lifting technique. It was like a normal class where you just listened to the teacher lecture and not the other students. With WPC there was a big difference in that we built a sense of community. With standard Personal Conditioning you just went to class and it was no different than other classes. WPC was different, we learned to put our mind into it and approach things with positivity. You don't get that positive motivation from other classes so yes, WPC was different. I am now doing

personal conditioning training and have an understanding of how to start people off like we did in WPC with resistance bands etc. WPC was helpful for me and it has now allowed me to progress to the point where I am helpful to others. WPC provided good information to teach to my clients and it has prompted me to leave the sugary foods behind.

T.C. of fall 2012 said:

During my time at MTSU, I also took the regular personal conditioning class. It was coed. I have been active most of my life so I had no problem working out or running. However, there was no structure to the course. Most days we ran laps and for a woman (as I learned in WPC) cardio isn't enough. Weight training is important too! I did benefit physically from the class, but not mentally. Also, since it was co-ed some of my classmates were self-conscious about working out in front of guys. The instructor was nice, but other than for his attendance count, he did not care whether we came or not. Coach always cared. And always asked us to give a number rating our feeling about the day on the way in and out of class. He made a point to engage with every student, every day. It made coming to class easier- we had a coach and classmates who wanted to see us, and who we didn't want to let down with our absence. I took other Physical education classes

during my time as well. None of them benefitted me mentally and physically like WPC. Coach took time to plan, and to really teach us about our health, our history, and how everything we do affects our total wellness. We not only learned how to workout but why it was so important. We learned the science behind why stress makes women in particular crave French fries, or candy. We learned that rather than giving into those temptations, that we could go to the gym and get that same feeling. (easier said than done 😊).

The qualitative survey study comparing the two classes became a pilot study because only one female student from standard Personal Conditioning responded despite being offered gift card incentives. It is recommended that a survey comparing female student's perceptions of standard Personal Conditioning and Women's Personal Conditioning be carried out in the future. It might be possible to administer the survey instrument at the end of the semester in class so more responses might be obtained.

One interesting and possibly illustrative comment was garnered from the pilot qualitative survey of student's perceptions of their experiences in standard Personal Conditioning and Women's Personal Conditioning. It came from a male respondent. In light of the data from the young women in this study it may show the difference in meaning making and motivation between some college women and some college men in the physical activity/physical education setting:

I think it [standard Personal Conditioning] has a positive impact on my experience. Seeing hot girls working out while I worked out was enjoyable.

REFERENCES

- ACTs What works in student retention survey* (2010). Public four-year colleges and universities >20% Black four-year. Retrieved from:
<http://www.act.org/research/policymakers/pdf/droptal>
- Allen, E., & Madden, M. (2006). Chilly classrooms for female undergraduates: A question of method? *Journal of Higher Education*, 77 (4), 684-711.
- Astin, A. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25 (4), 297-308.
- Baker, K., Boland, K., & Laffey, J.M. (2006). The health connection at Cedar Crest College. *NASPA Journal*, 43 (3), 446-464.
- Bandura, A. (1986). *Social foundations of thought and action: A social-cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barker, D. (2008). *Nutrition in the womb*. Barker Foundation: Portland, OR.
- Barkley, E. (2010). *Student engagement techniques: A handbook for college faculty*. San Francisco: Jossey-Bass.
- Barkley, E., Cross, P., & Major, C. (2005). *Collaborative learning techniques: A handbook for college faculty*. San Francisco Jossey-Bass.
- Barnett, E. (2011). Validation experiences and persistence among community college students, *Review of Higher Education*, 34 (2), 193-230.
- Becker, C. (2014). Reflections: Body image program. Retrieved from:
<http://www.tridelta.org/thecenter/ourinitiatives/reflectionsbodyimageprogram>
- Bender, M., Escobedo, A., Gormley, J., Nolan, M., Pacheo, R., & Rogers, R, R

- (2007). Student format preferences for physical activities in physical education: to be coed or single gender. (Unpublished master's thesis). California State University, San Bernardino,
- Bird, P.J. (2006). Why does fat deposit on the hips and thighs of women and around the stomachs of men? *Scientific American*, May 15, retrieved from:
<http://www.scientificamerican.com/article.cfm?id=why-does-fat-deposit-on-the-hips>.
- Blakemore, S.J., & Choudhury, S. (2006). Development of the adolescent brain: implications for executive function and social cognition. *Journal of Child Psychology and Psychiatry*, 47, 296-312.
- Boyle, J., Matthew, C.O., Lassitier, J.W. & Ritzler, J.A. (2001). Peer 2 peer: Efficacy of a course -based peer education intervention to increase physical activity among college students. *Journal of American College Health*, 59 (6), 519-529.
- Calfas, K.J., Sallis, J.F., Nichols, J.F., Sarkin, J.A., Johnson, M.F., Caparosa, S., Thompsons, S., Gehrman, C.A., & Alcaraz, J.E. (2000). Project GRAD: two year outcomes of a randomized controlled physical activity intervention among young adults. *American Journal of Preventive Medicine*, 18, 28-37.
- Cardinal, B. (2013) Physical education requirement at 4-year universities at all-time low. EurekaAlert!Jan22013,Retrievedfromhttp://www.eurekaalert.org/pub_releases/2013-01/osu-Per010413.php.
- Cashin, J. R., Presley, C.A., & Meilman, P.W., (1998). Alcohol use in the Greek system: Follow the leader? *Journal of Studies on Alcohol*, 59, 63-70. Center for Living Learning and Leading (2013). Reflections Body Image Program. Retrieved from:
<http://www.tridelta.org/thecenter/ourinitiatives/reflections>

- Clement, J.M., Schmidt, C.A., Bernaix, L.W., Covington, N.K. & Carr, T.R. (2004). Obesity and physical activity for clinical practice. *Journal of the American Academy of Nurse Practitioners*, 16 (7), 291-299.
- Cook, C.J., & Beaven, C. (2013). Salivary testosterone in related to self-selected training load in elite female athletes. *Physiology & Behavior*, 116, 8-12.
- Cook, C.J., Crewther, B.T., & Smith A.A. (2012). Comparison of baseline free testosterone and cortisol concentrations between elite and non-elite athletes: *American Journal of Human Biology*, 24 (6), 856-58.
- Corbett, E., (2012). Preconception health and wellness: Knowledge and attitudes of undergraduate women. *Dissertation Abstracts International*, 72, 66-82.
- Couturier, L. E., Chepko, S., & Coughlin, M.A. (2007). Whose gym is it? Gendered perspectives on middle and secondary school physical education. *The Physical Educator*, 64 (3), 152-158.
- Cowlin, A. F. (2002). *Women's fitness program development*. Champaign, IL: Human Kinetics.
- Creswell. J. (2007). *Qualitative inquiry & research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Creswell, J. (2014). *Research design qualitative, quantitative and mixed-methods approaches 4th ed*. Thousand Oaks, CA: Sage.
- Curtner-Smith, M.D. (1996). The impact of an early field experience on pre-service teacher conceptions of teaching. *Journal of Teaching in Physical Education*, 15, 224-50.
- Daugherty, J.M. (2008). Motivating the adolescent female in physical education:

Relationship between research and practice. Retrieved from: *ProQuest Dissertations and Theses*.

Delta Sigma Theta Sorority (2014). *The total woman mind body and spirit*. Retrieved from: http://www.deltasigmatheta.org/programs_healthy_lifestyle.html

Denler, H., Wolters, C., & Benzon, M. (2012). Social cognitive theory. *Education.com*
Retrieved from:

<http://www.education.com/reference/article/social-cognitive-theory/>

Dodds, P., Placek, J.H., Doollittle S., Pinkham, K.M., Ratcliffe, T.A., & Portman, P.A. (1992). Teacher/Coach recruits: Background profiles, occupational decision factors, and comparisons with recruits into other physical education occupations. *Journal of Teaching in Physical Education*, 11, 161-76.

Dolen, G., Darvishzadeh, A., Huang, K. W., Malenka, R. C. (2013). Social reward requires coordinated activity of nucleus accumbens oxytocin and serotonin. *Nature*, 501, 179-184.

Donaldson, J., Graham. S., Martindill, W., & Bradley, S. (2000). Adult undergraduate students: How do they define their experiences and success? *Journal of Continuing Education*, 48 (2), 2-11.

Endo, J., & Harpel, R. (1982). The effect of student-faculty interaction on students' educational outcomes. *Research in Higher Education*, 16 (2), 115-35.

Engstrom, C., & Tinto, V. (2007). *Pathways to students success: The impact of learning communities on the success of academically under-prepared college students*. Final Report Prepared for the Lumina Foundation for Education. Syracuse: Syracuse University.

- Epstein, D. (2013). *The sports gene*. New York: Current.
- Estes, S. G. (2006). *Kinesiology in the postmodern world*. Dubuque, IA: Kendall/Hunt.
- Kowalski, K.C., Mack, D.E., Wilson, P.M., & Crocker, P.R. (2012). Women's health-enhancing physical activity and eudaimonic well-being. *Research Quarterly for Exercise and Sport*, 8 (3), 451-463.
- Fabes, R.A., Pahlke, E., Martin, C.L. & Hanish, L.D. (2013). Gender-segregated schooling and gender stereotyping. *Educational Policy*, June 26, 0895904813492382
<http://dx.doi.org/10.1080/03055698.2012.760442>
- Ferrara, C.M. (2009). The college experience: physical activity, nutrition, and implications for intervention and future research. *Journal of Exercise Physiology*, 12, 23-34.
- Fischer, M. (2007). Settling into campus life: Differences by race/ethnicity in college involvement and outcomes. *Journal of Higher Education*, 78 (2), 125-61.
- Friedlander, J. (1980). Are college support programs and services reaching high-risk students? *Journal of College Student Personnel*, 21 (1), 23-28.
- Fredrickson, B., Cole, S. W. (2013). Happiness: different kinds cause human cells to respond in healthy, unhealthy ways. July 29, *The University of North Carolina at Chapel Hill*, Retrieved from:
<http://unc.edu/campus-updates.happiness-different-kinds>
- Gibbons, S., L. (2014). Relatedness-supportive learning environment for girls in physical education. *LEARNING Landscapes*, 7 (2), 139-150.
- Girz, L. (2013). Women fret more over weight gain in college. Guys seem okay with the

extra pounds, study finds. Healthfinder.gov Retrieved from:

<http://healthfinder.gov>

- Gloria, A., & Kurpius, S. (2001). Influences of self-beliefs, social support, and comfort in the university environment on the academic nonpersistence decisions of American Indian undergraduates. *Cultural Diversity and Ethnic Minority Psychology, 7* (1), 88-102.
- Gloria, A., Kurpius, S., Hamilton, K., & Wilson, M. (1999). African-American students' persistence at a predominately white university: Influences of social support, university comfort, and self beliefs. *Journal of College Student Development, 40* (3), 257-268.
- Gooren, L. (2008). Olympic Sports and Transsexuals. *Asian Journal of Andrology, 10* (3) 427-32.
- Gu, X., Solmon, M.A., Zhang, T., & Xiang, P. (2011). Group cohesion, achievement motivation, and motivational outcomes among female college students. *Journal of Applied Sport Psychology, 23*, 175-188.
- Grieger, J.A., Grzeskowiak, L.E., & Clifton, V.L. (2014). Preconception dietary patterns in human pregnancies are associated with preterm delivery. *Journal of Nutrition*, first published online April 30, doi 10.3945/jn.114.19068.
- Han, J.L., Dinger, M.K., Hull, H.R., Randall, N. B., Heesch, K.C., & Fields, D. A. (2008). Changes in women's physical activity during the transition to college. *American Journal of Health Education, 39* (4), 194-199.
- Harris, B. (2006). The importance of creating a sense of community. *Journal of College Student Retention: Research, Theory and Practice, 8* (1), 83-105.
- Haslam, S.A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social identity, health and

well-being: An emerging agenda for applied psychology. *Applied Psychology*, 58 (1), 1-23.

Henriksen, T., Haugen, G., Bollerslev, J., Kolset, S., O., Drevon, C., A. Iversen, P., O., & Clausen, T. (2005). Fetal nutrition and future health. *Tidsskr Nor Laegeforen*, 125 (4), 442-444.

Hu, L., Motl, R.W., McAuley, E. & Konopack, J.F., (2007). Effects of self-efficacy on Physical activity enjoyment in college-aged women. *International Journal of Behavioral Medicine*, 14, 92-96.

Hutchinson, G.E. (1993). Prospective teachers' perspectives on teaching physical education: An Interview study on the recruitment phase of teacher socialization. *Journal of Physical Education*, 15, 205-23.

Jay, M. (2012). *The defining decade*. New York: Hachette Book Group.

Jung, M.A., Bray, S.R., & Ginis, K.A. (2008). Behavior change and the freshman 15: Tracking physical activity and dietary patterns in 1st year university women. *Journal of American College Health*, 56 (5), 523-530.

Karlen, J. M., (2004). Attrition of women business majors in an urban community college. *Journal of College Student Retention*, 5, 1-9.

Keating, X., Guan, J., Pinero, J.C., Bridges, D. M. (2005). A meta-analysis of college students' activity behaviors. *Journal of American College Health*, 54, 116-125.

Kuh, G.D., & Arnold, J.C. (1993). Liquid bonding: A cultural analysis of the role of alcohol in fraternity pledgship. *Journal of College Student Development*, 34, 587- 598.

Kuh, G., Carini, R., & Cline, S. (2004). *Student engagement and student learning:*

- Insights* from a validation study. Paper presented at the annual meeting of the American Educational Research Association. San Diego.
- Macdonald, D., Hunter, L., Carlson, T., & Penney, D. (2002). Teacher knowledge and the disjunction between school curriculum and teacher education. *Asia Pacific Journal of Teacher Education, 30*, 259-75.
- Malina, R., Bouchard, C., Oded, B. (2003). *Growth, maturation & physical activity*. Champaign, IL: Human Kinetics.
- Mallinckrodt, B. (1988). Student retention social support and drop out intentions: Comparison of black and white students. *Journal of College Student Development, 29* (1), 60-64.
- Martin, J., Hamilton, B., Osterman, M., Curtin, M., & Matthews, T. (2015) Births: Final data for 2013. *National Vital Statistics Reports; 64* (1). 1-65.
- McCullick, B.A., Lux, K.M., Belcher, D.G., Danes, N. (2012). A portrait of the PETE major: Re-touched for the early twenty-first century. *Physical Education & Sport Pedagogy, 17* (2), 177-193.
- Nilges, L. (1998). I thought only fairy tales had supernatural power: A radical feminist analysis of Title IX in physical education. *Journal of Teaching in Physical Education, 17*, 172-194.
- O'Keefe, P. (2013). A sense of belonging: Improving student retention. *College Student Journal, 47* (4), 605-613.
- Olafson, L. (2002). "I hate phys. ed" : Adolescent girls talk about physical education. *Physical Educator, 59* (2), 67.
- Ornes, L., & Ransdell, L.B. (2007). Web-based physical activity intervention for college-

- aged women. *International Electronic Journal of Health Education*, 10, 126-137.
- Ory, J., Braskamp, L. (1988). Involvement and growth of students in three academic programs. *Research in Higher Education*, 28 (2), 116-129.
- Ottesen, L. & Krustup, B. (2013). Soccer, running and health for women. University of Copenhagen. Retrieved from:
[http://www.ifl.ku.dk/english/research/section/integrated_physiology/pkfootball
health/women](http://www.ifl.ku.dk/english/research/section/integrated_physiology/pkfootball_health/women)
- Parker, J., & Schmidt, J. (1982). Effects of college experience. In *Encyclopedia of Educational Research*, Fifth ed., edited by H.Mitzel. New York: Free Press.
- Pascarella, E., & Terenzini, P. (1980). Predicting persistence and voluntary dropout decisions from a theoretical model. *Journal of Higher Education*, 51 (1), 60-75.
- Pascarella, E., & Terenzini, P. (2005). *How college affects students: A third decade of research. Vol.2*. San Francisco: Jossey-Bass.
- Pascucci, M., (2014). *Campus calm*, Retrieved from:
http://www.campuscalm.com/women_leadership_barriers.html
- Pincock, S. (2013). David Barker. *The Lancet*, 382, 1170. doi: 10.1016/S0140-6736(13)62050-4.
- Pahlke, E., Hyde, J.S. (2014). The effects of single-sex compared with coeducational schooling on students' performance and attitudes: A meta-analysis. *Psychological Bulletin* online Feb. 3.
- Prendergast, M. L. (1994). Substance use and abuse among college students: a review of recent literature. *Journal of American College Health*, 43, 99-113.
- Reason, R., Terenzini, P., & Domingo, R. (2006). First things first: Developing

- competence in the first year of college. *Research in Higher Education*, 47 (2), 149-176.
- Reed, J.A., (2007). Examining the impact of an email campaign to promote physical activity and walking in adult women six-weeks and one-year post-intervention. *Journal of Research*, 4 (1), 64-69.
- Saldana, J. (2009). *The coding manual for qualitative researchers*. Los Angeles: Sage.
- Schlossberg, N. (1989). Marginality and mattering: Key issues in building community. In *Designing Campus Activities to Foster a Sense of Community. New Directions for Student Services, No. 48*, edited by D. Roberts. (5-15). San Francisco: Jossey-Bass.
- Schmutte, P.S., & Ryff, C.D. (1997). Personality and well-being: Reexamining methods and meanings. *Journal of Personality and Social Psychology*, 73, 549-559.
- Schnell, C. A., & Doetkott, C. D. (2003). First year seminars produce long-term impact. *Journal of College Student Retention*, 4, 377-91.
- Scott-Sheldon, L.A., Carey, K.B., & Carey, M.P. (2008). Health behavior and college students: Does Greek affiliation matter? *Journal of Behavioral Medicine*, 31, 61-70.
- Soliah, L., Walter, J., & Antosh, D. (2008). Physical activity patterns of young women post-college graduation. *College Student Journal*, 42 (1), 3-14.
- Starks, G., (1987). *Retention of adult women students in the community college: Research findings from exceptional case studies*. Proceedings from Annual Meeting of the American Educational Research Association. Washington, D.C.
- Stice, E., Rohde. P., Shaw. H., & Marti, N., (2012). Efficacy of a selective prevention

- program targeting both eating disorder symptoms and unhealthy weight gain among female college students. *Journal of Consulting and Clinical Psychology*, 80 (1), 164-170.
- Stroot, S., & Ko, B., (2006). Induction of beginning physical education into the school setting. D. Kirk, D. Macdonald & M. D' Sullivan eds. *The Handbook of Physical Education* (425- 48). Thousand Oaks, CA: Sage.
- Sullivan, E.L., & Grove, K, L. (2010). Metabolic imprinting of obesity. *Forum Nutrition*, 63, 186-194. doi 10.1159/000264406.
- Symonds, M. E., Mendez, M.A., Meltzer, H.M., Koletzko, B., Godfrey, K., Forsyth, S., & van der Beek, E.M. (2013). Early life nutritional programming of obesity: mother- child cohort studies. *Annals of Nutrition and Metabolism*, 62, 137-145.
- Taylor, K., Moore, W., MacGregor, J., & Lindblad, J. (2003). Learning community research and assessment: What we know now. *National Learning Communities Monograph series*. Olympia, WA: Washington Center for Improving the Quality of Undergraduate Education.
- Tinning, R. I. (2004) Rethinking the preparation of HPE teachers: Ruminations on Knowledge identity, and ways of thinking. *Asia-Pacific Journal of Teacher Education*. 32, 241-53.
- Tinto, V. (1975). Dropouts from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45 (1), 89-125.
- Tinto, V. (1993). *Leaving College: Rethinking the causes and cures of student attrition*. 2nd. Ed. Chicago: University of Chicago Press.
- Tinto, V. (1997). Colleges as communities: Exploring the educational character of

- student persistence. *Journal of Higher Education*, 68 (6), 599-623.
- Tinto, V. (1999). *Adapting learning communities to the needs of development education students*. Paper presented at the National Center for Postsecondary Improvement, Stanford University. Stanford.
- Tinto, V. (2012). *Completing college: Rethinking institutional action*. Chicago. University of Chicago Press.
- Thomas, J., French, K. (1985). Gender differences across age in motor performance: A meta-analysis. *Psychological Bulletin*, 98 (2), 266-82.
- Trokkel, M.T., Barnes, M.D., & Egget, D.L. (2000). Health-related variables and academic performance among first-year college students: Implications for sleep and other behaviors. *Journal of American College Health*, 49, 125-131.
- University of Missouri, Kansas City, (2013). *Student involvement national statistics*
Retrieved from: <http://www.umkc.edu>
- Upcraft, M., Gardner, J., & Associates. (1989). *The freshman year experience*. San Francisco: Jossey-Bass.
- Waldron, J.J., & Dieser R.B. (2010). Perspectives of fitness and health in college men and women. *Journal of College Student Development*, 51, 1-16.
- Wechsler, H., Kuh, G. & Davenport, A.E. (2009). Fraternities, sororities and binge drinking: Results from a national study of American colleges. *NASPA Journal Online*, 46 (3), 395-415. Retrieved from: <http://www.naspa.org/publications/journals>
- Weschler, H., Davenport, A., Dowdall, G., Moeykens, B., & Castillo, S. (1994). Health and behavioral consequences of binge drinking in college. A national survey of students at 140 campuses. *Journal of the American Medical Association*, 272, 1672-1677.

- Wilson, R., Wood, L., & Gaff, J. (1974). Social –psychological accessibility and faculty-student interaction beyond the classroom. *Sociology of Education*, 47 (1), 74-92.
- Windham, M.H., Rehfuss, M. C., Williams, C.R., Pugh, J. V., & Tincher-Ladner, L. (2006). Retention of first-year community college students. *Community College Journal of Research & Practice*, 38 (5), 466-477.
- Wuthrich, C., K. (2009). Reflections on personal responsibility: Sorority members at risk for interpersonal violence. *NASPA Journal*, 46 (2), 228-257.
- Zhao, C., & Kuh, G. (2004). Adding value: Learning communities and student engagement. *Research in Higher Education*. 45 (2), 115-138.

APPENDICES

Appendix A : Focus Groups Questions Protocol

Focus Group Questions Protocol

- 1) What are the first two words that come to your mind when you think of Women's Personal Conditioning? What are they when you think of the instructor?
- 2) Why did you choose to take the class?
- 3) What did you expect to get out of your participation?
- 4) What things were barriers to you consistently taking part in the class?
- 5) Was the whole woman approach (physical, emotional, mental) important?
- 6) What parts of the class helped you the most and why?
- 7) What were the least beneficial parts of the class and why?
- 8) What could be done to make the class more appealing to college women?
- 9) Were there lifestyle changes because of the class? If so, what were they?
- 10) What can be done to help any positive lifestyle changes to become a permanent part of your life and those around you?
- 11) Would you take part in another class like this?
Why or why not? Would you recommend it to a friend? Why or why not?

The Overall and Longitudinal Effects of a Women's Personal Conditioning Class

Semi-Structured Interview Guide

1. What was your wellness life like as a child growing up?
2. How did your participation in the Women's Personal Conditioning (WPC) class affect you? Were any unhealthy behaviors affected?
3. Were any positive behavioral patterns created in the class transferred to your lifestyle outside the class? If so, have they lasted over time? Please explain.
4. Was the all-woman aspect of WPC important to its impact on your life? Why or why not?

5. Did the team-building /social support aspect of the class have any effect on your personal life? Were you effected emotionally by the class and if so how?
6. Did what you learned about nutrition in WPC effect you're eating patterns? If so, how and why? Have any changes been permanent?
7. Is your physical activity pattern different after the class? If so, how has it changed and why?
8. Are there other understandings you took away from the class that have been particularly helpful in your life since? If so, please elaborate.
9. Do you believe the class was effective in giving you a sense of belonging to a positive group on campus? Why? Did it help you to feel more engaged? Did you feel welcomed?
10. Did you feel you had a positive relationship with the instructor? If so, please explain.
11. If you were a freshman when you took the class do you think it was a factor in your success as a student and was it important in helping you move toward graduation? If you weren't a freshman do you think WPC would be an important class for first year students to take with regard to their success as a student and ability to graduate? If so, please explain?
12. Is there anything you would like to add that I haven't asked about?

Appendix B: In-depth Interview Questions

The Overall and Longitudinal Effects of a Women's Personal Conditioning ClassSemi-Structured Interview Guide

1. What was your wellness life like as a child growing up?
2. How did your participation in the Women's Personal Conditioning (WPC) class affect you? Were any unhealthy behaviors affected?
3. Were any positive behavioral patterns created in the class transferred to your lifestyle outside the class? If so, have they lasted over time? Please explain.
4. Was the all-woman aspect of WPC important to its impact on your life? Why or why not?
5. Did the team-building /social support aspect of the class have any effect on your personal life? Were you effected emotionally by the class and if so how?
6. Did what you learned about nutrition in WPC effect you're eating patterns? If so, how and why? Have any changes been permanent?
7. Is your physical activity pattern different after the class? If so, how has it changed and why?
8. Are there other understandings you took away from the class that have been particularly helpful in your life since? If so, please elaborate.
9. Do you believe the class was effective in giving you a sense of belonging to a positive group on campus? Why? Did it help you to feel more engaged? Did you feel welcomed?
10. Did you feel you had a positive relationship with the instructor? If so, please explain.
11. If you were a freshman when you took the class do you think it was a factor in your success as a student and was it important in helping you move toward graduation? If you weren't a freshman do you think WPC would be an important class for first year students to take with regard to their success as a student and ability to graduate? If so, please explain?
12. Is there anything you would like to add that I haven't asked about?

Appendix C: IRB Approvals



January 27, 2013

Joel Malone, Dr. Don Belcher
Department of Health and Human Performance
jem4v@mtmal.mtsu.edu, Don.Belcher@mtsu.edu

Protocol Title: "Women's Personal Conditioning Qualitative Effects"

Protocol Number: 13-185

Dear Investigator(s),

The exemption is pursuant to 45 CFR 46.101(b) (2). This is because the research being conducted involves the use of educational tests, survey procedures, interview procedures or observation of public behavior.

You will need to submit an end-of-project report to the Compliance Office 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 27, 2016**.

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.

Sincerely,

Andrew W. Jones

Compliance Office
615-494-8918
Compliance@mtsu.edu



4/10/2014

Investigator(s): Joe Malone and Dr. Don Belcher
Department: Health and Human Performance
Investigator(s) Email Address: Joe.Malone@mtsu.edu; Don.Belcher@mtsu.edu

Protocol Title: The Overall and Longitudinal Qualitative Effects of a Women's Personal Conditioning Class

Protocol Number: #14-336

Dear Investigator(s),

Your study has been designated to be exempt. The exemption is pursuant to 45 CFR 46.101(b)(2) Educational Tests, Surveys, Interviews, or Observations.

We will contact you annually on the status of your project. If it is completed, we will close it out of our system. You do not need to complete a progress report and you will not need to complete a final report. It is important to note that your study is approved for the life of the project and does not have an expiration date.

The following changes must be reported to the Office of Compliance before they are initiated:

- Adding new subject population
- Adding a new investigator
- Adding new procedures (e.g., new survey; new questions to your survey)
- A change in funding source
- Any change that makes the study no longer eligible for exemption.

The following changes do not need to be reported to the Office of Compliance:

- Editorial or administrative revisions to the consent or other study documents
- Increasing or decreasing the number of subjects from your proposed population

If you encounter any serious unanticipated problems to participants, or if you have any questions as you conduct your research, please do not hesitate to contact us.

Sincerely,

Lauren K. Qualls, Graduate Assistant
Office of Compliance
615-494-8918



7/24/2014

Investigator(s): Joe Malone, Don Belcher
Department: Health and Human Performance
Investigator(s) Email Address: Joe.Malone@mtsu.edu, Don.Belcher@mtsu.edu

Protocol Title: Perception of the Effects of a Personal Conditioning Classes on Students

Protocol Number: #15-014

Dear Investigator(s),

Your study has been designated to be exempt. The exemption is pursuant to 45 CFR 46.101(b)(2) Educational Tests, Surveys, Interviews, or Observations.

We will contact you annually on the status of your project. If it is completed, we will close it out of our system. You do not need to complete a progress report and you will not need to complete a final report. It is important to note that your study is approved for the life of the project and does not have an expiration date.

The following changes must be reported to the Office of Compliance before they are initiated:

- Adding new subject population
- Adding a new investigator
- Adding new procedures (e.g., new survey; new questions to your survey)
- A change in funding source
- Any change that makes the study no longer eligible for exemption.

The following changes do not need to be reported to the Office of Compliance:

- Editorial or administrative revisions to the consent or other study documents
- Increasing or decreasing the number of subjects from your proposed population

If you encounter any serious unanticipated problems to participants, or if you have any questions as you conduct your research, please do not hesitate to contact us.

Sincerely,

Kellie Hilker, Compliance Officer
Office of Compliance
615-494-8918

