

A STUDY OF WOMEN'S PHYSICAL
ACTIVITY AS A LEISURE
CHOICE

By

KELLI KRISTINE MCMAHAN

Bachelor of Science in Education

Baylor University

Waco, Texas

1992

Submitted to the Faculty of the
Graduate College of
Oklahoma State University
in partial fulfillment of
the requirements for
the degree of
MASTER OF SCIENCE
May, 1998

A STUDY OF WOMEN'S PHYSICAL
ACTIVITY AS A LEISURE
CHOICE

Thesis Approved:

Christine M. Cashel

Thesis Advisor

Suzanne W. L. Lowe

Yorvell Canada

Wayne B. Powell

Dean of the Graduate College

DEDICATION

This paper is dedicated to my mother and father, Tom and Ruth Ann McMahan, for there are always two sides to every story told. The completion of my graduate education would not have been possible without the personal sacrifice and encouragement they so graciously gave. I thank them for their lives - for the causes they have been so passionate about, for their faith and for their love that seems endless. Every moment of happiness and accomplishment I have been fortunate enough to have is a direct result of all they given to me and for that I am truly blessed. Through their own wisdom and insightfulness, I have grown to value education and the search for truth. This is what education means to me and has been what completing this paper is all about. What they have taught me will be a treasure for a lifetime. For that, I am truly grateful.

ACKNOWLEDGMENTS

Special appreciation is extended to Dr. Chris Cashel, committee chair, for her guidance and assistance. The process and completion have since become much more rewarding because of her encouragement and expectation for me to give this my best. Appreciation is also extended to the other committee members: to Dr. Lowell Caneday for his insight and advice and to Dr. Suzie Lane for her suggestions and willingness to participate on this committee.

Appreciation is extended to Dr. Steven Edwards for his help with the statistical results of this project and his friendship throughout my graduate work. I have great admiration for the commitment and dedication he gives all his students.

I would also like to extend special thanks to my family and friends for their continued support in my efforts to complete my graduate work. Thank you to everyone at Quail Springs Baptist Church for providing a great church home for me while I was living in Oklahoma City. I would like to thank Stacie Sherry for her friendship and for her role she played in the completion of this paper. Thanks to my current employer, Georgetown Parks and Recreation for supporting the completion of my graduate work. Thank you for the chance to use my skills, abilities and interests extensively in a way that I truly enjoy and is beneficial to others. Thanks to Kimberly Garrett for her help in formatting this paper. Thanks to Dr. Tom Kerns, retired professor from Fort Hayes State University, for his suggestions and encouragement and to Dr. Karla Lowry, Professor of Physical Education at Southwestern University, for her assistance in data collection.

Special thanks are extended to many professors and colleagues in this profession who have influenced and inspired me: Dr. Sharon Baack, Burnie Battles, Dr. Dale

Connally, John Faribault, Dr. Buddy Gilchrest, Jimmy Griffin, Hal Hill, Melissa Murnane, Kip Prichard, Dutch Schroeder, Greg Windham and Alistair Young.

I am thankful for the unmentioned individuals and events that have helped shape who I am. I am proud to be a woman and feel fortunate to live in a decade where such great strides have been made for the betterment of women. I recognize that I have a great responsibility to further that progress as an advocate and change maker for women as well as my profession.

Lastly and most importantly, I would like to thank God for the repeated opportunities that have been given to me. My prayer is that I will remain obedient in seeking and following His will for my life, and that the things I have learned can be used for His good. I believe education without action is useless, and my prayer is that I can make a small difference in my profession and in the lives of individuals.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
Background	5
Statement of the Problem.....	7
Purpose.....	8
Objectives	9
Hypotheses.....	9
Delimitations.....	10
Limitations	11
Assumptions.....	11
Definition of Terms.....	12
II. REVIEW OF LITERATURE.....	14
Introduction.....	14
Definitions of Leisure	14
Benefits of Leisure	16
Factors Associated with Leisure Choice.....	18
Determinants of Physical Activity	26
Physical Activity and Women	31
III. METHODS AND PROCEDURES.....	38
Preliminary Procedures.....	38
Selection of the Instrument.....	39
Selection of the Population Sample	40
University Approval.....	41
Operation Procedures.....	42
Treatment of the Data	42
Analysis of Data	43
IV. RESULTS AND DISCUSSIONS.....	44
V. SUMMARY, RECOMMENDATIONS AND IMPLICATIONS	81

Chapter	Page
BIBLIOGRAPHY	90
APPENDICES	97
APPENDIX A – CORRESPONDENCE	98
APPENDIX B - RESEARCH INSTRUMENT	100
APPENDIX C - ACTIVITY REFERENCE CARD	109
APPENDIX D – RAW DATE RESULTS AND TABLES.....	112
APPENDIX E - HUMAN SUBJECTS RESEARCH APPROVAL	119

LIST OF TABLES

Table		Page
1.	Taxonomy of leisure participation and cluster of activities.....	2
2.	Frequency and means of age groups.....	45
3.	Frequency and percentage of marital status.....	46
4.	Frequency and percentage of highest levels of education	47
5.	Frequency and percentage of employment status	48
6.	Frequency and percentages of family's total income last year	50
7.	Activity levels and percentages for all sample and age group.....	51
8.	Most reported weekly activities overall and by age groups.....	51
9.	Most reported activities in the last month overall and by age group	52
10.	Frequency and percentages relating to participation in activities in the last year for all respondents	52
11.	Means for reasons for participation in physical activity	53
12.	Frequency and percentages for leisure partners.....	54
13.	Frequency and percentages for when physical activity occurs for all respondents	54
14.	Frequency and percentages for at what time does physical activity occurs	55
15.	Frequency and percentages for locations for physical activity	56
16.	Frequency and percentage for duration of time for weekly physical activity	56
17.	Frequency and percentage for perception of fitness level	57

Table	Page
18. Frequency and percentage for obstacles to participation.....	58
19. Frequency and percentage for comparison of obstacles by activity levels.....	59
20. Frequency and percentage of conditions that would increase physical activity.....	61
21. Frequency for indicated constraints to and conditions that would increase participation in physical activity.....	63
22. ANOVA for difference in means in groups for reason: to feel better mentally and physically	67
23. ANOVA for difference in means in groups for reason: because of a fitness specialist's advice for improving health in general	68
24. ANOVA for difference in means in groups for reason: because of a doctor's orders for therapy or rehabilitation.....	69
25. ANOVA for amount of past recreation experience compared to activity levels	71

CHAPTER I

INTRODUCTION

Participation in leisure has significantly increased in the last few decades (Jackson & Burton, 1989). One explanation for this is that society as a whole has begun to place more importance on leisure (Tinsley, Barrett & Kass, 1988). The old “work ethic” that bound value to productivity has been replaced by a more contemporary perspective - that of a “leisure ethic.” A leisure ethic implies that leisure is recognized as something worthwhile and beneficial for society and the individual. There are numerous examples of how leisure has been considered in planning for a better economic, environmental, and social future (Kanters & Montelpare, 1994). For example, many employers have begun to emphasize wellness programs along with balance of work, family and leisure for their employees. The benefits of this balance and time available for personal leisure in the long run can increase job effectiveness and prove preventative in health care costs. Another example of the benefits of leisure for society is the unique recreation opportunities made available through the conservation and preservation of park land and green belt areas. These opportunities not only provide recreation but a tool which promotes an environmental ethic and appreciation for natural resources. These are just a few examples of how leisure can improve overall pride and harmony within society (Driver, B.L., Brown, P.J., & Peterson, 1991; Goodale & Godbey, 1988; McDaniels, 1982).

Another reason why participation in leisure has increased is that individuals as a whole have more money and time to spend on leisure (Greenberg & Frank, 1983; Tinsley, Barrett & Kass, 1977). More importantly, many individuals recognize that leisure can significantly impact physical and mental health and overall quality and enrichment of life (De Garzia, 1962; Harper, 1981; Kelly, 1996; O'Brien, 1996). There have been many attempts to categorize all the activities that could be considered "leisure producing" and all the possible benefits of involvement in leisure (Kelly, 1996; Shaw, 1985; Tinsley & Eldridge, 1995). The groupings or classifications are most often referred to as clusters or taxonomies. The basic concept is that individuals have basic leisure needs or seek out activities because of specific benefits desired. For example, in a study completed by Tinsley & Eldridge (1995), respondents were asked to indicate which psychological needs were met by their experience in leisure activities. The researcher created an instrument that measured 11 psychological benefits of leisure based on needs and then clustered the activities into 12 separate categories. (See table 1)

TABLE 1

Psychological Benefits of Leisure Participation	Activity Cluster
1. Exertion	1. Agency
2. Affiliation	2. Novelty
3. Enhancement	3. Belongingness
4. Self Expression	4. Service
5. Nurturance	5. Sensual enjoyment
6. Compensation	6. Cognitive stimulation
7. Sensibility	7. Self expression
8. Conscientiousness	8. Creativity
9. Status	9. Competition
10. Challenge	10. Vicarious competition
11. Hedonism	11. Relaxation
	12. Residual

Source: Tinsley, H.E.A & Eldredge, B. D. (1995). Psychological Benefits of Leisure Participation: A Taxonomy of Leisure Activities on Their Need Gratifying Properties.

While the concept and benefits related to leisure have existed since ancient Greek times, the recognition of the complexity of leisure has changed.

There has been some debate in exactly how to define leisure, more specifically whether leisure is time away from work, a particular activity or if leisure is contingent on a person's state of mind. It is in this context that researchers have begun to recognize leisure less simplistically as a particular activity and more as a result of intrinsic motivation. To date, perhaps the most comprehensive understanding of the leisure experience is that it is not dependent on any amount of time, activity or location and can be experienced in numerous ways. For example, if leisure is truly dependent on state of mind, someone can experience leisure driving in the car or at work. Nonetheless, the psychological needs or the desired benefits of the individual reveal two important variables: personal choice and intrinsic motivation, which together create the authenticity of the leisure experience (Greenberg & Frank, 1983; Shaw, 1995).

Leisure is not just a mishap experience, however. Research suggests that how much and to what extent leisure becomes a component in the lives of individuals is based on personal decisions that result from personal values and choice (Kelly, 1996). These personal values significantly influence leisure behavior. Shaw (1985), suggests that what might be leisure for one person might not be for another even though they are participating in the same activity. While leisure can take many forms, it is important to clarify the context in which leisure will be referred to for this research paper. Three forms of leisure that are of interest to the researcher are those of recreation, sport and play, all of which represent physical activity.

Leisure becomes a complex phenomenon when it's existence is contingent on the combination of personal values, choice and intrinsic motivation and yet has the potential to produce life changing results (Tinsley & Tinsley, 1986). Therefore, it is no surprise that so much has been written throughout the course of history about leisure. One of the current issues for research revolves around exploring the unique leisure needs and leisure experiences for certain groups such as women.

In the 1970's, during the heart of the women's movement, women recreators along with women (and men), representing the recreation and physical education profession, began to speak out about the absence of women involved in sports and physical activity (Feltz, 1992; Koehler, 1994). It was apparent that while women had been recreating together for centuries they had not taken part in leisure to the extent as men. It appeared that women did not have the same amount of time or diversity of opportunities for leisure as men. The concern centered around the lack of opportunity for women and the extent of their involvement in many forms of physical activity including, but not limited to, sports (Tinkler, 1994). First, it was clear that girls and young women were not participating in the same physical activities as boys and young men during grade school, secondary education and into the collegiate level as well. It appeared that as men moved into adulthood, not only did they have an interest to continue involvement in physical activities, but also the opportunity to participate was readily available. This did not appear to be the case for women. Women, in many instances did not have the same interest but more importantly did not have the same opportunities. The passage of the educational amendment, Title IX, called attention to the low participation rates and lack of opportunities in sport and physical activity for females by implementing standards and

guidelines at the collegiate level (Lirgg, 1992; Miner, 1993; Tinsley, Barrett & Kass, 1977). Since that time, opportunities for women have increased. However, women having the opportunities to participate in physical activities of all kinds are still one major issue at the forefront of concern for women and practitioners.

It is not until recently that researchers have begun to recognize the differences and similarities between men and women in regard to their leisure experiences and needs (Deem, 1995; Shaw, 1994). For the most part, the majority of literature written about the leisure experience has been descriptive of the male experience and perspective (Deem, 1995). Consequently, women participated in programming and experiences that were designed based on what had been studied and reported by men based on their needs and experience. It became clear that women possibly could not only participate in leisure for different reasons but also interpret their experience differently than a man participating in exactly the same activity. In short, a lack of literature about women has created a gap in knowledge (Deem, 1986). This has warranted the need to gain clarity in understanding the meaning and existence of active forms of leisure for women which sets the stage for the progression of this research endeavor.

Background

In recent years there has been an emerging acknowledgment of the need to address what the leisure experience means specifically to women (Firestone & Shelton, 1994; Henderson, 1996; Kay, 1996; Mowl & Tanner, 1995; Russell, 1996; Scraton, 1994; Shaw, 1994). Research has been directed primarily at exploring leisure values, benefits,

motivators, barriers and constraints as they relate to women (Henderson, 1994b; Shaw, 1985). Recognizing the perspective of women takes into the account both gender-based dimensions of leisure and the impacts of the women's movement.

The women's movement has looked at many topics relating to women such as equality for work, pay and education. Leisure and sport has been one of the last topics to be addressed (Deem, 1986). However, all of these topics are associated with one other. For instance women who are active in the workplace (full-time or part-time) have indicated that they feel more entitled to participate in leisure opportunities. Employment not only gives them more financial freedom but also increases opportunities for social networking (Kay, 1996; Wearing & Wearing, 1988). Conversely, women whose activities and work center around the home, may not participate in some leisure activities because of perceived gender stereotypes and/or a lack of personal characteristics. These characteristics might include positive self-image, clear personal values, sense of entitlement, and skillfulness (Deem, 1986; Harrington & Dawson, 1995).

Some research indicates that whether employed or not, women's leisure involvement and regular participation are significantly less than for men (Green, Hebron & Woodward, 1990; Shaw, 1994; Wearing & Wearing, 1988). There are many possible explanations for this phenomena but it seems likely that the presence of constraints which prevent or reduce opportunities for leisure activity may play an important role in the search for understanding (Shaw, 1994). Some of the things that women have indicated as constraints are: (1) fear of physical danger; (2) lack of skills; (3) lack of time; (4) lack of social partners; (5) lack of opportunity; (6) lack of money; and, (7) less than adequate

facilities (Green, Hebron & Woodward, 1987; Harrington, 1995; Jackson & Henderson, 1995; Shaw, 1994).

Shaw, Bonen & McCabe (1991) attribute the apparent absence of women in certain leisure pursuits to be a result of being female. For example, some women's leisure choices may be a reflection of what they believe to be their social roles and expectations. (Shaw, 1994). Even though some women are now employed full or part time in the workplace, the responsibility for housekeeping and child care is still associated mostly with women (Firestone & Shelton, 1994). Women have also reported that this responsibility for the welfare of significant others makes it difficult to engage in activities which are solely for their own betterment and enjoyment because the enjoyment is tempered with some amount of guilt (Henderson, 1995). Another barrier to participation for some women might be the societal influenced belief that certain leisure activities are predominantly for men (Harrington & Dawson, 1995). Shaw (1994) makes a significant distinction suggesting that constraints prevent or reduce opportunities for women in two ways. Constraints not only limit overall leisure experiences but also affect participation in specific type of leisure activities by women. Participation in sports, outdoor activities and other physically active pursuits are some of the leisure activities that women tend to participate in less than other forms of leisure (Henderson, 1995). Whatever these constraints or barriers might be, there is a need for research which investigates further the factors which influence how women choose to use their personal free time (Henderson, 1995).

Statement of the problem and justification

While leisure can and does mean different things for different women, females show limited participation in types of physical activity which can include sports, recreation and play (Henderson, 1994). The limited participation may be due to the barriers and constraints mentioned earlier or due to some women's inability or lack of desire to choose and adopt consistent and active leisure habits. As in most cases, however, there are exceptions. For instance, some women are able to move beyond what could be considered traditional and acceptable recreation for women as well as constraints and become involved in vigorous physical activities of all kinds (Henderson, 1995). For example, higher proportions of women are participating in running clubs, various leagues such as softball, soccer, golf and tennis, all women outdoor trips, and pursuing outdoor experiences and skills of many kinds. This circumstance might suggest that some women are expanding and broadening the way in which recreation is defined and pursued in their lives. Likewise, it is possible that after given the opportunity for physical activity, women will not participate in more active forms of leisure simply because they do not like it. In summary, the general problem is to explore women's overall participation in physical activity and interpretations of leisure experiences.

Purpose

The purpose of this research endeavor was to determine the extent of physical activity by women as a leisure choice. This research served as one indicator in which to validate, confirm or deny previous finding related to women and their leisure involvement.

Objectives

This study was designed:

1. To determine the extent of physical activity by women between the ages of twenty and fifty-nine in one geographic location.
2. To identify the type of physical activities in which women currently participate.
3. To identify the motives, determinants of choice, and constraints for physical activity.
4. To identify patterns of participation between current interests and those pursuits to which women have been exposed in the past.
5. To contribute to the understanding and knowledge centering around women's leisure involvement in physical activity.

Hypotheses

The following null hypotheses were tested:

- Ho₁ There is no significant difference in levels of physical activity by age group.(20-39; 40-59)
- Ho₂ There is no significant difference in levels of physical activity by marital status.
- Ho₃ There is no significant difference in levels of physical activity by levels of education.
- Ho₄ There is no significant difference in levels of physical activity by employment status.

- Ho₅ There is no significant difference in reasons for participation by age group. (20-29; 40-59).
- Ho₆ There is no significant difference in reasons for participation by an activity levels (active, moderately active, sedentary).
- Ho₇ There is no significant difference in conditions for increased activity by activity levels (active, moderately active, sedentary).
- Ho₈ There is no significant difference in conditions for increased activity by levels of education.
- Ho₉ There is no significant difference in conditions for increased an activity by marital status.
- Ho₁₀ There is no significant difference in conditions for increased activity by employment status.
- Ho₁₁ There is no significant relationship between current activity levels and past experience in physical activity.
- Ho₁₂ There is no significant difference in the perceived fitness levels and activity levels of women.

Delimitations

To assure maintaining acceptable standards of measure, this study was subject to the following delimitations.

1. The subjects participating were between the age of 20-59.

2. Subjects originated from nearby universities, organizations and groups for women and women responding to a call for volunteers. All subjects were from the geographic location of Georgetown, Texas.
3. All subjects received instructions, verbally or written, before completing the questionnaires.

Limitations

The study was subject to the following limitations.

1. The subjects were not randomly selected but represent an adequate non-probability sample.
2. There was no specific effort to address socio-economic status or ethnic diversity although the presence of these factors will be accepted.
3. The small number of participants limited the scope in generalizing the findings.
4. The consistency in which participants responded to the questions.

Assumptions

It was assumed that:

1. Women who responded to the survey did so honestly and accurately.
2. Women's participation in physical activity was also a leisure experience.

Definitions of Terms

1. Constraints - anything of any condition that inhibit a women's ability to participate in leisure activities.
2. Gender - the socially constructed, normative conception of male' female status (Deem, 1986).
3. Leisure ethic - value placed on leisure
4. Leisure - Opportunities in which individuals exercise freedom of choice to partake in any experience that is rewarding, meaningful and intrinsically motivated.
5. NRPA - National Recreation and Parks Association
6. Physical activity - Activities not sedentary in nature that include recreation, sport (competitive or non-competitive) or play.
7. Physically active pursuits - Activities that are more vigorous in nature, chosen as recreation pursuits and are participated in as a form of leisure.
8. Play - "A form of human behavior, self motivated and carried on for its own intrinsic purposes. It is generally pleasurable, and is often marked by elements of competition, exploration, and problem solving, and mimicry or role-taking. It may appear both in leisure and in work, and may be marked by freedom and lack of structure, or by a set of rules and prescribed action" (Kraus, 1990).
9. Recreation: - "Voluntary non-work activity that is organized for the attainment of personal and social benefits including restoration and social cohesion." (Kelly, 1996, p. 336).
10. Sex - biological determination

11. Socialization - the process whereby individuals learn the skills, values, norms and behaviors enabling them to function competently in many different social roles within their group or culture (Weiss & Glenn, 1992).
12. Title IX - educational amendment passed in 1972 by the U.S. Congress to outlaw sexual discrimination for women in collegiate sports and athletics.
13. Work ethic - value placed on productivity.

CHAPTER II

REVIEW OF LITERATURE

The purpose of chapter two is to examine literature that has been published about leisure that is specifically related to women. For clarity, this chapter has been divided into three sections. The first section will review literature that is relevant to the overall experience of leisure including perceptions and accepted meanings of leisure as well as the potential benefits of leisure. The second section will review literature concerned with factors that both influence and constrain leisure choice. The third and final section will review literature that describes the visibility of women in active forms of leisure and the results of related studies.

Definition of leisure

While there are many reasons that justify the need to research the phenomenon of leisure, there are equally as many reasons that make it necessary to clarify and distinguish between the many interpretations and meaning of leisure (Iso-Ahlo, 1980). Leisure is an ancient concept derived from the Latin word, *licere*, meaning to be free. Initially, this freedom was perceived to only occur after work and other obligations were through. For instance, Parker (1976) combines the idea of time and activity and defines leisure as “time free from work and other obligation and that which encompasses activities which are characterized by a feeling of freedom. Roberts (1978) says that leisure is a “relatively

self-determined non-work activity.” Zinser (1996) defines leisure as “ the free or discretionary time available for people to use as they choose after meeting the biological requirements of existence and the subsistence requirements of work. Dumazedier (1980) gives a similar viewpoint describing leisure as “apart from the obligations of work, family and society - to which the individual turns at will for either relaxation, diversion, or broadening one’s knowledge and spontaneous social participation, the free exercise of one’s creative capacity.”

Present in all of these definitions was the idea of “time” which Iso-Ahola (1980) describes as an objective interpretation. Time can be divided into three segments: (1) existence- the time needed for life functions; (2) subsistence - time used for eating, sleeping etc. and, (3) discretionary - time left over from all other obligations (time for leisure). One argument for not viewing leisure simply as free time results from the necessity to consider those who have an abundance of free time but do not experience true leisure.

Another perception about leisure is that it is an activity of some kind or an activity set (Iso-Ahola, 1980). Kelly (1983) however, would argue that the kinds of activities that may be considered leisure are endless. Priest (1992), adds that it would be impossible to list every situation that could or would not be conducive for a leisure experience.

A more accurate definition of leisure encompasses the ancient idea, freedom of choice and includes intrinsic motivation, perceived competence and state of mind (Kelly, 1996; Shaw, 1985; Wankel, 1994). Perceived freedom implies that an individual has and should invoke choices in determining their leisure pursuits. Intrinsic motivation requires

that the individual choose leisure because of internal (psychological) factors rather than external. Neulinger (1974) provides a definition that reflects this idea: “ To leisure means to be engaged in an activity performed for its own sake, to do something which gives one pleasure and satisfaction, which involves one to the very core of one’s being. To leisure means to be oneself, to express one’s talents, one’s capacities, one’s potentials.” This idea becomes more clear as the numerous benefits of leisure are explored. These benefits can represent the specific reasons why individuals choose to engage in a particular activity. One’s state of mind, a concept that originates from the flow theory, gives the individual the ability to influence or control their leisure experience (Csikszentmihalyi, 1975). In essence, the involvement in the experience cause the individual to loose awareness of self.

Lastly, perceived competence simply suggests that the skills that individuals believe they possess, directly relate to the overall satisfying leisure experience. It is clear that the perceptions that once limited leisure to strictly a designated time period or activity have progressed from a simplistic interpretation to a more accurate interpretation. Ultimately, any experience, moment or activity can become leisure if freely chosen and intrinsically motivated.

Benefits of leisure

The belief that leisure involvement results in a wide range of benefits for the individual participating is not a new concept. This section will briefly review the benefits of leisure for society as well as the individual.

The National Recreation and Parks Association has adopted a portion of the Declaration of Independence (“ The Pursuit of Happiness....an Inalienable Right ”) to educate and enhance awareness of the importance of recreation to society as a whole (NRPA, 1996). The campaign is called “Parks and Recreation, the Benefits are Endless” (NRPA, 1996). The United States is not the only country to launch a nation wide campaign addressing leisure. Both the United States and Canada categorize benefits of leisure in four areas: (1) benefit to the community- leisure can increase community pride; (2) benefit to the environment - leisure involvement in more primitive forms of recreation can promote an environmental ethic; (3) benefit to the economy - leisure participation in tourism supplements communities economically; and, (4) benefits for the individual - leisure improves overall quality of life.

As stated previously, the type of activity or experience an individual pursues is typically a result of personal motives and can be either based on physical or psychological needs. These benefits have been categorized or clustered in many ways and include opportunities for: (1) relaxation; (2) improved health; (3) enhancement or development of relationships; (4) competition; (5) creativity; (6) self-expression; (7) cognitive stimulation; (8) increased self-esteem; (9) enhanced physical skill and ability; and, (10) greater confidence (Baack & Smith, 1994; Driver, Brown & Peterson, 1991; Tinsley & Eldredge, 1995).

Beyond these specific needs, Wankel (1994) suggests that leisure should result in enjoyment of some kind. For example, individuals have explained that the activity is less important than the quality of the experience, change in routine and personal time the activity affords them (Green, Hebron & Woodward, 1990). In summary, perhaps the

most important concept is that leisure has proved to be an overall contributor to quality of life, over all satisfaction and mental health (Henderson, 1996; Tinsley, Barrett & Kass, 1977).

Factors of choice and constraint

The previous sections have presented the fundamental concepts for an accurate understanding of leisure. First, is that of the benefits that result from leisure. It is ambitious at most, to accurately try to describe the potential outcomes inherent to leisure. Leisure unveils itself time and again both as a resource over looked and one which potentially can shape and form positive behavior and experience in almost every home, classroom, work environment and community. This in and of itself validates the urgency in investigating whether this basic component of quality of life is less accessible and received by women as a whole. Secondly, perceived competence; state of mind; intrinsic motivation and freedom of choice have been presented as the common elements which prescribe leisure.

It is apparent from literature that to some extent, many individuals (men and women) experience other factors that create conditions which influence personal leisure choices such as: (1) time; (2) pressure of relationships and responsibilities; (3) economic availability; (4) availability of recreation programs; (5) society's attitude towards specific pursuits, and, (6) ones leisure or physiological needs. These following factors have been noted as influential in not only determining leisure choices but influential in determining involvement in more active forms of leisure as well: (1) one's physical and mental abilities and skills (2) knowledge and, (3) one's own philosophy of the importance of leisure and recreation. (MacLean, Peterson & Martin, 1985). In addition, these same conditions that are proposed to influence leisure choice have also been identified by

women as constraints to their participation. These conditions become constraints if they inhibit to prohibit a woman's ability to participate in leisure activities (Jackson, 1991 & Jackson & Henderson, 1995). The implications of constraints are that the amount of participation in leisure is restricted or participation in certain types of activities becomes restricted (Jackson, 1991; Shaw, Bonen & McCabe, 1991). Harrington and Dawson (1995) suggest that while both men and women experience constraints, they are not necessarily the same nor do factors associated with leisure choice affect women and men the same. The following section will explore various perspectives on how these factors potentially became constraints for women in their pursuit of leisure and more specifically, active forms of leisure. The factors listed above will be used as the structure for reviewing these ideas.

Time

Time as it pertains to leisure is defined objectively as "discretionary time-time that is left over after work and obligations (Harrington & Dawson, 1995; Henderson, 1995; Wankel; 1994)." Therefore, leisure could be considered involvement that is engaged in during discretionary time (Wankel, 1994). The "lack of time" is also one constraint repeatedly mentioned by women (Harrington & Dawson, 1995).

Coverman and Sheley (1986) found that men have more time for leisure than women (Firestone & Shelton, 1994). There are many explanations for this. One is that women in most cases are still the primary caretaker of children and household responsibilities (Deem, 1986; Jackson and Henderson, 1995). Kay (1996) offers one perspective which suggests that because of these responsibilities, a woman's time becomes fragmented. This fragmented time then makes it necessary for women to choose activities that will fit into shorter periods of time and require little planning or equipment (Bialeschki & Henderson, 1986; Harrington and Dawson, 1995). Women therefore might

become limited in their choice for a variety of leisure pursuits and restricted to only those activities that can be done in conjunction with household responsibilities (Firestone & Shelton, 1994). Some examples of the type of leisure activities that do not require women to leave their home are watching television, listening to music and reading.

Often time what is intended to be family leisure is not leisure for women at all because they spend much of the time working. For example, many outings away from the house require that women supervise children. Likewise during the holidays, many women can become overwhelmed with cleaning the house and meal preparations, especially if this responsibility is not shared.

A second possible reason why time becomes a constraint for women centers around the added responsibility of employment. Several authors suggest that women who work, have even less leisure because they take on dual responsibilities of work and home (Deem, 1996; Shaw, 1985). However, some women have indicated that work gives them more freedom because their time becomes more structured and they are exposed to more opportunities for leisure. Work also provides women opportunities to form relationships with possible recreation partners or to increase their awareness of what is available to them.

A third possible explanation is that women often feel that even if they have "time" for leisure, they do not feel entitled to leisure solely for themselves (Harrington & Dawson, 1985; Wearing & Wearing, 1988). These ideas and beliefs can also affect how women choose to use their free time. If this is the case, "time" can be an irrelevant issue for some women if they are reluctant to participate for other reasons (Henderson, 1995; Wearing and Wearing, 1988).

Pressure of relationships and responsibilities

According to Kay (1996) in order for women to experience well being in their lives, there must be a balance of work , family and personal activities/leisure. Even though both women's and men's leisure is influenced greatly by the relationships in their lives, this balance can be more difficult for some women. For instance, some women feel that they should give priority to others before themselves and thus have indicated that they do not participate in many forms of leisure because of the responsibility they feel towards their family (Jackson & Henderson, 1986; Russell, 1996). In addition many women have indicated that they also feel a lack of support from many of the relationships in their lives (Henderson, 1995). For example, some women have revealed that while they were once very active and involved leisurely, the lack of support they received after a change in lifestyle (marriage & children) disrupted their patterns of involvement (Deem, 1986). Russell (1996) suggests that women tend to see themselves as primarily family members and less as an individual.

Based on the definitions explored earlier, leisure is dependent on ones ability to exercise freedom of choice and it is clear that in some cases, women are not exercising freedom of choice (Wankel, 1994) . The pressure of relationships and the responsibilities associated with these relationships that women experience, can influence their ability to exercise this freedom of choice (Bella, 1989; Wankel, 1994).

Economic availability

Economic constraints have been reported as one issue that limits a woman's participation in leisure (Shaw, 1994). However, recent studies have revealed that employment for women directly affects their leisure opportunities by giving them more access and also increasing the feeling of power they perceive to have in their lives (Harrington & Dawson; Henderson, 1994b; Henderson, 1995; Kay, 1996). For example, some women feel that the money they make can be used for themselves instead of using

what they depend on someone else to provide. Often, the money that women receive from their husbands is allotted for housekeeping, food costs and children. Therefore independence made possible by employment could alleviate any guilt that might be associated with not having personal financial resources (Kay, 1996). This might help explain why employed women have indicated that after they have put in their time and earn their own money they feel somewhat more entitled to leisure (Henderson, 1995; Kay, 1996). Henderson (1994a) suggests that women who are not employed may feel they are not entitled to leisure because they do not have access to the monetary funds necessary to make some leisure pursuits possible. It is apparent that financial resources can be helpful but are only one piece of the puzzle. Financial resources can become irrelevant if women do not feel entitled to leisure or an ethic of care dominates their lives and prevents leisure all together (Harrington & Dawson, 1995).

Availability of recreation programs

One concern that has continually re-appeared for women has been the availability of recreation programs and facilities (Shaw, 1994). The extensive funding, programs and league opportunities available to men, as well as the consideration for scheduling has far exceeded that which is available to women (Shaw, 1994). One possible explanation for this is that historically, women have made fewer demands for activities. This perhaps explains why in many instances women, have received less than adequate consideration in programs and facilities (Henderson & Bialeschki, 1995).

There are several factors that affect women in regard to their needs for recreation programs and facilities (Henderson, 1989). For instance, some women feel that programs are scheduled at time that are inconvenient for them. In addition, some women indicate that there are activities that they would like to participate in but are not able to because the opportunity does not exist. This is perhaps most prevalent for women who have

moved beyond the college age and do not have the variety of opportunities made available through the university. Lastly, women who have children have indicated that some programs they wish to participate in, do not provide child care or do not recognize the scheduling issues that go hand in hand for mothers of children.

According to Henderson, the amount of programming for more active forms of leisure has increased and more women are participating. However, there are some women who might not access these opportunities. For instance, women of lower socio-economic status or poorer communities face serious challenges in accessing programs and facilities (Deem, 1986).

Society's attitude toward specific pursuits

Perhaps the most documented issue encompassing all aspects of the lives of women is gender identity (Desertain & Weiss, 1988; Goldberg & Chandler, 1991; Henderson, 1996; Jordan, 1992; Miller & Levy, 1996; Woodward, Green & Hebron, 1988). Henderson (1994a) describes gender as "a set of socially constructed relationships which are produced and reproduced through people's actions." Gender identity is said to primarily be a result of socialization (Jordan, 1992). Gender identity potentially can influence the cognitive development, behaviors, actions, interests, needs, and abilities of both males and females (Jordan, 1992).

First, women and girls both are exposed to external forces within their social environment. One example is the actions and behaviors that are displayed on television. Sometimes, these tend to be stereotypical and as a result influence values and attitudes associated with certain leisure involvements (Bandura, 1977; Shaw, 1994). The implications are that women might not recognize certain activities as possibilities for themselves or will be resistant to become involved in recreation pursuits because of the imposed societal views (Desertain & Weiss, 1988; Henderson, 1996; Miranda & Yerkes,

1982). Shaw (1994) suggests that women's participation in some leisure pursuits are still affected by traditional views of females in regard to what leisure activities are appropriate for them and what their perceived responsibilities are (Shaw, 1994). As a result, if women act out of gender related behaviors, their involvements could become limited (Henderson, 1994).

Social patterns, messages and opportunities seem to differ for children. For instance, young girls participate less in structured physically activity than boys of the same age, and therefore, miss out on gaining confidence and experience being physically active (Hall, 1978; Jordan, 1992). In addition, society has a tendency to encourage females to direct their efforts and energy into sports or physically active involvements that are aesthetic in nature rather than perhaps high risk or competitive activities (Dessertain & Weiss, 1988). The repercussion is that girls can be led to believe that they are not capable of being physically skilled (Jordan, 1992). In adulthood women could possibly begin to question whether their involvement in sports and athletic interests is valued (Deseratin & Weiss, 1988). Shaw (1994) provides a view point that women are influenced by the limited activities that are made available to them. For instance, sports and physical activity are seen as stereotypically male activities mostly because it has been men who have shown interest in these activities and who have been portrayed participating in these activities. Some of these activities might be wrestling, boxing, football, hockey but could included many more. In addition, these activities tend to be perceived as less feminine (Miller & Levy, 1996). It has been suggested that for the most part, females have been taught to place value on possessing certain characteristics such as quietness, supportiveness and helpfulness (Desertain & Weiss, 1988). Women possibly can become limited in the diversity of the activities made available to them. In addition, women must also find a balance between the roles of being feminine as well as their desire to be physically active and skilled (Goldberg & Chandler, 1991; Shaw, 1994).

Finally, society's attitude can influence the values that women possess toward physical activity. For example, Bialeschki and Henderson (1986) suggest that there has been some debate about whether women (especially those who are homemakers) need leisure because they stay at home which provides for more time for leisure as opposed to full-time work. While this idea might not be as prevalent today, there could still exist a societal expectation for women to make their family and home a priority (Bialeschki & Henderson, 1986). The roles women assume from society then dictate for them what is expected and what is appropriate (Desertain & Weiss, 1988). As a result, girls and women might become so bound by social roles that they never experience their potential and abilities. This accounts for not only their social and intellectual but leisure potential as well (Miranda & Yerkes, 1982). Weiss & Glenn (1992), make reference to a well recognized professional and advocate for women in sports, Dorothy Harris who stressed that it is the integration of socialization, personal characteristics, biological and physical parameters that impact participation behavior for females in sports. In summary, social roles and expectations can affect leisure choice thus restricting women from receiving the benefits of involvement (Shaw, Bonen, & McCabe, 1991).

One's leisure and psychological needs

Green, Hebron and Woodward (1987) suggest that some women have a difficulty defining the meaning of leisure. Some ways that women have defined leisure is, time that is spent on anything you enjoy, time for doing what you want and time doing anything but work (Green, 1987). According to Kay (1996), women vary in personal needs and in the activities which they pursue. One of the most reported reasons why women claim to participate in leisure is for socialization (Henderson, 1995; Kay, 1996). Other reasons for participation expressed by women include the desire to change certain aspects of their life. For instance, many women might desire to consciously improve their self esteem

(Frederick, Manning & Morrison, 1996). Some additional factors that women identified as reasons for participation in leisure include: (1) having the opportunity to be challenged; (2) improve well being; (3) improve the status and social aspects of their lives; (4) opportunity for change; (5) pleasure; (6) relaxation; (7) chance for accomplishment; and, (8) self expression (Clough, Shepard & Maughan, 1989; Green, Hebron & Woodward, 1987).

Women who are more interested in physically active pursuits tend to focus on benefits relating to health and fitness but also because of the possible benefits to their overall lifestyle and well being (Clough, Shepard & Maughan, 1989; Karoven, 1996). There may also exist a motivation that stems from societal pressures that suggest that women should be physically attractive and thin (Frederick, Manning & Morrison, 1996).

It appears that some women have a clear perspective of why they desire to participate in certain type of pursuits. For instance, women might participate in outdoor experiences that involve some amount of skills or risk because the experiences will better their self understanding, personal security and enhance personal potential (Miranda & Yerkes, 1982). There might also be specific characteristics that are usually stereotypically associated with males that women would like to develop such as competitiveness, independence or assertiveness (Desertain & Weiss, 1988).

Factors associated with determining physical activity

The following section will review literature relevant to the factors that have been suggested to influence choice as well as constrain women in their pursuit of more active forms of leisure. The three factors are: (1) one's physical and mental skills/abilities; (2) knowledge/experience; and, (3) one's own philosophy of the importance of leisure.

Physical and mental skills/abilities

One of the highest reported constraints for women is a perception on their part that they do not have the necessary skills needed to become involved in certain leisure pursuits (Jackson & Henderson, 1995). In an article on effective leadership for young girls, the area of skill development was highly suggested as a mechanism through which to increase activity level (Jordan, 1992). Many women indicate that they have an interest in a particular activity but also feel that they lack the necessary skills necessary to participate. This is especially true for more active forms of leisure that require knowledge of rules and comfort in the skills of the activity. Some women have indicated an expectation that providers of recreation programs teach the skills necessary for many physical activities and sports. The reason for this is because some women might avoid an activity if they feel their lack of physical abilities will be a hindrance to others (Henderson, 1995).

Lower participation has also been attributed to poor physical fitness. Marsh and Pearl (1988) suggest that this is a pattern that begins at adolescence. For example, there is a tendency for young girls to develop negative feelings about their physical ability and physical activity in general because they are not taught to be competitive and confident about their own physical competencies (Coles, 1980).

Body image has also been noted as a significant constraint for women who feel self conscious about their size, thus, refrain from certain physical activities. On the other hand, women who are more physically fit, feel they might risk sexual harassment from exposing their body (Deem, 1986). Regardless, women's participation can be affected by negative feelings about their physical appearance (Shaw, 1994).

In summary, Jordan suggests that males have an advantage over girls and women because they are influenced through society and opportunities given for participation in physical activities. An advantage that teaches them how to take more initiative in what they want and need in regard to their leisure experiences. Girls, however, have not been taught to the same extent to recognize their own capabilities or take the initiative to make

decisions that relate to their own personal well being (Jordan, 1992). This could be one reason why girls and women do not recognize physical activity as important and decide not to participate. As a result, women consistently feel less confident about their abilities and skills in some recreational pursuits and they tend to be afraid or reluctant to take risks or try new things (Henderson, 1996).

Knowledge

Knowledge can consist of whether or not someone has been exposed to an activity, has the necessary skills or is at ease and confident with attempting various activities (Parr & Oslin, 1998). According to research, at every age of development, beginning with childhood through young adulthood, individuals can be influenced by merely having opportunities to try a variety of leisure experiences (McDaniels, 1982). Experience and opportunity has been directly linked with creating the confidence needed to participate actively in sports later in life (Lirgg, 1992; Parr & Oslin, 1998). In a study completed by Kelly (1974) respondents reported that one half of current activities were begun during childhood and the other one half were begun in the adult years. Childhood recreation participation has been a predictor to participation for adults in the same type of activities (Iso-Ahola, 1980).

During childhood, parents are said to play an enormous role in influencing their children by their own behaviors, attitudes and leisure opportunities they provide (Dielman et al, 1982; Neulinger, 1980; Parker, 1976). In a study conducted by Miller and Levy (1996), children whose parents encouraged them in their leisure or athletic pursuits were more likely to become involved later with less gender role conflict. Miller and Levy (1996) discovered that female athletes, more often than not, came from families who had served as role models for athletic or leisure behavior. In summary, children who have

overall satisfying leisure experiences probably will pursue some form of leisure as adults more so than those who did not have leisure experiences at all (Brooks & Elliot, 1971).

It has also been suggested that it is beneficial for children and youth to be exposed to a wide range of recreation because of the impact on self concept, identity and perceived competence. These skills can later enable children and youth to be confident in pursuit of interests of all kinds (Brooks & Elliot, 1971; McDaniels, 1982; Neulinger, 1980; Parr & Oslin, 1998). A certain amount of fear and reservation can cause conflict for women if activities are associated with sex roles (Goldberg & Chandler, 1991; Miller & Levy, 1996). These concerns can be eliminated to some degree if young girls can be exposed to the activities at a young age (Brooks & Elliot, 1971; Snyder, Livlin, & Spreitzer, 1979). For instance, Henderson (1996) proposes that women who have had opportunity to participate in sports will have fewer problems continuing participation in the future.

The amount of academic education has also been linked to participation in a wider variety of leisure activities for adults (Goodale & Godbey, 1988 & Parker, 1976). Young adults who pursue college have the opportunity to be exposed to a variety of leisure experiences such as student union programs, campus music, intramurals, theater, drama, social programs, residence hall activities, academic clubs, intercollegiate programs (McDaniels, 1980).

Education does not necessarily rely on the academic institution, however. Recreation programmers also can provide for a variety of leisure experiences.

It has been recommended that sport participation and outdoor recreation are activities that all young people should be exposed to. Such exposure could increase abilities and interests but also increase the likelihood that these behaviors will continue for the duration of adulthood (Bialeschki & Henderson, 1986). The importance that past recreation experience may play for individuals, and more specifically women, is that

women can use this knowledge as a frame of reference to make decisions about their leisure and recreation behavior (Schreyer, Lime & Williams, 1984).

One's own philosophy of the importance of leisure and recreation

Attitude is another factor that has been associated with determining leisure activity, and more specifically, physical activity. Research has been directed towards understanding how attitudes and values relate to leisure in the context of everyday experiences (Shaw, 1994). Through leisure, individuals can also establish their own identity and define themselves by the interests they pursue (Henderson, 1990). Swedburg and Izso (1994) suggest that people will choose how to incorporate leisure activity into daily living. As adults, individuals are said to define their lives in three areas; work, family and leisure (Rapoport & Rapoport, 1975). In order for this balance to occur, leisure attitude and values must be formed (Neulinger, 1974). These values and attitudes, more often than not, are rooted in childhood experience (Neulinger, 1974). The family is a principal source for developing leisure attitudes and values during the developmental years (McDaniels, 1982; Parker, 1974) Leisure experiences that occur during childhood are said to produce the attitudes and habits that remain through adulthood (Malina, 1996; Parker, 1976).

Education is once again important at every stage of development because it prepares individuals to make the best use of their leisure time (Parker, 1976). Education influences attitude by increasing awareness and desire for leisure experiences (Godbey & Parker, 1976). Neulinger (1974) places great importance on the development of leisure attitudes because it allows individuals to fulfill his/her interests to the fullest, free from social stereotypes. The attitude that is associated with leisure is referred to as leisure ethic.

According to MacLean, Peterson and Martin (1985) having a leisure ethic means that leisure is valued as a contributor to life and is seen as equally important as work, not an alternative to, but as a complement to work. Leisure ethic is valuing the potential that leisure has in creating dignity and worth for the individual and society. In addition, it represents a belief that leisure benefits society and the individual (MacLean, Peterson & Martin, 1985).

Shaw (1994) reports that what is challenging to women in regard to leisure ethic is that many women feel that they do not have a right to leisure. Meeting their own leisure needs or needs in general, comes last because of the ethic of care that many women feel (Shaw, 1994). This idea affects how women choose to use their free time and, therefore, might cause them to be reluctant to participate (Henderson, 1995). Russell (1996) suggests that women consider leisure to be less important than other aspects of their lives. Not all women however feel this way (Deem, 1986). For instance, some women feel leisure is a avenue for choice in their lives (Henderson, 1990). A study by Shaw (1996) revealed that some women do value leisure and will seek out time to pursue their interests. It is also not clear how and to what extent constraints affect leisure ethic. Leisure participation is said to occur when there is a balance between constraints and motivation (Jackson, Crawford & Godbey, 1993). Therefore, leisure ethic may be the motivation that allows the balance or negotiation to occur. Many would agree that for women to choose to participate, they must first value leisure and more specifically, physical activity (Koehler, 1994).

Physical activity and women

Physical activity for women can encompass a wide range of activities such as organized sports, unorganized sports, competitive involvement, non-competitive involvement, indoor physical recreation and outdoor recreation. As stated in the

introduction, it has been recognized for some time that it is these more vigorous physical activities in which women have been least represented, least involved, and with lower participation rates as compared to men (Green, Hebron & Woodward, 1990). The following section will review literature related to these areas; the visibility of women in physical activity, the benefits to be gained from involvement, and existing factors still facing women in regard to their participation and opportunity.

There are many positive things to be said about the progress that has been made thus far for women in many realms of physical activity. Twenty six years from the time Title IX was passed, more women are able to pursue sport participation into the collegiate level and into the professional circuit. Title IX is still influential in cases such as the civil rights case concerning Brown University and funding for the continuation of some women's collegiate sports. In this particular case, the University attempted to prove that women were less interested in competitive sports than men in order to justify the discontinuation of support for certain sports (gymnastic and volleyball) because of available funding. The courts found Brown University in violation of Title IX and also emphasized the purpose of Title IX. The judge stressed that Title IX was not contingent on whether the same amount of women appeared interested and took advantage of sports as men but rather existed to insure that the opportunities were made available. That is truly the essence of this educational amendment which been attributed to the remarkable growth in involvement by women in various forms of sports and physical activities (Naughton, 1996; Naughton, 1997).

There are of course, other variables that have furthered the involvement of women in many forms of physical activity. Koehler (1994) attributes this to advances in the clothing reform, right to control pregnancy, the active role women now play in society (professionally and politically) and those women who have been able to overcome social myths and restrictive value systems. These changes have been instrumental in the pursuit of physical activity for all women, especially in the pursuit of personal leisure

involvement. Without a doubt, physical activity extends beyond competitive realms and into the daily lives and behaviors of women.

As discussed previously, women have been least recognized in non-domestic leisure. Both sport activities and outdoor activities have been classified as non-domestic leisure meaning then that this involvement requires that women leave the home and some amount of planning and time investment is needed (Firestone & Shelton, 1994). In a study conducted in Milton Keynes in 1980 and 1981, the results revealed that social class, age, life cycle, friendship and employment status were all determinants of leisure experiences that took place outside the home (Deem, 1986). Likewise, similar results were found in the Sheffield study, in which women who were physically active were also young (under the age of thirty-five), employed, had some form of higher education and were of the middle class economic status (Green, Hebron & Woodward, 1990). In that same study on gender and leisure, physical activities most participated in by women were yoga, aerobics, swimming, badminton, tennis, squash and running or jogging (Green, Hebron & Woodward, 1990). Activity levels seem to change in reference to age. For example, women who are under the age of thirty, on average, appear to be more active than women over the age of thirty-five (Green, Hebron & Woodward, 1990). In addition, organized sport opportunities tend to become less available for women reaching their thirties and above (Deem, 1986). Single women also seem to be more active than women who are married (Green, Hebron & Woodward, 1990). A recent study revealed that those who are involved in sports also find outdoor activities popular (Hendon, 1991). Bialeschki & Henderson (1993) reported from the U.S. Bureau of the Census in 1991 that the number of women involved in physical activities such as backpacking, camping, riding bicycles, fishing and skiing equals or exceeds that of men participating in these activities. Henderson (1992) provides a definition for outdoor activities as being activities that require some sort of physical challenge and includes activities such as camping, hiking, rock climbing, water activities or cross country skiing.

Regardless of the participation type, women have much to gain from physical activity. Hand in hand with having the right to pursue physical activity, Koehler (1994) stresses that every women should be educated on the health and wellness benefits made available through active participation in physical activity. These benefits can either be mental or physical, both of which help to make women strong (Koehler, 1994; O'Brien, 1996).

There are no doubts about the physical benefits that result from physically active pursuits such as the contribution to improving the function of various systems in the body and decreasing the chance for degenerative diseases (Malina, 1996). Wankel (1994) suggests that how an individual utilizes their free time can play a role in warding off illness and increases longevity of life. In addition, participation improves physical appearance and overall health, reduces anxiety, releases nervous tensions, lessens the chance for depression, decreases the chance for obesity, provides a means for weight maintenance and improves the overall quality of life, health and wellness (Koehler, 1994; Malina, 1996, Wankel, 1994). Women have also gained avenues for self expression, self discovery and increased self esteem and confidence through physical activity (Koehler, 1994)

Sport and physical activity has historically been attributed to producing characteristics such as competitiveness, self discipline, sacrifice for the good of a group, teamwork, dedication, loyalty, concentration, strength, endurance, judgement, loyalty, ability to handle stressful situations and perseverance. All of these tools and skills were viewed as being of great value to men in preparation for success in society and in the work force (Koehler, 1994; Miner, 1992). On the other hand, women have consistently received status more for sexual attractiveness and beauty and thus were regarded as unprepared and inferior for the work force because they did not possess the skills that involvement in physical activities and sports provided (Koehler, 1994; Miner, 1992)

Some of the described benefits given by women for active participation in the outdoors are that they can be free from gender-imposed roles, experience an improvement in self respect and self-esteem, feel more self confident, be able to learn about themselves, overcome self doubt and have an overall feeling of well-being (Bialeschki & Henderson, 1993; Henderson; 1992). Henderson (1992) suggests that the benefits that women can receive from outdoor involvements are similar to the benefits that they might receive from any other physically active leisure pursuit.

There are still challenges that face women and girls in regard to opportunities in physical activity. It is clear from research and literature that although more opportunities exist, accessing them is still a barrier to many women. There continues to be debate in the minds of some about the appropriateness of some forms of activities especially those that are more competitive field events and those activities that require bodily contact (Koehler, 1994). However, adolescents and young women who are involved in sport activities might later be encouraged to continue this type of participation and resist ideas that more physical interests are not suited for females (Shaw, 1994). There is evidence that women receive psychological benefits when they are able to challenge ideas that certain pursuits are more male oriented by actively participating and becoming involved (Shaw, 1994). Miner (1993) suggests that sport and physical activities carry their own societal values, beliefs and norms for behavior, a process that begins at birth and greatly influences the behaviors later in life. According to Iso-Ahola (1980), part of this socialization process is the value and meaning a person places on leisure and recreation, whatever its form.

Swedburg and Izso (1994) suggests that pursuing leisure in such a way as to be considered active means that physical activity is valued and then integrated into daily life. The idea of active living that is stressed in Canada focuses on the whole person, a person with physical, mental, social and spiritual needs (Wankel, 1994). Koehler (1994) calls attention to what may be the first priority which is a need for women to value physical

activity and choose to participate based on that personal value. Things like personal initiative, choice, and meaningful involvement on the part of the women, in a broad range of leisure skills can contribute to the holistic quality of their lives and improve well-being (Wankel, 1994). The focus or motivation should not be on the prevention of diseases but rather pursuing involvement because of the desire to maintain and enhance their well-being (Kanters and Montelpare, 1994).

In 1981, an extensive nationwide study of the physical activity of Canadian women yielded interesting results. First, 55% of Canadian girls and women over the age of 10 were physically active as a form of leisure (Canadian Lifestyle and Fitness, 1983), however, the amount of physical activity decreased with age which resulted in a more sedentary lifestyle. The study also revealed that the following physical activities were participate in most by women and girls: (1) swimming; (2) walking; (3) jogging/running; (4) ice skating, and, (5) tennis. Canadian females were also able to indicate which activities they did not currently participate in but would like to. For instance, some of those activities were: (1) swimming; (2) bicycling; (3) jogging/running, and, (4) cross country skiing.

The study also revealed motives and attitudes surrounding participation in physical activities. The significant issue for women in regards to their attitudes towards physical activity is that women's attitudes sometimes differ than the attitudes of men. For example, many women will report health or weight related reasons for participation rather than pleasure of competition (Canadian Lifestyle and Fitness, 1983). In the Canadian study, the two most reported reasons that women chose to participate in physical activities were to feel better and to control weight.

The Canadian study also explored various obstacles that might hinder participation. Women indicated that "more time" and "recreational partners" would increase their participation.

In this last chapter, many issues concerning women have been discussed. However, this in no way covers every aspect of leisure for women. This paper is specifically interested in the physical activity that women take part in for leisure. In summary, it is clear that leisure and participation in various forms of physical activity is of great benefit for women. There are many reasons why women choose to participate and equally, if not more reasons, that appear to inhibit their participation. Based on the literature, the same factors that affect choice positively can work negatively to prevent such experiences. These constraints perhaps hinder participation and the extent of activity for women.

Research also reveals that there are increasing opportunities for women yet further research will reveal how active women truly are and they perceive their experiences. There are many reasons why women might choose to participate or not to participate in active forms of recreation in their leisure time. As indicated in the Canadian Fitness Survey, exploring the physical activity levels of women is useful in revealing their interests, habits, obstacles and benefits. Synonymous with the Canada Fitness Study, the intention for this study is to address activity levels, inhibitors of participation and the motivations behind participation for women.

CHAPTER III

METHODS AND PROCEDURES

There has been more and more literature directed toward exploring the leisure experience in the lives of women. This has included research aimed at examining many variables that might potentially influence and limit opportunities for leisure. One of the specific areas addressed by research has been women's participation in more active leisure pursuits. The purpose of this study was to examine and explore various factors in regards to women and the presence of physical activity as a component in their lives. Utilizing descriptive research in a survey format, women were asked to indicate the extent of participation in physical activity weekly, in the last month and in the last year. Women were also asked to indicate the reasons why they choose to participate as well as factors that they felt limited the extent of their participation. In addition, women were asked to identify specific physical activities they would like to participate in more and activities in which they had discontinued and why. Lastly, women were asked to indicate their past experience and exposure to physical activities.

Preliminary Procedures

Those procedures which occurred prior to the collection of data have been termed preliminary. The sequence of preliminary procedures for this study included: (1)

selection of the instrument, (2) selection of the population sample, and, (3) request and approval from the university.

Selection of the Instrument

The Canadian Fitness Survey was chosen as the instrument for this study. This particular instrument had been utilized extensively in a nation wide study of the fitness level of Canadians. Although this research does not address fitness levels, the instrument thoroughly examined the areas of interest to the researcher and many of the ideas expressed in the literature review. The instrument also utilized a very extensive and thorough list of physical activities which was useful in this study. Each subject completed a questionnaire with specific questions addressing involvement in physical activity, barriers to participation and past experiences. The questions originated from the survey created by the Canadian Fitness and Lifestyle Research Institute in 1981. The Canadian Fitness Survey developed the questionnaire to be used in research on the overall physical fitness and activity patterns of Canadians and resulted in reports and publications pertaining to women only. This information was also valuable to this research project in order to compare certain aspects of the Canadian study to this research project which unitized the same instrument.

In its original form, the survey was divided into 3 categories: (1) activity; (2) fitness; and, (3) motivation and attitudes. The activity portion of the survey allowed women to report activity level by the following indicators: frequency, duration and energy expenditure for specific physical activities. This portion of the survey calculated

whether women were active, moderately active or sedentary. In addition, it indicated what specific activities women had an interest and were currently participating in. The fitness portion of the survey uses a standardized test to assess cardiovascular fitness, grip strength, muscular endurance and flexibility. This portion of the instrument will not be used. While the results would be meaningful, it did not directly relate to the specific purpose of this study.

The final portion addressing motives and attitudes, allowed women to indicate specific reasons why they participated in physical activity, the benefits they desired, and conditions that hinder participation.

Only the first and third parts of the instrument were used for the purposes of this research. Twenty three of the forty three questions were used as well as one additional question developed by the researcher (See appendix B, question 24) Additionally in the Canadian Fitness Survey, women were given an activity card which listed one hundred and eight physical activities from which they could refer. This will also be used (See appendix C). Although not every question on this portion of the survey is relevant to the hypotheses, it was the decision of the researcher to leave the instrument in its original form.

Selection of population sample

Selected subjects for this study were all women working or living in and around Georgetown, Texas. The subjects were not randomly selected but were identified because of involvement in clubs, organizations and programs. Approximately 500

questionnaires were either mailed or hand delivered to women. One-hundred and sixty-five women were identified as faculty or staff at Southwestern University and received a survey through campus mail with a cover letter, directions and informed consent. Ten of the one-hundred and sixty-five given were returned from this population. A group of fifty women involved in an organization for mothers of pre-school children also received a survey after a short presentation and a request for participation by the researcher. Approximately 10 surveys resulted from this group. In addition, first time participants in a newly formed soccer league were given a short presentation and request for participation. This was the most formal of occasions in which twenty women who agreed to participate, all completed the survey simultaneously in the presence of the researcher. The remaining 200 questionnaires were distributed to women observing their children in recreation programs or who came in and out of various city facilities. These remaining questionnaires also included women who worked in various departments of the city government such as library services, finance and human resources. Forty-eight of these women completed and returned the survey. Approximately 12 of the women who represent the final group completed the survey on site with the researcher and the remaining took the instrument home and then returned it. There was no formal letter or reminder card sent to any of the women to encourage the completion of the questionnaire. Some informal reminders were given.

University approval

Approval to conduct the study was obtained from the Institutional Review Board at Oklahoma State University in Stillwater, Oklahoma (see appendix E).

Operational Procedures

Those procedures which occurred during and after the collection of data have been termed operational. The sequence of operational procedures for this study included: (1) treatment of the data and (2) data analysis

Treatment of the data

All of the data were entered into a computer program called SPSS. The type of data was in the form of nominal data, indicated likert scale, check list or hand written in spaces provided by the instrument. All of the questions received codes and were entered in the computer system using these codes. Questions twelve and thirteen allowed the respondent to write in an "other" response. These responses were compiled by hand by the researcher but not coded or put into the statistical analysis. Questions fourteen and fifteen also allowed the respondent to indicate responses by hand writing their answer. These responses were all compiled, assigned categories and then each category received a number to be to be represented nominally. The final question (28) utilized a check list. Each item in the check list was entered into the program as nominal data, receiving a number to identify the activities.

Analysis of Data

Appropriate statistics were applied to the data including percentages, t-tests and other descriptive statistics. Descriptive statistics will reveal means, ranges and frequency tables. Percentages were used to reveal frequency distributions cumulatively.

Comparative statistics were used to compare responses for age groups, levels of education, marital status and employment status. T - test's will be used to calculate differences in responses.

CHAPTER IV

RESULTS AND DISCUSSION

The purpose of this study was: (1) determine the extent of physical activity by women as a leisure choice; (2) to identify the type of physical activities women are involved in; (3) to identify motives and constraints for participation in physical activity by women; and, (4) investigate any relationships between the subjects activity levels, reasons for participation, constraint to participation and past recreation experience. Data were obtained using a research instrument designed by the Canadian Fitness and Lifestyle Research Institute. Approximately five hundred questionnaires were distributed to women in the Georgetown, Texas area. Of the five hundred questionnaires distributed, 78 were completed and returned. The response rate varied from question to question and will be addressed more specifically for each question. The findings in this study are presented in four sections: (1) demographic information of the survey participants; (2) frequency tables on general information; (3) results of statistical analysis and testing; and, (4) discussion.

Demographic Information

Five demographic characteristics were analyzed including: age, marital status, level of education, employment status and family income.

Age

Among the seventy-eight respondents, the mean age was 38 years old. The ages ranged from 20 to 59 and were divided into two categories. Forty-nine (N=49) women were between the ages of 20-39 and twenty-nine (N=29) were between the ages of 40-59. (Table 2)

TABLE 2
FREQUENCY AND MEANS
OF AGE GROUPS

Groups	Age	Frequency (N)	Mean
Total	20-59	78	38
Sub-group	20-39	49	32
Sub-group	40-59	29	48

Marital Status

Of the 78 respondents, seventy-eight percent of the respondents were married (N=61), while thirteen percent (N=10) were single. The other nine percent (N=7) were either divorced or separated. (See table 3)

TABLE 3
 FREQUENCY AND PERCENTAGE OF
 MARITAL STATUS

Marital Status	Frequency (N)	Percentage (%)
Married	61	78
Single	10	13
Divorced/Separated	7	9

Highest Level of Education

Of the seventy eight respondents, all indicated that they had some education above the elementary level. Six percent (N=5) indicated that the highest level of education received was some secondary education. Three percent (N=2) indicated that the highest level of education received was a secondary diploma. Fourteen percent (N=11) indicated that the highest level of education was a post secondary diploma. Three percent (N=2) indicated that the highest level of education they had was a community college diploma. Sixty eight percent (N=53) indicated that the highest level of education was one or more university degrees. (See Table 4)

TABLE 4

FREQUENCY AND PERCENTAGE OF
HIGHEST LEVELS OF EDUCATION

Highest Level of Education	Frequency (N)	Percentage %
Some Secondary	5	6
Secondary Diploma	2	3
Some Post-Secondary	11	14
Post-Secondary	5	6
Community College Diploma	2	3
One or More University Degrees	53	68

Employment Status

Respondents were able to choose any of the following categories that applied regarding their employment/work status ranging from part time employment to full time homemaker. (See table 5)

TABLE 5

FREQUENCY AND PERCENTAGE OF
EMPLOYMENT STATUS

Employment Status	Frequency (N)	Percentage (%)
Retired	3	4
Employed Full Time	48	62
Employed Part Time	16	20
Student Full Time	1	1
Student Part Time	1	1
Homemaker Full Time	23	30
Homemaker Part Time	18	23
Unemployed/On Strike	0	0

Families Total Income Last Year

Seventy-six respondents indicated their family income last year. Two individuals indicated that they did not know. Eighty-six percent (N= 67) of the respondents fell into the over \$35,000 category. (See Table 6)

TABLE 6
FREQUENCY AND PERCENTAGE OF
FAMILY'S TOTAL INCOME LAST YEAR

Income range	Frequency (N)	Percentage (%)
Less than \$5000	1	1
\$5000-\$9000	1	1
\$10,000-\$14, 999	0	0
\$15,000-\$24, 999	2	3
\$25,000-\$29,999	2	3
\$30,000-\$35,000	2	3
Over \$35,000	67	86
Don't Know	2	3

Frequency Distributions of General Information

Activity Levels - Overall and for Age Groups (20-39; 40-59)

The following formula was used to determine if respondents were active, moderately active or sedentary:

Active	an average of at least three hours of leisure time physical activity per week for at least nine months a year.
Moderately Active	less than three hours of physical activity per week for at least nine months a year. <i>or</i> an average of at least three hours of physical activity per week for less than nine months a year.
Sedentary	less than three hours of physical activity per week for less than nine months a year.

Canada Fitness Survey. (1984). *Changing Times: Women and Physical Activity. A joint report by Fitness and Amateur Sport-Women's Program and Canada Fitness Survey.* Canada Fitness Survey: Ottawa.

Respondents were asked to indicate the activities that they participated in weekly. The questionnaire asked for respondents to indicate the amount of time they spend in light and heavy housework. These answers were not used in the calculation of physical activity. Only activities that respondents selected from the activity reference card were used for the calculation of activity levels. According to the formula, forty-two percent (N=33) were determined active. Twenty percent (N=16) were determined moderately active and thirty-seven percent (N=29) were determined sedentary based on weekly activities. For the age group, 20-39, thirty-seven percent (N=18) were active, twenty-eight percent (N=14) were moderately active and thirty-five percent (N=17) were sedentary. For the age group, 40-59, fifty-two percent (N=15) were active, seven percent (N=2) were moderately active and forty-one percent (N=12) were sedentary. (See table 7).

TABLE 7

ACTIVITY LEVELS AND PERCENTAGES FOR
OVERALL SAMPLE AND AGE GROUPS

Activity Levels	Ages 20-39	Ages 40-59	Overall	Percentages (%) Overall
Active	18	15	33	42
Moderately Active	14	2	16	20
Sedentary	17	12	29	37

Respondents indicated a variety of physical activities as choices for weekly and monthly involvement. Respondents were asked to not repeat the activities they reported for weekly involvement in the monthly category. Respondents utilized the reference card to choose the activities they participate in. The following graphs will indicate the most popular activities for both weekly and monthly participation for all ages overall and the two age groups. Seventy-eight percent (N=58) respondents reported at least one weekly activity while twenty-six (N=20) respondents did not indicate any weekly activity. Fifty-one percent (N=40) respondents reported at least one monthly activity, while forty-nine percent (N=38) respondents did not indicate any activity within the last month.

TABLE 8

MOST REPORTED WEEKLY ACTIVITIES OVERALL AND BY AGE GROUPS

Overall	Ages 20-39	Ages 40-59
Walking for Exercise	Walking for Exercise	Walking for Exercise
Weight Training	Weight Training	Walking Upstairs
Home Calisthenics	Exercise Classes	Exercise Classes
Exercise Classes	Running	Home Calisthenics
Walking Upstairs	Walking Upstairs	Soccer
Soccer	Home Calisthenics	Bicycling
Jogging	Jogging	Weight Training

TABLE 9

MOST REPORTED ACTIVITIES IN THE LAST MONTH OVERALL AND BY AGE GROUPS

Overall	Ages 20-39	Ages 40-59
Yard Work	Yard Work	Bicycling
Walking for Exercise	Walking for Exercise	Weight Training
Bicycling	Bicycling	Walking for Exercise
Home Calisthenics	Roller Blading	Yard Work
Weight Training	Home Calisthenics	Home Calisthenics
Roller Blading	Camping Prepared Grounds	Modern Dance

Involvement in Physical Activity
Within the Last Year

Respondents were able to indicate their involvement in twenty pre-determined activities that will be shown below by activity name and frequency of participation indicated by respondents. (See Table 10) Respondents were also able to indicate any other activities they participate in during the last year. Some of the more frequently

reported activities were: hiking, water-skiing, swimming at the beach, soccer, volleyball, frisbee, fishing and bowling.

TABLE 10
 FREQUENCY AND PERCENTAGES RELATING TO
 PARTICIPATION IN ACTIVITIES IN THE LAST YEAR
 FOR ALL RESPONDENTS

Activity	Frequency (N)	Percentages (%)
Walking for Exercise	32	41
Jogging	13	17
Running	6	8
Bicycling	21	27
Home Exercise	23	30
Exercise Classes	13	17
Weight Training	12	15
Yoga	2	3
Golf	7	9
Racquetball	2	3
Squash	1	1
Tennis	13	17
Baseball	2	3
Softball	5	6
Ice Hockey	0	0
Curling	1	1
Swimming	36	46
Cross Country Skiing	2	3
Down Hill Skiing	5	6
Ice Skating	5	6

Reasons for participation during
 one's leisure time

Respondents were asked to indicate how important 10 reasons for participation in physical activity were to them. Respondents indicated this on a Likert scale ranging from

1 (very important) to 4 (of no importance). The following table indicates the number of women who chose each reason and the mean for the scores. (See table 11)

TABLE 11
MEANS FOR REASONS FOR PARTICIPATION
IN PHYSICAL ACTIVITY

Reason	Frequency of Response (N)	Scale	Mean
To feel better mentally and physically	78	Very Important	1.12
To control weight or to look better	77	Very Important	1.5
To relax or reduce stress	78	Very Important	1.8
For pleasure, fun or excitement	75	Very Important	1.8
To move better or to improve flexibility	78	Very Important	1.8
As a challenge to my abilities	77	Some Importance	2.25
To be with other people	77	Some Importance	2.4
To learn new things	77	Some Importance	2.6
Because of fitness specialist's advice for improving health in general	76	Some Importance	2.93
Because of doctor's orders for therapy or rehabilitation	76	Little Importance	3.38

With whom do you usually do your physical activities in your leisure time

Respondents were asked to indicate with whom they usually did their physical activity with in their leisure time. All (N=78) respondents answered this question. (See table 12).

TABLE 12
 FREQUENCY AND PERCENTAGE FOR
 LEISURE PARTNERS

Participation Partner	Frequency (N)	Percentage (%)
No one	29	37
Friends	19	24
Immediate Family/Relatives	22	28
Co-Workers	4	5
Classmates at school	0	0
Others	4	5

When physically activity occurs

Respondents were asked to indicate only one choice for when their physical activity primarily takes place. All (N=78) respondents answered this question. (See table 13).

TABLE 13
 FREQUENCY AND PERCENTAGES FOR
 WHEN PHYSICAL ACTIVITY OCCURS FOR ALL RESPONDENTS

Occurrence of Physical Activity	Frequency (N)	Percentages (%)
Weekdays	20	26
Weekends	8	10
Both	50	64

At what time does your physical activity usually occur

Respondents were asked to indicate one or more choices for when their physical activity usually occurred. The two most frequent times that physical activity was reported to take place were during the morning and evening. (See Table 14).

TABLE 14
FREQUENCY AND PERCENTAGES
FOR AT WHAT TIME DOES
PHYSICAL ACTIVITY OCCURS

Time Frame	Frequency (N)	Percentage (%)
In the Morning	33	42
At Lunch time	9	12
In the afternoon	18	23
In the evening	32	41
At no special time	13	17

Where does physical activity usually occur

Respondents were asked to indicate one or more choices for where their physical activity usually takes place. Fifty-two percent (N=41) respondents indicated that home was the place that physical activity occurred the most. Forty-one percent (N=32) respondents indicated that a recreational facility was another location for physical activity. (See table 15).

TABLE 15
 FREQUENCY AND PERCENTAGES
 FOR LOCATIONS FOR PHYSICAL ACTIVITY

Location	Frequency (N)	Percentage (%)
Home	41	52
Park	15	19
Commercial facility or private club	9	12
Work	15	19
Recreational Facility	32	41
Outside using no special facility	19	24
School, College or university facility	8	10
Other	14	18

How long have you been doing some physical activity in your leisure time at least once a week?

Respondents were asked to indicate the duration of weekly physical activity. The data reveals that fifty-one percent (N=40) indicated that they have been participating in weekly physical activity for five or more years. Four respondents gave no answer for this question. (See table 16).

TABLE 16
 FREQUENCY AND PERCENTAGE FOR DURATION
 OF TIME FOR WEEKLY PHYSICAL ACTIVITY

Time period	Frequency (N)	Percentage (%)
I don't do any activity each week	9	12
For less than 3 months	2	3
From 3 months to just under 6 months	4	5
From 6 months to just under 1 year	4	5
From 1 year to just under 3 years	8	10
From 3 years to just under 5 years	7	9
Five or more years	40	51

Perception of fitness compared to others of own and sex

Respondents were asked to indicate whether they considered themselves to be more fit, less fit or as fit as others of their own age and sex. Seventy-one of the respondents answered this specific question. Seventy-two percent of the respondents indicated that they were either more fit or as fit compared to individuals of their own age and sex. (See table 17).

TABLE 17
FREQUENCY AND PERCENTAGE FOR
PERCEPTION OF FITNESS LEVEL

Fitness Level	Frequency (N)	Percentage (%)
More Fit	28	36
As Fit	28	36
Less Fit	15	19
No response	7	8

If you want to participate more in physical activities than you do now, why aren't you able to?

Respondents were asked to pick three conditions that hinder their participation in physical activity from a list of 12 possible reasons. Fifty-five percent of the women (N=43) chose "the lack of time due to work" as the number one reasons that hinder participation. The second most indicated reason was due to a lack of discipline and was chosen by thirty-one percent (N=24) of the respondents (See table 18). There were other reasons indicated by respondents in the "other" category and consisted of the following

responses: (1) family obligations; (2) lack of child care; (3) other family members involvement's in sports; (4) not enough time with my spouse with whom I exercise; (5) other home duties; (6) poor planning on my part; (7) lack of consistent cohort; (8) safety; (9); being with my family; (10) stress and a lack of discipline; (11) funds necessary to pursue more expensive leisure like skiing and diving; (12) husband won't work out with me; (13) sense of obligation to my family; (14) priorities, and, (15) can't find an adult league.

TABLE 18
 FREQUENCY AND PERCENTAGE FOR
 OBSTACLES TO PARTICIPATION

<u>Reason</u>	Frequency (N)	Percentage (%)
Lack of Time Due to Work	43	55
Requires to much discipline	24	31
Lack of Time because of other leisure activities	16	21
Lack of energy	11	14
I don't want to participate more	10	13
No facilities nearby	7	9
Costs too much	7	9
Lack the necessary skills	5	6
Available facilities are inadequate	4	5
Injury or Handicap	4	5
No leaders available	3	4
Ill Health	1	1

The responses for this question were also compared by activity levels. (See table 20).

TABLE 19

FREQUENCY AND PERCENTAGE FOR
COMPARISON OF OBSTACLES
BY ACTIVITY LEVELS

Obstacles	- Don't want to participate more		
	Activity Level	Frequency	Percent
	Active	5	15
	Moderately Active	1	6
Obstacle	- Ill Health		
	Activity Level	Frequency	Percent
	Active	1	3
	Moderately Active	0	0
Obstacle	- Injury or Handicap		
	Activity Level	Frequency	Percent
	Active	2	6
	Moderately Active	0	0
Obstacle	- Lack of Energy		
	Activity Level	Frequency	Percent
	Active	3	9
	Moderately Active	1	6
Obstacle	- Lack of time because of work or school		
	Activity Level	Frequency	Percent
	Active	19	58
	Moderately Active	7	44
Obstacle	- Lack of time because of other leisure activities		
	Activity Level	Frequency	Percent
	Active	6	18
	Moderately Active	3	19
Obstacle	- Costs too much		
	Activity Level	Frequency	Percent
	Active	3	9
	Moderately Active	3	19
	- Sedentary		
	Activity Level	Frequency	Percent
	Sedentary	1	3

Obstacle**- No facilities nearby**

Activity Level	Frequency	Percent
Active	2	6
Moderately Active	3	19
Sedentary	2	7

Obstacle**- Available facilities are inadequate**

Activity Level	Frequency	Percent
Active	3	9
Moderately Active	4	25
Sedentary	0	0

Obstacle**- No leaders available**

Activity Level	Frequency	Percent
Active	1	3
Moderately Active	2	13
Sedentary	0	0

Obstacle**- Requires too much self discipline**

Activity Level	Frequency	Percent
Active	8	24
Moderately Active	3	19
Sedentary	13	45

Obstacle**- Lack the necessary skills**

Activity Level	Frequency	Percent
Active	3	9
Moderately Active	0	0
Sedentary	2	7

If you wanted to participate more in physical activities, which of the following would increase the amount of physical activity you do?

Respondents were asked to indicate what factors would increase their amount of participation in physical activity. Respondents could pick three reasons from a list of a possible 13 reasons. The number one condition that would increase their amount of physical activity was “more time.” Forty women (51%) chose this as a condition that would increase participation. The second most indicated reason was “common interests

of family.” Twenty seven percent (N=21) of the respondents chose this as a condition that would increase participation. (See table 20).

TABLE 20
FREQUENCY AND PERCENTAGE OF
CONDITIONS THAT WOULD INCREASE PHYSICAL ACTIVITY

Conditions that might increase amount of activity	Frequency (N)	Percentages (%)
More leisure time	40	51
Common interest of family	21	27
Common interest of friends	14	18
People with whom to participate	13	17
Organized sports available	11	14
Less expensive facilities	10	13
Fitness test with personal activity program available	9	12
Employer or union sponsored activities available	9	12
Organized sports available	8	10
Nothing	4	5
Better or closer facilities	1	1
Different facilities	1	1
More information on the benefits of doing physical activity	1	1

What is the main reason that you have stopped participating in an activity or that you haven't started a particular physical activity?

Respondents were asked to do two things: (1) indicate what activities they had stopped doing for some other reason than change of season; and, (2) to indicate what physical activities they would like to start in order to improve fitness and health. Sixty-two respondents opted to answer this question. There were numerous different activities that women indicated they had stopped and various activities that women indicated they

would like to begin. Some of the wide variety of responses included: (1) kickboxing; (2) yoga; (3) organized sports; (4) sculling; (5) lacrosse; (6) in-line skating; and, (7) backpacking. The respondents were also able to indicate either why they had stopped some physical activity or what was the reason they had not started a particular activity. The number one reason that had contributed to either stopping or not starting an activity was due to a lack of time. The following table will indicate all of the reasons that were indicated and the frequency in which they were mentioned. (See table 21).

TABLE 21

FREQUENCY
FOR INDICATED CONSTRAINTS TO
AND CONDITIONS THAT WOULD
INCREASE PARTICIPATION IN PHYSICAL ACTIVITY

REASON	Frequency (N)
Availability of Time	28
Lack of Motivation/Initiative	8
Change of Geographic Location	7
Availability of facilities	7
Cost	3
Health Reasons	5
Availability of Equipment/Lack of	5
Lack of skills/knowledge about activity	4
Obligation to Work	2
Lack of discipline	2
Lack of interest of enjoyment	2
Lack of recreational partner	2
Availability of programs/leagues/clubs	2
Availability of child care	2
Lack of stamina/endurance	2
Lack of energy	1
Other commitments/priorities	1
Environmental constraints	1
Not convenient	1
Obligation to my family/children	1
Lack of employee supported programs	1
Lack of confidence	1
Unhappy with physical attributes	1

Results of Statistical Analysis and Testing

Levels of Physical Activity By Age

Hypothesis # 1 states: There is no significant difference in levels of physical activity by age groups. (20-39; 40-59). Chi-square analysis was performed to determine if the demographic variable of age was associated with activity level. Chi-square analysis

indicated that there was no significant association between age groups and activity levels. Therefore, the researcher failed to reject hypothesis # 1. (See appendix D)

Levels of Physical Activity by Marital Status

Hypothesis # 2 states: There will be no significant association in levels of physical activity by marital status. Chi-square analysis was performed to determine if the demographic variable of marital status was associated with levels of physical activity. Chi-square analysis indicated that there was no significant association between marital status and levels of physical activity. Therefore, the researcher failed to reject hypotheses # 2. (See appendix D)

Levels of Physical Activity by Levels of Education

Hypotheses # 3 states: There is no significant association in levels of physical activity and levels of education. Chi-square analysis was performed to determine if the demographic variable of levels of education was associated with levels of physical activity. Women were divided into two groups: (1) those who did not have a university degree and (2) those with one or more university degree. Chi-square analysis indicated that there was no significant association between education and activity levels. Therefore, from the results of the chi-square output, the researcher failed to reject hypothesis # 3. (See appendix D)

Levels of Physical Activity by employment status

Hypotheses # 4 states: There is no significant association in levels of physical activity and employment status. Chi-square analysis was performed to determine if the demographic variable employment status was associated with levels of physical activity. Women were divided into two groups: (1) those employed full-time and (2) those who were not employed full-time. Chi-square analysis indicated that there was no significant association between levels of physical activity and employment status. Therefore, the researcher failed to reject hypotheses # 4. (See appendix D)

Reasons for participation by age groups

Hypotheses # 5 states: There is no significant difference in reasons for participation in physical activity by age groups. A t-test was used to test for significant differences in the constraints reported by the various groups of activity levels at a significance of ($p \leq 0.05$). The t-test indicated that there was no significant difference in constraints by groups of activity levels. Therefore, the researcher was unable to reject hypotheses # 5. (See appendix D)

Reasons for participation by levels of physical activity

Hypotheses # 6 states: There is no significant difference in reasons for participation by determined levels of physical activity. (active, moderately active, sedentary).

There were ten possible reasons for participating in physical activity during one's leisure time. For each reason, respondents could select from a scale ranging from 1-4, "1" being of great importance; "2" being of some importance, "3" being of little importance and "4" being of no importance. Each reason was analyzed separately using a one way analysis of variance based on the means of three activity levels as groups. Activity levels were determined using the Canada Fitness Survey's definition for physical activity (See distribution table 7) Those of significance were as follows: (1) Reason that stated, "to feel better mentally and physically" (2) Reason that stated, "because of a fitness specialist's advice for improving general health" and, (3) Reason that stated, "because of doctor's orders for therapy or rehabilitation." Tukey's HSD (honestly significant difference) was performed for one way analysis of variance of comparing means at a significance level of $p \leq 0.05$. The analysis of variance table for each of the three reasons will be shown in tables 22, 23 and 24. Any difference between the means for the other reasons for each group were not of any significance. (See table 22, 23 and 24).

TABLE 22

ANOVA FOR DIFFERENCE IN MEANS
IN GROUPS FOR REASON:
TO FEEL BETTER
MENTALLY AND PHYSICALLY

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F statistic
Between Groups	1.01	2	.5088	4.95
Within Groups	7.7	75	.1027	P=.0095
Total	8.7	77		

The total responses for all three groups accounted for only two different responses: (1) very important; and , (2) of some importance. The significant difference in means between activity levels for participation were tested at $p < 0.05$. Group one (active) had a means of 1.03. Group two (moderately active) had a means of 1.06 and group three (sedentary) had a means of 1.28. The results showed that there was some significant difference in how those individuals classified as active felt about this reason as compared to those that were classified as sedentary. The active group almost exclusively ranked this reason as of great importance. The sedentary group felt that is was slightly less important.

TABLE 23

ANOVA FOR DIFFERENCE IN MEANS
IN GROUPS FOR REASON:
BECAUSE OF A FITNESS SPECIALIST'S ADVICE
FOR IMPROVING HEALTH IN GENERAL

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic
Between Groups	9.88	2	4.94	5.93
Within Groups	60.80	73	.83	P=.0041
Total	70.67	75		

The total responses for all three groups ranged on the scale of one (very important) to four (no importance). The significant difference in means between activity levels of participation were tested at $p \leq 0.05$. Groups one (active) had a means of 2.8. Group two (moderately active) had a total means of 3.6 and group three (sedentary) had a total means of 2.69. The results showed that some significant difference in how those classified as sedentary felt about this question compared to those classified as moderately active. The sedentary group felt that this was of some importance in comparison to those classified as moderately active who felt this was of little importance. In addition, the active group also felt that this was of some importance as compared to the moderately active group who again felt this was of little importance.

TABLE 24

ANOVA FOR DIFFERENCE IN MEANS
IN GROUPS FOR REASON:
BECAUSE OF A DOCTOR'S ORDERS FOR
THERAPY OR REHABILITATION

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic
Between Groups	4.89	2	2.45	3.64
Within Groups	73	49.04	.6718	P=.0311
Total	75	53.93		

The total responses for all three groups ranged on a scale from 2 (of some importance) to 4 (of no importance). The significant difference in means between activity levels of participation were tested at $p \leq 0.05$. The active group had a mean of 3.5. The moderately group had a mean of 3.7. The sedentary group had a means of 3.0. Group three (moderately active) felt that this reason was of little importance compared to group two (sedentary) who felt this was of more importance. Therefore, the researcher rejected hypotheses #6.

Obstacles to Increased Activity by marital status

Hypotheses #7 states: There is no significant difference in conditions for increased physical activity by marital status. Chi-square analysis was performed to determine if the demographic variable of marital status was significantly associated with the amount of constraints chosen by women. Women were divided into two group: (1) those married and (2) those who were single, divorced or separated. Chi-squared analysis

indicated that there was no significant association between marital status and the number of obstacles chosen. Therefore, the researcher failed to reject hypotheses # 7. (See appendix D)

Obstacles to Increased Activity by levels of education

Hypotheses #8 states: There is no significant difference in conditions for increased physical activity by levels of education. Chi-square analysis was performed to determine if the demographic variable of education level was significantly associated with the amount of obstacles chosen by women. Women were divided into two groups: (1) those women who did not have a university degree and (2) those women with one or more university degrees. Chi-square analysis indicated that there was no significant association between level of education and the number of obstacles chosen. Therefore, the researcher failed to reject hypotheses #8. (See appendix D)

Obstacles to Increased physical activity by employment status

Hypotheses # 9 states: There is no significant difference in conditions for increased physical activity by employment status. Chi-square analysis was performed to determine if the demographic variable of employment status was significantly associated with the amount of constraints chosen by women. Women were divided into two groups: (1) those women who were employed full-time and (2) those women who were not. Chi-square analysis indicated that there was no significant association between

employment status and the amount of obstacles chosen. Therefore, the researcher failed to reject hypotheses # 9. (See appendix D)

Obstacles to Increased physical activity by determined levels of physical activity

Hypotheses #10 states: There is no significant difference in conditions for increased physical activity by determined levels of physical activity. (active, moderately active, sedentary) Chi-square analysis was performed to determine if activity levels were significantly associated with the number of constraints chosen by women. Activity levels were determined using the Canada Fitness Survey formula for physical activity. (See distribution table 17) Chi-square analysis indicated no significant association between activity levels and the number of obstacles chosen. Therefore, the researcher failed to reject the hypotheses # 10. (See appendix D)

Current activity levels and past recreation experience

Hypotheses # 11 states: There is no significant association between current levels of activity and number of past recreation opportunities. Respondents were asked to check from a list of ninety-eight choices, all the activities they had participated in prior to the age to twenty. The number of activities were accumulated for a total amount. Tukey's HSD was performed for one way analysis of variance to compare means for past recreation experience by all three groups of activity levels. (See table 25).

TABLE 25

ANOVA FOR AMOUNT OF
PAST RECREATION EXPERIENCE
COMPARED TO ACTIVITY LEVELS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F statistic
Between Groups	2663.2	2	1331.6	12.08
Within Groups	8268.3	75	110.24	P=.001
Total	10931.5	77		

The test results indicated that the active and moderately active group had no significant difference from each other but both had a difference from the sedentary group indicating that the active group and moderately group had more past recreation experience than the sedentary group.

Perceived fitness levels and Determined Fitness Levels

Hypothesis # 12 states: There will be no significant difference in the perceived fitness levels and determined activity levels of women (active, moderately active and sedentary). Chi-square analysis was performed determine if the there was any relationship between perceived fitness levels and the determined activity levels (active, moderately active and sedentary). Chi-square analysis indicated that there was no significant association between perceived fitness levels and determined levels of women. Therefore, the researcher failed to reject hypotheses #13. (See appendix D)

DISCUSSION

The discussion section of this chapter will present the results in response to the four initial objectives of this study.

The population for this study consisted of women between the ages of twenty and fifty-nine. The majority of these women were married, had at least one university degree and were in the income range of thirty-five thousand dollars and above. For the purpose of this study, the results are relevant to the population studied only and do not necessarily apply to women in other populations.

The first objective of this study was to define the activity levels of the women participating in this project. It is important to mention that there are many definitions or formulas that could have been used to determine levels of activity. The findings of this study reflect the Canada Fitness Survey definition only, a definition that does not take into account intensity levels. (See page 5).

Of the 78 women participating in this study, 42% were active, 20% moderately active and 37% sedentary. In the literature review, age, level of education, marital status and employment status were presented as four of many variables that possibly influence the extent of involvement of women in physical activity. In attempts to accurately describe the active, moderately active and sedentary women, these same variables were chosen as hypotheses for this study.

The 1983 Canadian study on women in physical activity revealed that those women between the ages of twenty and thirty-nine were only slightly more active than those women in the forty to fifty-nine age range. Green, Hebron & Woodward (1990)

also suggest that women, on average, become less active at age thirty-five and older. In this study, there were slightly more active and moderately active women between the ages of twenty and thirty-nine than those between the ages of forty and fifty-nine. (See table 7) However, Chi-square analysis indicated no significant difference between activity levels based on age.

In the Sheffield study, the women who were the most physically active were also under the age of thirty-five, employed, with higher levels of education and of the middle class economic status (Green, Hebron & Woodward, 1990). Likewise, based on the results from the Canadian study, women who were employed full time or students full-time tended to be more active than homemakers were. Chi-square analysis was performed to determine if there was any significant relationship between activity levels based on levels of education, marital status and employment status. There was no significant relationship found. These findings should be viewed, cautiously, however because of the weakness in distribution of the sample size. While these variables may influence the amount of physical activity present for women, the results indicate that there are possibly other variables that determine the amount of physical activity women engage in.

The second objective of this study was to identify the type of physical activities in which women currently participate and those which women participate in most frequently. This was explored by having women indicate the activities in which they engage weekly. Women also indicated the activities in which they had participated in during the last month and last year.

The results of this study and the results of the Canadian study on women and physical activity were fairly similar in their description of the type of activities in which women participate in the most consistently every week. The five activities most participated in were walking for exercise, gardening, bicycling, home calisthenics, and weight training. Walking for exercise was the most participated in activity overall and for both age groups. These same activities were also those most frequently participated in the last month as well.

The widest variety of activities participated in by women resulted from the section that asked for those activities women had occurred in the last year. Although overall participation in this category decreased. Literature has suggested that women have difficulty in accessing certain types of leisure (Shaw, 1994). Although women were able to indicate constraints to their participation, which constraints were associated with each specific activity was not investigated. In addition several publications aimed at describing the results of the Canadian study on women and physical activity placed the activities that women participated in the most in a section entitled, “most popular activities by women.” It is unclear if the activities that women participate in the most are a result of popularity or because of convenience. The result of this study did indicate that women on a whole participate in a wide variety of activities, some of which are participated in more frequently than others.

The third objective of this study was two-fold and included exploring the motivations for participation, conditions of choice and constraints for involvement in physical activity.

The literature has provided various perspectives on how well women identify their own leisure needs. Green (1987) suggests that women are unclear as to why they should participate in leisure. On the other hand, Henderson (1995) suggests that women indeed do have specific intentions behind their participation in leisure. In addition, literature also suggests that there are specific benefits that result from involvement in physical activity. These benefits could consist of any number of things such as a desire to improve health, learn a new skill, experience challenge or develop a personal characteristic of some kind (Miranda & Yerkes, 1982). In the Canadian study on women and physical activity, the number one reason given for participation in physical activity was to “feel better mentally and physically.” This same reason received the highest score by the sample of women in this study (See table 11). According to the results, of all the possible reasons for participation listed on the survey, only one was viewed as not important to women in their participation in physical activity. (See table 11). Based on the results, it could be inferred that this population does acknowledge and recognize the variety of benefits of involvement in physical activity. In addition, the benefit women receive to both their mental and physical health is the most important to them.

There was also an attempt made to determine if there were any differences in the importance of reasons indicated by women in the two age groups and activity levels. The results of the statistical test revealed that there was no significant difference in the type of reasons chosen by the women of different ages. The t-test was used for the analysis of this hypotheses even though one assumption of parametric statistics was violated, that of random sample. At closer look, even though some of the distribution were not normal, all of the homogeneity of variance tests were found non-significant. However, there were

significant differences in several reasons for those individuals in the three-activity levels (sedentary, moderately active, active). For instance, one possible reason for physical activity determined by the survey was, "to feel better mentally and physically." The significant difference appeared between the active and sedentary group. The active women almost exclusively felt this was very important. (See table 23). The sedentary group viewed this reason as slightly less important. This could indicate that those individuals who are not active do not perceive or acknowledge the mental and physical benefits of physical activity as well as those who are active.

The second and third difference appeared in response to very similar reasons: (1) because of a fitness specialist's advice for improving health in general and (2) because of a doctor's orders for therapy or rehabilitation (See table 23 and 24). For the first reason, the active and sedentary women felt that this was of some importance. The moderately active women, however, felt this was of little importance. The second reason yielded opposite opinions. The sedentary women felt that this reason was of little importance compared to moderately active women, who felt it was slightly more important. There are some inconsistencies when comparing the results of these two charts when the two reasons are so closely related. There may be any number of reasons why these differences occurred but were not investigated by this study.

The second part of objective three was to explore the various factors that create conditions that encourage participation in physical activity and those that constrain involvement. The survey asked women to choose three obstacles to their involvement in physical activity as well as three conditions that would increase their participation. There were also two similar questions in which women could answer with a written response

(See table 21). The most frequently written and chosen condition that would increase participation was the availability of time. The most frequently written and chosen constraint was a lack of time for leisure. Clearly this is supported in the literature as a major factor that influence the availability of leisure in general which then influences involvement in physical activity (Harrington & Dawson, 1995). It is easy to conclude that "time" is a significant constraint for women in regard to their participation in physical activity. There are, however, references made in the literature review suggesting that many other factors influence the way that leisure is included in the lives of women. For instance, the value women place on leisure in general can impact how and to what extent leisure is integrated into their lifestyle (Koehler, 1994) This study did not investigate whether women truly do not have time, the lack of time is a perception on their part or if the lack of time is a direct reflection of the value that they place on leisure and physical activity compared to other aspect of their lives.

Another constraint identified by some women was "the lack of time because of other leisure activities" (See table 18). Many of the written responses also seem to validate this. One woman wrote, "I don't share the same interests as those of my family members." Another woman wrote, "my leisure time is limited because of the time I spend involved in the leisure activities of my family members." One condition that women stated would contribute to increased participation was to have common interests among family members. In several instances, the literature suggests that family obligation seems to hinder women in regard to the extent of their involvement in leisure (Bella, 1990; Henderson, 1995; Russell; 1996). Often, what is intended to be leisure for the family is not a leisure experience for the woman (Green, Hebron & Woodward, 1987)

In addition, it has been suggested that women feel a very strong obligation to their family first (Jackson & Henderson, 1995). One woman gave this reason for her lack of participation in physical activity, "no time due to my sense of obligation to my family." This study did not investigate if women meant that their own leisure involvement limited them or if this limitation occurred because of the leisure involvement of others. However, based on the results of the research, women are limited in the amount of physical activity due to the relationships in their lives. Another written response came from a woman who expressed an interest in beginning to swim, however she gave the following reasons for not participating, "I don't like the way I look in a bathing suit." Literature has suggested that women feel self-conscious about their physical attributes and decide not to participate (Deem, 1986). Some women expressed an interest in participating in a league but also indicated that the opportunity did not exist. Several researchers and writers have written about the lack of opportunity for women in physical activity (Naughton, 1996).

In order to clarify if any patterns existed for the amount of constraints chosen by women, a statistical test was utilized to identify any significance in the amount of constraints chosen based on the following variables: three activity levels, marital status, level of education and employment status. The chi-square analysis indicated no significance for these variables. These findings should be viewed cautiously however because of the weakness in distribution. The results of the data suggest that "time" is a very significant factor influencing many women in regard to their involvement in physical activity. In addition, there are many other factors that also constrain women based on individual situations. These specific situations were not explored in this study.

The final objective of this study was to identify any relationship between current interests and those pursuits which women had been exposed to in the past. This was completed by calculating the total number of activities women indicated that they had participated in and comparing them to their current activity levels using chi-square analysis. Literature has indicated that past experience can impact current participation in numerous ways such as increasing the likelihood that individuals will continue participation and value that type of experience (Iso-Ahola, 1980; Kelly, 1974). Childhood recreation experiences that might have occurred through school, family influence, educational opportunities are all possible situations that potentially can increase confidence, specific skills and abilities as well as overall leisure ethic (Brooks & Elliot, 1971; Miller & Levy, 1996; Neulinger, 1980). This study did not investigate in which environment these experiences occurred or to what extent the individuals would attribute them to their current participation. However, results did indicate that those individual who were classified as active and moderately active did have a significant amount of past recreation experiences compared to those classified as sedentary (See table 25). Therefore, it could be inferred that past recreation does impact current activity.

One final statistical test (chi-square analysis) was used to determine any possible association between the way in which women perceive their current fitness level compared to the activity levels determined by this study. The results indicated that there was no significant association.

CHAPTER V

SUMMARY, RECOMMENDATIONS AND IMPLICATIONS

This chapter will present a general summary of the study, conclusions, recommendations for future research and the implications of the findings.

Summary

The purpose of this study was to examine several factors pertaining to women and physical activity. These factors were used as the rationale for the selection of the instrument as well as hypotheses and analysis of data: (a) activity levels of women; (b) motives and attitudes of women related to participation in physical activity; (c) obstacles which hinder and encourage participation; and, (d) relationship between past experience and current participation for women in physical activity.

A review of literature was conducted which provided a brief history of the development of leisure studies and how efforts have been directed toward addressing the unique experience of women's involvement in physical activity. In addition, the literature revealed research relevant to the factors that women experience in their overall leisure experience and more specifically in physical activity. Lastly, the literature took a brief look at the current involvement of women in physical activity.

The research instrument was selected due to its extensive use in Canada for their Nation Wide Fitness Survey which also provided the researcher with the findings to compare results. The instrument in that it reflected the opinions of women in Canada and

also the women participating in this study. It did so by adequately covering topics most relevant to the researcher and the literature. The research instrument was also supplemented with an extensive list of physical activities which was useful to this study. There were however some negative aspects of the instrument, which should be noted for future researchers exploring the possibility of using this instrument.

Most of the concerns of the researcher center on the validity of the instrument. For instance, the first four questions of the survey asked women to indicate involvement based on their perception of time. These seemed to be inappropriate “time” questions because there was no uniformity or consistency in which participants could answer these questions. These same questions were difficult in nature because they were extremely time consuming and demanding. The response options for these particular questions were also vague. Therefore, it is difficult to know if there was a thorough or true indication of all the possible answers. These more difficult questions were also placed at the beginning of survey, which might have immediately eliminated individuals from completing the survey. There were also many questions that asked for open-ended responses. It is not clear if a type of questioning that gave options for more precise answers would have been more effective.

Many of the terms used throughout the survey were vague and ambiguous such as “physical activity.” Although there was a list of almost every physical activity imaginable, it is possible the term “physical activity” could denote only those activities which a person engages for the purpose of improving health. Lastly, it is of the opinion of the researcher that the survey did not reflect current literature relating to the true meaning of leisure and therefore made faulty assumptions. It was assumed that all the

activities reported by the women were “leisure experiences.” There was not a question on the survey that addressed the concept or meaning of leisure in any way. There are several ways that this could have been accomplished. First, the instrument could have asked the participants to indicate what leisure meant to them and then instruct individuals to only indicate those activities, which fit into that definition. Secondly, the instrument could have made available at the beginning of the survey an accepted definition of leisure and then again, ask participants to only respond to activities that matched that definition. Lastly, the instrument made no effort to examine overall leisure ethic which could have produced worthwhile results. As a result, activity level was the only indication of attitude and value which may or may not be accurate. In the future, this could be useful in comparing activity level to leisure ethic. In summary, while the instrument had good content, it was lengthy, demanding and misleading in interpretation of several terms. Therefore, it is the opinion of the researcher that this instrument not be used in future studies.

The present study was designed to address issues regarding women in physical activity, and then present the findings as either support or contradiction to literature. The participants were approached either in person by the researcher or by letter. Those selected were involved as: (a) members of a recreation center or in various recreation programs offered at a center, (b) mothers of children who participated in programs at a recreation center, (c) staff and employees of the city of Georgetown, (d) participants in a beginning soccer league for women, (e) women in a organization for mothers of pre-schoolers and lastly, (f) women who were either staff or faculty at Southwestern University. All women either lived in the city of Georgetown or worked in the city.

Georgetown, Texas is a city, primarily upper middle class, in the heart of the fastest growing county in Texas with a population of approximately 32,000. It is also important to note the time of year the survey was administered (January-February) as this might have been one factor influencing the type of activities women reported to be involved in weekly and in the last month. Secondly, the women in this study were chosen from intact groups or because of their presence in a recreation setting, therefore, it is recognized that the responses may represent a bias in the opinions and behaviors indicated. It is also likely that their willingness to participate was a result of some pre-existing interest or involvement in physical activity. As a result these factors could have influenced their willingness to respond and thus the outcome of the results.

The methods applied in this study were discussed under the following headings: (a) procedures, (b) selection of research instrument, (c) selection of participants, (d) conduct of survey and (e) analysis.

The problem of this study was to elicit thorough and honest answers from persons completing the survey. Selected participants for the study met the specific criteria of being between the ages of 20 and 59. The participants had the choice of completing the survey on site with the researcher or taking it home and returning it. A short explanation along with the consent form was the only item other than the survey given to the participants. Approximately 500 surveys were handed out or mailed. Seventy-eight were completed and returned and used for analysis. The estimated time to complete the survey was between 20 and 30 minutes. Many participants began the survey on site with the researcher, but realized that it was involved and requested to take it home to complete. Several participants felt the survey instrument was confusing and followed up on site to

ask questions. It appeared that many participants took time to complete the survey as accurately as possible. Several participants seemed pleased that the issue of women and physical activity was being addressed in their community.

The analysis of data was assisted with the use of the computer software SPSS. The results were presented either descriptively or based on statistical test (t-tests, chi-square analysis and one-way analysis of variance).

Conclusions

Within the limitations of this study, the following conclusions were made:

1. Women who were active, moderately active and sedentary ranged in variety of age, education levels, employment scenario's and family situations.
2. There was a tendency for all women to choose the same type of physical activities for their weekly and monthly involvement.
3. There were also a variety of physical activities in which some women engaged although participation tended to be less frequent.
4. A "lack of time" was repeatedly mentioned as the greatest obstacle to participation as well as a condition that would increase participation.
5. There were a wide variety of other obstacles mentioned that hinder women's participation.
6. There were a wide variety of conditions that women suggested could increase their participation in physical activity.

7. Active women had more past recreation experiences than those women who were sedentary.

Recommendations For Future Research

It is conceivable that an entire paper could be written on all the questions that stem from any one aspect of this research. Every specific constraint and reason for participation could easily be studied extensively. However, there are two situations that originate from the basic objectives of this research that are worth mentioning. The purpose of this study was truly to describe women who were active and those who were not. It is the opinion of the researcher that qualitative research would be extremely useful in accurately defining active women. Many of the most interesting results of this study came from written responses. Qualitative data allows the researcher to ask very specific questions such as "In your opinion, what has contributed the most to your current participation in physical activity?" "What did a particular experience mean to you?" It is possible to address many questions in survey format but much of the richness of response and the feelings associated with leisure involvement can become lost when the instrument determines the range of responses.

Secondly, although in the minority, there were some women who indicated that they did not want to participate more in physical activity and when given the option to indicate physical activities which they would like to begin, chose none. What are the differences between women who would participate more if given the chance and those

who indicated they would not? What specific opinions and attitudes do they have towards physical activity and towards themselves?

Other Recommendations

1. A study that explores further whether certain obstacles are associated with specific types of physical activities.
2. A study that explores whether the activities women participate in the most are a result of choice, convenience or some other factor.
3. A study of the meaning of "time" as an obstacle to participation.
4. A study that describes the past recreation experiences of women.
5. A study of similar nature with a broader randomly chosen sample.

Implications

In an ideal situation, females would reach adulthood having experienced a variety of recreation opportunities. These experiences would have equipped them with the skills, competence, and confidence they need to continue participation throughout their lifetime. All women would recognize the benefits of physical activity and place value on leisure as an important aspect of their lives. Girls and women would receive the support they needed and have the opportunities to participate in any physical activity they so desired regardless of their age. Girls and women would have the knowledge they needed to make informed and educated decisions regarding the integration of leisure and physical activity

into their lives. Likewise, there would be an absence of the constraints eliminating any obstacle to their participation. It would truly be under these circumstances that an accurate understanding of exactly what physical activity really means to women.

Currently, these ideal scenarios do not exist. The results of this study along with numerous others indicate that not all women integrate physical activity in their lives. Yet, this study also indicated that women do acknowledge and recognize the benefits of physical activity. Some of the reasons that motivate women to participate differ from person to person. There was almost an equal amount of women who were active and those who were not. Despite the fact that most women indicated that there were some physical activities which they would like to pursue more, some women did not feel this way. The most mentioned constraint was the availability of time but there were many other factors that limit their involvement in physical activity. Many of these constraints could be categorized as internal such as, lack of discipline, lack of skill, intimidation and lack of motivation. On the other hand, many are a result of external factors such as the availability of programs, leagues and the scheduling of programs. It would be very difficult not to recognize the possible connection between the obstacles that women indicate to experience and the amount of participation they are involved in. In addition, there seems to be a relationship between the types of activities in which women would like to pursue and the specific constraints that appear to limit those pursuits. All women, regardless of activity level, reported to experience some sort of obstacles in regard to their participation. The results imply women's participation is limited by the opportunities that are available to them. All the factors listed above have become evident in the literature for the impact, positive or negative, on women and their involvement in leisure

and more specifically physical activity. Yet it is difficult to know if any one factor is more important than another is or if there is truly one situation or factor that ultimately makes the difference.

There are several issues from the results that could be used as a basis for increasing opportunities for women. For instance, recreation programmers could offer more leagues, encourage women to participated regardless of skill level while providing some kind of child care. Recreation programmers could be aware of the time limitations women experience and schedule accordingly. Educational institutions of all kinds could encourage physical activity by offering a wide variety of opportunities. Social institutions, churches and families could encourage women to make time for their own needs or encourage them to put themselves in situations and relationships that are supportive of their interests and not only recognize but share those values.

This final objective of this study was to contribute to the small body of knowledge which pertains to women and physical activity, specifically the attitudes that women feel about physical activity and the extent of physical activity that is integrated into their lives of women. The data from the analysis supports and helps to expand previous research. With the enormous questions that evolve from studies that address women and physical activity, future studies will help to turn conceptual statements into facts as well as help answer logical questions that emerge on what the most effective ways to address and eliminate the constraints that affect women.

REFERENCES

- Baack, S. & Smith, B.(1994). Adventure Recreation 2. Nashville, TN:Convention Press.
- Bandura, A.(1977) Social learning theory. Englewoof Cliffs, NJ:Prentice-Hall.
- Bella, L. (1989). Women and leisure:Beyond androcentrism. In E.L. Jackson and T.L. Burton, Understanding leisure and recreation:Mapping the past, charting the future (pp 151-180). State College,PA:Venture Publishing Inc.
- Bialeschki, M.D. (1993). Expanding Outdoor Opportunities for Women. Parks and Recreation, 36-40.
- Bialeschki, M.D. & Henderson, K. A. (1986). Leisure in the common world of women. Leisure Studies 5, 299-308.
- Brooks, J.B. & Elliot, D.M. (1971). Prediction of psychological adjustment at age thirty from leisure time activities and satisfactions in childhood. Human Development, 14, 15-61.
- Canada Fitness Survey. (1983). Fitness and lifestyle in Canada. Ottawa:Government of Canada, Fitness and Amateur Sport.
- Clough, P., Shepherd, J., & Maughan, R. (1989). Motives for Participation in Recreational Running. Journal of Leisure Research, 21(4), 297-309.
- Coles, E. (1980). Sport in Schools, The participation of girls. Sydney: New South Wales State Ministry of Education.
- Coverman, S., & Sheley, J.F. (1986). Change in men's housework and child care time. Journal of Marriage and the Family, 48, 418-422.
- Csikszentmihalyi, M. (1975). Before boredom and Anxiety. San Francisco:Jossey-Bass.
- Deem, R. (1995). Feminism and leisure studies. Sociology of Leisure: A Reader, 257-267.
- Deem, R. (1986). All work and no play?: A study of women and leisure. Open University Press, Milton Keynes MK77 78Y, England.
- De Grazia, S.(1962). Of Time Work and Leisure.New york:Twentieth Century Fund.
- Desertain, G.S. & Weiss, M.R. (1988). Being female and Athletic: A cause for Conflict? Sex Roles, 18 (9,10), 567-582.

- Dielman, T., Leech, S., Becker, M., Rosenstock, I., Horvath, W., & Radius, S. (1982). Parental and Child health beliefs and behavior. Health Education Quarterly, 9, 60-76.
- Driver, B.L., Brown, P.J., & Peterson, G.L. (Eds). 1991. Benefits of Leisure. State College, PA: Venture Publishing.
- Dumazedier, J. (1980). Foreward to Leisure and Poular Culture in Transition, 2nd edition. Edited by Thomas M Kando. St. Louis Mosby.
- Feltz, D.L. (1992). Psychological Perspective on girls and Women in Sport and Physical Activity: A Tribute to Dorothy V. Harris. Quest, 44, 135-137.
- Firestone, J & Shelton, B.A. (1994). A comparison of women's and men's leisure time: Subtle effects of the double day. Leisure Sciences, 16, 45-60.
- Frederick, C.M. , Manning & Morrison, C. (1996). Motivation to participate, Exercise affect, and outcome behaviors toward physical activity. Perceptual and Motor Skills, 82, 691-701.
- Goldberg, A.D. and Chandler, T.J.L. (1991). Sport Participation Among Adolescent Girls: Role Conflict or Multiple Roles? Sex Roles, 25(3,4), 213-224.
- Goodale, T. and Godbey, G. (1988). The Evolution of Leisure Historical and Philosophical Perspectives. Venture Publishing, Inc. State College, PA.
- Green, E., Hebron, S., & Woodward, D. (1990). Women's Leisure, What Leisure? MacMillan Education LTD.
- Green, E., Hebron, S., & Woodward, D. (1987). Leisure and Gender. A Study of Sheffield Women's Leisure Experiences. The Sports Council and Economic and Social Research Council.
- Greenberg, M.G. & Frank, R.E. (1983). Leisure Lifestyles. American Behavioral Scientist, 26(4), 439-458.
- Hall, M.A. (1978). Sport and gender: A feminist perspective on the sociology of sport (Sociology of sport monography series A). Vanier City, Ottawa: Canadian Association for Health, Physical Education, and Recreation.
- Harper, W. (1981). The Experience of leisure. New York: The Free Press.
- Harrington, M. & Dawson, D. (1995). Who Has it Best? Women's labor Force participation, Perceptions of Leisure and Constraints to Enjoyment of Leisure. Journal of Leisure Research, 27(1), 4-24.

- Henderson, K.A. (1996). Just Recreation for Girls and Women. Journal of Physical Education Recreation and Dance, 67(2), 45-46.
- Henderson, K.A. (1995). Marketing Recreation and Physical Activity programs for Females. Journal of Physical Education Recreation and Dance, 53-57.
- Henderson, K.A. (1994a). Broadening an Understanding of Women, Gender and Leisure. Journal of Leisure Research, 26(1), 1-7.
- Henderson, K.A. (1994b). Perspectives on Analyzing Gender, Women & Leisure. Journal of Leisure Research, 26(2), 119-137.
- Henderson, K.A. (1992). Breaking with tradition. Women and Outdoor Pursuits. Journal of Physical Education Recreation and Dance, 50-51.
- Henderson, K.A. (1989). The Meaning of Leisure for Women. Parks and Recreation, 11-13.
- Henderson, K.A. and Bialeschki, M.D. (1995). Inclusive Physical Activity Programming for Girls and Women. Parks & Recreation, 30(3), 70-78.
- Hendon, W.C. (1991). The Wilderness as a Source of Recreation and Renewal: Who uses it? What are their Characteristics? Their other interests? Their preferences? The American Journal of Economics and Sociology, 50(1), 105-112.
- Hill, B.J. (1995). A guide to adventure travel. Parks and Recreation, 56-65.
- Iso-Ahola, S.E. (1980). From Social Psychological Perspectives on leisure and recreation: Toward a Dialectical Social Psychology of Leisure and Recreation.
- Jackson, E.L. (1991). Leisure Constraints/Constrained Leisure:Special Issue Introduction. Journal of Leisure Research, 23(4), 279-285.
- Jackson, E.L. & Burton, T.L. (1989). Understanding Leisure and Recreation:Mapping the Past, Charting the Future. Venture Publishing
- Jackson, E.L., Crawford, D.W., & Godbey, G. (1993). Negotiation of Leisure Constraints. Leisure Sciences, 15, 1-11.
- Jackson, E.L. & Henderson, K.A. (1995). Gender-Based Analysis of Leisure Constraints. Leisure Sciences, 17, 31-51.
- Jordan, D.J. (1992). Effective Leadership for Girls and women in Outdoor Recreation. Journal of Physical Education Recreation and Dance, 61-64.

- Kanters, M.A. & Montelpare, W.J. (1994). Enabling Healthy Lives Through Leisure. Journal of Physical Education Recreation and Dance, 25-27.
- Karvonen, M.J. (1996). Physical Activity for a Healthy Life. Research Quarterly for Exercise and Sport, 67(2), 213-215.
- Kay, T. (1996). Women's work and women's worth: the leisure implications of women's changing employment patterns. Leisure Studies, 15, 49-64,
- Kelly, JR. (1996). Leisure. Allyn & Bacon: Needham Heights, MA.
- Kelly, J.R. (1983). Leisure Identities and Interactions. George Allen & Unwin: London.
- Kelly, J.R. (1974). Socialization toward leisure: a developmental approach. Journal of Leisure Research, 6, 181-193.
- Koehler, G. (1994). Introduction to Modern Women in Sports: Beyond Winning. Paper Presented at the Conference of the American Alliance for Health, Physical Education, Recreation and Dance. Denver, Co., April, 12-16.
- Kraus, R. (1990). Recreation and Leisure in Modern Society. Glenview, Ill: Scott Foresman/Little.
- Leisure Watch. (1992). Our values and attitudes continue to shift. Canadian Parks and Recreation, 1(2), 1-4.
- Lirgg, C.D. (1992). Girls and Women, Sport, and Self-Confidence. Quest, 44, 158-178.
- MacLean, J.R., Peterson, J. & Martin, W.D. (1985). Recreation and Leisure. The Changing Scene 4th Edition. John Wiley & Sons: New York.
- Malina, R.M. (1996). Tracking of Physical and Physical Fitness Across the Lifespan Research Quarterly for Exercise and Sport, 67(3), 48-57.
- Marsh, H.W. & Peart, N.D. (1988). Competitive and Cooperative Physical Fitness Training Programs for Girls: Effects on Physical Fitness and Multidimensional Self-Concepts. Journal of Sport and Exercise Psychology, 10, 390-407.
- McDaniels, C. (1982). Leisure: Integrating a neglected component in life planning. The ERIC Clearinghouse of Adult, Career and Vocational Education.
- Miller, J.L. & Levy, G.D. (1996). Gender Role, Conflict, Gender-Typed Characteristics, Self-Concepts, and Sport Socialization in Female Athletes and Nonathletes. Sex Roles, 35 (1/2), 111-122.

- Miner, M.J. (1993). Women in Sport-a Reflection of the greater society? Journal of Physical Education, Recreation and Dance, 3, 44-48.
- Miranda, W. & Yerkes, R. (1982). The Need for Research in Outdoor Education programs for Women. Journal of Physical Education Recreation and Dance, 82-85.
- Mowl, G. & Towner, J. (1995). Women, gender, leisure and place:towards a more 'humanity' geography of women's leisure. Leisure Studies, 14, 102-116.
- Naughton, J. (1997). Women in Division I Sports Programs: 'The Glass in Half Empty and Half Full'. The Chronicle of Higher Education, 4, 39-40.
- Naughton, J. (1996). Higher Education Weighs the Impact of a Ruling on Gender Equity in Sports. The Chronicle of Higher Education, 12, 57-58.
- Neulinger, John. (1980). Theory and Method of Social psychology of Leisure and Recreation: Social Psychological perspective on leisure and recreation.
- Neulinger, John. (1974). The Psychology of Leisure:Research approaches to the study of leisure. Charles C. Thomas Publisher: Springfield, Illinois.
- NRPA.(1997). Parks and Recreation: The Benefits are Endless...The Pursuit of happiness ...an Inalienable Right.[On-Line]. Available from www.nrpa.org/beninfo.htm.
- O'Brien.(1996). Improving the Quality of Life. Parks and Recreation, 2-10.
- Parker, S. (1976) The Sociology of Leisure. George Allen & Unwin Ltd., London.
- Parr, M.G. & Oslin, J. (1998). Promoting Lifelong Involvement Through Physical Activity. Journal of Physical Education Recreation and Dance, 69(2), 72-76.
- Priest, S. (1992). Factor Exploration and Confrontation for the dimensions of an adventure experience. Journal of Leisure Research, 24, 127-139.
- Rapoport, R. & Rapoport, R.N. (1975). Leisure and the Family Life Cycle. Routledge & Kegan: London.
- Roberts, K.(1978). Contemporary Society and the Growth of Leisure.London:Longnan.
- Russell, R. (1996). Real Gains in the Lives of Women. Journal of Physical Education Recreation and Dance, 67(5), 38-40.

- Schreyer, R., Lime, D.W., & Williams (1984). Characterizing the Influence of Past Experience on Recreation Behavior. Journal of Leisure Research, 34-49.
- Scruton, S. (1994). The Changing world of women and leisure: feminism, 'post feminism' and leisure. Leisure Studies, 249-261.
- Shaw, S. (1994). Gender, Leisure, and Constraint: Towards a Framework for the Analysis of Women's Leisure. Journal of Leisure Research, 26(1), 8-22.
- Shaw, S.M. (1985). The Meaning of Leisure in Everyday Life. Leisure Sciences, 17(1), 1-24.
- Shaw, S.M., Bonen, A., & McCabe, J. (1991). Do more constraints Mean Less Leisure? Examining the Relationships between constraints and participation. Journal of Leisure Research, 23(4), 286-300.
- Snyder, E.E., Kivlin, J.E., & Spreitzer, E.E. (1979). The female athletic: An analysis of objective and subjective role conflict. In A. Yiannakis, T.D., McIntyre, M.J. Melnick, & D.P. Hart (Eds). Sport Sociology: Contemporary themes (pp.2-4-216). Dubuque, IA: Kendall/Hunt.
- Swedburg, R.B. & Izso, B. (1994). Active Living: Promoting Healthy Lifestyles. Journal of Physical Education Recreation and Dance, 32-48.
- Tinkler, P. (1994). An all-round education: the Board of Education's policy for the leisure time training of girls, 1939-50. History of Education, 23(4), 385-403.
- Tinsley, H.E.A., Barrett, T.C., & Kass, R.A. (1977). Leisure Activities and need Satisfaction. Journal of Leisure Research, 9, 110-120.
- Tinsley, H.E.A., & Eldredge, B.D. (1995). Psychological Benefits of Leisure Participation: A taxonomy of leisure activities based on their need-gratifying properties. Journal of Counseling Psychology, 42(2), 123-132.
- Tinsley, H.E.A. & Tinsley, D.J. (1986). A theory of the Attributes, Benefits, and Causes of Leisure Experience. Leisure Sciences, 8(1), 1-43.
- Wankel, L.M. (1994). Health and Leisure: Inextricably Linked. Journal of Physical Education Recreation and Dance, 28-31.
- Wearing, B. & Wearing, S. (1988). 'All in a day's leisure': gender and the concept of leisure. Leisure Studies, 7, 111-123.
- Weiss, M.R. & Glenn, S.D. (1992). Psychological Development and Females' Sport Participation: An International Perspective. Quest, 44, 138-157.

Woodward, D., Green, E., & Hebron, S. (1988). Research note: The Sheffield study of gender and leisure: its methodological approach. Leisure Studies, 7, 95-101.

Zinser, C.I. (1995). Outdoor Recreation. John Wiley & Sons, Inc., New York.

APPENDICES

APPENDIX A
CORRESPONDENCE

Please return by : February 20th

Researcher: Kelli McMahan
Title: Special Services/Georgetown Parks and
Recreation
Phone: (Wk) 930-3596/(Hm) 254-947-8344

Thank you for your willingness to participate in this research study. This project is the final component required of my masters thesis from Oklahoma State University. The purpose of this research endeavor is to contribute to the existing data that has been collected on various aspects of women and physical activity. The content of this research explores the fitness levels of women, interests in physical activity, factors that inhibit participation, factors that encourage participation and motivators for participation. The results will be used to validate or deny much research that has been directed towards women and physical activity. The research instrument is a portion of the original tool used in Canada in their 1986 Nation Wide Survey.

- 1. Please read the consent form and directions carefully.**
- 2. You do not need to reveal your name on the survey-the consent form will be detached from your survey to ensure confidentiality.**
- 3. The yellow sheet is the activity reference card and does not need to be returned.**
- 4. Please complete all the questions honestly and to the best of your ability. An incomplete survey cannot be used.**
- 5. The first four questions ask for the extent of your involvement in physical activities. Use the reference sheet to choose the activities that you have participated in. You do not need to repeat activities as you move from section to section.**
- 6. Feel free to call me if you have any questions.**

APPENDIX B
RESEARCH INSTRUMENT

PHYSICAL ACTIVITIES

WHAT YOU DO AT WORK OR AT SCHOOL OR IN THE HOME, PLUS YOUR ACTIVITY IN YOUR LEISURE TIME ALL CONTRIBUTE TO YOUR CURRENT LEVEL OF FITNESS. THE FOLLOWING QUESTIONS WILL PROVIDE A COMPLETE PICTURE OF ALL YOUR ACTIVITIES.

TO HELP YOU DESCRIBE YOUR ACTIVITIES, WE HAVE DESIGNED FOUR QUESTIONS – ONE FOR THOSE YOU DO DAILY, ONE FOR THOSE YOU DO EACH WEEK, ONE FOR THOSE YOU HAVE DONE IN THE LAST MONTH, AND THE FOURTH FOR THOSE ACTIVITIES YOU HAVE DONE IN THE LAST YEAR.

1. DAILY ACTIVITIES

For those activities which you do most days of the week (such as work, school and housework), how much time do you spend.

	Almost all of the time	About 3/4 of the time	About 1/2 of the time	About 1/4 of the time	Almost none of the time
Sitting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Standing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking up stairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting or carrying heavy objects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. WEEKLY ACTIVITIES

Please refer to the reference card for a list of activities. Answer the following for the physical activities you do each week.

Light housework and handywork: washing dishes, ironing, making beds, mowing lawn, etc.

Number of occasions each month	Intensity			
	Average time	Light	Medium	Heavy
J F M A M J J A S O N D	hrs. min.	Some exertion	Some exertion	Some exertion
<input type="checkbox"/>	<input type="checkbox"/>	Normal breathing	Normal breathing	Normal breathing

Heavy housework and handywork: washing and waxing floors, painting, etc.

Number of occasions each month	Intensity			
	Average time	Light	Medium	Heavy
J F M A M J J A S O N D	hrs. min.	Some exertion	Some exertion	Some exertion
<input type="checkbox"/>	<input type="checkbox"/>	Normal breathing	Normal breathing	Normal breathing

Name of activity _____

Number of occasions each month	Intensity			Organized in levels or in a league	Competitive
	Average time	Light	Medium		
J F M A M J J A S O N D	hrs. min.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name of activity _____

Number of occasions each month	Intensity			Organized in levels or in a league	Competitive
	Average time	Light	Medium		
J F M A M J J A S O N D	hrs. min.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name of activity _____

Number of occasions each month	Intensity			Organized in levels or in a league	Competitive
	Average time	Light	Medium		
J F M A M J J A S O N D	hrs. min.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name of activity _____

Number of occasions each month	Intensity			Organized in levels or in a league	Competitive
	Average time	Light	Medium		
J F M A M J J A S O N D	hrs. min.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name of activity _____

3. ACTIVITIES IN THE LAST MONTH

Please refer to the reference card for a list of activities. Answer the following for the physical activities you have done at least once in the last month. (Do not include activities already listed in Weekly Activities.)

Gardening and cultivating such as speding, digging, weeding

		Intensity		
		Light	Medium	Heavy
		Slight	Some	Heavy
		Change	Person	Person
		from	above	above
		normal	normal	breathing
		state	breathing	breathing
Occasions in the last month	Average time actually spent on each occasion	1	2	3
67	Hrs. Mins.			
[]	[] []			

Shovelling snow

		Intensity		
		Light	Medium	Heavy
		Slight	Some	Heavy
		Change	Person	Person
		from	above	above
		normal	normal	breathing
		state	breathing	breathing
Occasions in the last month	Average time actually spent on each occasion	1	2	3
68	Hrs. Mins.			
[]	[] []			

Mowing the lawn (pushing a power mower)

		Intensity		
		Light	Medium	Heavy
		Slight	Some	Heavy
		Change	Person	Person
		from	above	above
		normal	normal	breathing
		state	breathing	breathing
Occasions in the last month	Average time actually spent on each occasion	1	2	3
69	Hrs. Mins.			
[]	[] []			

Name of activity _____

Occasions in the last month	Average time actually spent on each occasion	Intensity			Organized in a league or in a team		Competitive	
70	Hrs. Mins.	Light	Medium	Heavy	Yes	No	Yes	No
[]	[] []	1	2	3	4	5	6	7

Name of activity _____

Occasions in the last month	Average time actually spent on each occasion	Intensity			Organized		Competitive	
71	Hrs. Mins.	Light	Medium	Heavy	Yes	No	Yes	No
[]	[] []	1	2	3	4	5	6	7

Name of activity _____

Occasions in the last month	Average time actually spent on each occasion	Intensity			Organized		Competitive	
72	Hrs. Mins.	Light	Medium	Heavy	Yes	No	Yes	No
[]	[] []	1	2	3	4	5	6	7

Name of activity _____

Occasions in the last month	Average time actually spent on each occasion	Intensity			Organized		Competitive	
73	Hrs. Mins.	Light	Medium	Heavy	Yes	No	Yes	No
[]	[] []	1	2	3	4	5	6	7

Name of activity _____

Occasions in the last month	Average time actually spent on each occasion	Intensity			Organized		Competitive	
74	Hrs. Mins.	Light	Medium	Heavy	Yes	No	Yes	No
[]	[] []	1	2	3	4	5	6	7

Name of activity _____

Occasions in the last month	Average time actually spent on each occasion	Intensity			Organized		Competitive	
75	Hrs. Mins.	Light	Medium	Heavy	Yes	No	Yes	No
[]	[] []	1	2	3	4	5	6	7

4. ACTIVITIES IN THE LAST YEAR

Please refer to the reference card for a list of activities. Answer the following for the physical activities you have done in the last 12 months.
(Do not include activities you have already listed.)

	Months in which activity was done												Number of occasions in last 12 months	Average number of minutes spent on each occasion			
	J	F	M	A	M	J	J	A	S	O	N	D		15 or less	16 to 30	31 to 60	61 or more
Walking for exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jogging (using short strides)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Running (using long strides)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Home exercise (push-ups, sit-ups)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exercise classes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weight training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Yoga	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Golf (walking and carrying clubs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Racquetball	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tennis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baseball	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Softball	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ice hockey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Curling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Swimming at a pool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cross country skiing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alpine/Downhill skiing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ice skating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Names of activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PHYSICAL ACTIVITY IN YOUR LEISURE TIME

5. Here is a list of reasons why some people do physical activities during their leisure time. How important is each of these to you?

	Very important	Of some importance	Of little importance	Of no importance
To feel better mentally and physically	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
To be with other people	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
For pleasure, fun or excitement	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
To control weight or to look better	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
To move better or to improve flexibility	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
As a challenge to my abilities	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
To relax or reduce stress	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
To learn new things	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Because of fitness specialist's advice for improving health in general	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Because of doctor's orders for therapy or rehabilitation	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Other	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

6. With whom do you usually do your physical activities in your leisure time?

1. No one
 2. Friends
 3. Immediate family or relatives
 4. Coworkers
 5. Classmates at school
 6. Others

7. When do you usually do your physical activities? (Indicate one only.)

1. Weekdays
 2. Weekends
 3. Both

8. At what time do you usually do your physical activities? (Indicate more than one if you usually do activities more than once a day.)

1. In the morning
 2. At lunchtime
 3. In the afternoon
 4. In the evening
 5. At no special time

9. Where do you usually do your physical activities? (Indicate one or more.)

1. Home
 2. Work
 3. School, college or university facility
 4. Park
 5. Recreational facility
 6. Other
 7. Commercial facility or private club
 8. Outside using no special facility

10. How long have you been doing some physical activity in your leisure time at least once a week?

1. I don't do an activity each week
 2. For less than 3 months
 3. From 3 months to just under 6 months
 4. From 6 months to just under 1 year
 5. From 1 year to just under 3 years
 6. From 3 years to just under 5 years
 7. Five or more years

11. Comparing yourself to others of your own age and sex, would you say you are

1. More fit
 2. Less fit
 3. As fit

12. If you want to participate more in physical activities than you do now, why aren't you able to? (Check at most 3 reasons.)

- | | |
|--|---|
| <input type="checkbox"/> 1. I don't want to participate more | <input type="checkbox"/> 8. No facilities nearby |
| <input type="checkbox"/> 2. Ill health | <input type="checkbox"/> 9. Available facilities are inadequate |
| <input type="checkbox"/> 3. Injury or handicap | <input type="checkbox"/> 10. No leaders available |
| <input type="checkbox"/> 4. Lack of energy | <input type="checkbox"/> 11. Requires too much self-direction |
| <input type="checkbox"/> 5. Lack of time because of work/school | <input type="checkbox"/> 12. Lack the necessary skills |
| <input type="checkbox"/> 6. Lack of time because of other leisure activities | <input type="checkbox"/> 13. Other _____ |
| <input type="checkbox"/> 7. Costs too much | _____ |

13. If you wanted to participate more in physical activities, which of the following would increase the amount of physical activity you do? (Check at most 3)

- | | |
|---|---|
| <input type="checkbox"/> 1. Nothing | <input type="checkbox"/> 8. Fitness test with personal activity program available |
| <input type="checkbox"/> 2. Better or closer facilities | <input type="checkbox"/> 9. People with whom to participate |
| <input type="checkbox"/> 3. Different facilities | <input type="checkbox"/> 10. Common interest of family |
| <input type="checkbox"/> 4. Less expensive facilities | <input type="checkbox"/> 11. Common interest of friends |
| <input type="checkbox"/> 5. More information on the benefits of doing physical activity | <input type="checkbox"/> 12. More leisure time |
| <input type="checkbox"/> 6. Employer or union sponsored activities available | <input type="checkbox"/> 13. Other _____ |
| <input type="checkbox"/> 7. Organized sports available | _____ |
| <input type="checkbox"/> 8. Organized fitness classes available | _____ |

14. In the past year, what physical activities have you stopped doing? (Do not include those stopped due to a change in the season.)

<input type="checkbox"/> 1. None or Activity _____	Office Use
Why did you stop doing this activity? _____	Office Use
<input type="checkbox"/> 2. Activity _____	Office Use
Why did you stop doing this activity? _____	Office Use

15. What physical activities would you like to start in order to improve your fitness and health?

<input type="checkbox"/> 1. None or Activity _____	Office Use
What is the main reason you have not yet started this? _____	Office Use
<input type="checkbox"/> 2. Activity _____	Office Use
What is the main reason you have not yet started this? _____	Office Use
<input type="checkbox"/> 3. Activity _____	Office Use
What is the main reason you have not yet started this? _____	Office Use

16. How many hours a week do you spend doing your main activity? (work, going to school, - housework)

hours

17. How many hours a week do you spend doing other chores?

hours

18. How many hours a week do you have for doing leisure activities?

hours

19. Have you worked or had a job in the past 2 weeks?

Yes

No - Go to question 21

What kind of work do you do? (eg. posting invoices, selling shoes, etc.) Please provide as much detail as possible.

For whom do you work? (Name of business, government department, agency, person, or are you self employed?)

What kind of business, industry or service is this? (eg. paper box manufacturing, retail shoe store, municipal board of education)

20. Is there an opportunity for physical recreation where you work?

Yes, at lunch

No

Yes, at coffee break

Yes, after work

21. In general, how would you describe your state of health?

Very good

Fair

Good

Very Poor

Average

General Demographic Information

22. How old are you? _____

____ Years

23. What is your current weight? _____

24. What is your present marital status? Are you presently _____

1 Married

4 Separated

2 Widowed

3 Single (Never married)

3 Divorced

25. What is the highest level of education you have reached?

1 Elementary or less

5 Post-secondary diploma or certificate

2 Some secondary

6 Community college or CEGEP diploma

3 Secondary diploma

7 One or more University degrees

4 Some post-secondary

26. Are you _____ (Check all that apply.)

1 Retired

4 Homemaker/Housewife full-time

2 Employed full-time

5 Homemaker/Housewife part-time

3 Employed part-time

6 Unemployed or on strike

4 Student full-time

8 Other _____

5 Student part-time

27. Approximately what was your family's total income last year, before taxes?

1 Less than \$5,000

3 \$25,000 to \$29,999

2 \$5,000 to \$9,999

4 \$30,000 to \$35,000

3 \$10,000 to \$14,999

7 Over \$25,000

4 \$15,000 to \$24,999

8 Don't know

28. PAST RECREATION EXPERIENCE

Check each of the activities that you participated in prior to the age of twenty:

- | | |
|---|---|
| <input type="checkbox"/> Jogging | <input type="checkbox"/> Canoeing-camping trip-portage |
| <input type="checkbox"/> Running | <input type="checkbox"/> Diving |
| <input type="checkbox"/> Bicycling | <input type="checkbox"/> Kayaking |
| <input type="checkbox"/> Roller Skating | <input type="checkbox"/> Rowing |
| <input type="checkbox"/> Orienteering | <input type="checkbox"/> Sailing |
| <input type="checkbox"/> Home Calisthenics | <input type="checkbox"/> Scuba Diving |
| <input type="checkbox"/> Exercise Classes | <input type="checkbox"/> Sculling |
| <input type="checkbox"/> Weight Training | <input type="checkbox"/> Snorkelling |
| <input type="checkbox"/> Body Building | <input type="checkbox"/> Swimming at beach |
| <input type="checkbox"/> Rope Skipping | <input type="checkbox"/> Swimming at pool |
| <input type="checkbox"/> Yoga | <input type="checkbox"/> Water Skiing |
| <input type="checkbox"/> Relaxation Exercise | <input type="checkbox"/> Alpine Skiing |
| <input type="checkbox"/> Archery | <input type="checkbox"/> Cross Country Skiing |
| <input type="checkbox"/> Badminton | <input type="checkbox"/> Freestyle Skiing |
| <input type="checkbox"/> Equestrian Events | <input type="checkbox"/> Skiing |
| <input type="checkbox"/> Fencing | <input type="checkbox"/> Snowmobiling |
| <input type="checkbox"/> Figure Skating | <input type="checkbox"/> Snowshoeing |
| <input type="checkbox"/> Golf | <input type="checkbox"/> Tobogganing |
| <input type="checkbox"/> Gymnastics & Tumbling | <input type="checkbox"/> Backpacking |
| <input type="checkbox"/> Handball (4-Wall) | <input type="checkbox"/> Camping with Backpacking |
| <input type="checkbox"/> Horseback Riding | <input type="checkbox"/> Camping-prepared grounds |
| <input type="checkbox"/> Racquetball | <input type="checkbox"/> Fishing in boat |
| <input type="checkbox"/> Skateboarding | <input type="checkbox"/> Fishing from river bank |
| <input type="checkbox"/> Squash | <input type="checkbox"/> Fishing in stream (boots) |
| <input type="checkbox"/> Table Tennis | <input type="checkbox"/> Hiking |
| <input type="checkbox"/> Tennis | <input type="checkbox"/> Hunting-Small Game |
| <input type="checkbox"/> Weight Lifting | <input type="checkbox"/> Hunting-Large Game |
| <input type="checkbox"/> Baseball | <input type="checkbox"/> Motor Cycling |
| <input type="checkbox"/> Basketball | <input type="checkbox"/> Mountaineering/Rock Climbing |
| <input type="checkbox"/> Broomball | <input type="checkbox"/> Trail Biking |
| <input type="checkbox"/> Cricket | <input type="checkbox"/> Ballet |
| <input type="checkbox"/> Curling | <input type="checkbox"/> Ballroom Dancing |
| <input type="checkbox"/> Football | <input type="checkbox"/> Disco and popular dancing |
| <input type="checkbox"/> Football (touch) | <input type="checkbox"/> Folk Dancing |
| <input type="checkbox"/> Handball | <input type="checkbox"/> Modern Dance |
| <input type="checkbox"/> Floor Hockey | <input type="checkbox"/> Modern Jazz |
| <input type="checkbox"/> Field Hockey | <input type="checkbox"/> Square Dancing |
| <input type="checkbox"/> Ice Hockey | <input type="checkbox"/> Wrestling |
| <input type="checkbox"/> Lacrosse | <input type="checkbox"/> Boxing |
| <input type="checkbox"/> Officiating (specify) | <input type="checkbox"/> Judo |
| <input type="checkbox"/> Ringette | <input type="checkbox"/> Karate |
| <input type="checkbox"/> Rugby | <input type="checkbox"/> Spontaneous Ball Games |
| <input type="checkbox"/> Soccer | <input type="checkbox"/> Street Hockey |
| <input type="checkbox"/> Softball | <input type="checkbox"/> Catch (Football, baseball, etc.) |
| <input type="checkbox"/> Volleyball | <input type="checkbox"/> Frisby |
| <input type="checkbox"/> Water Polo | <input type="checkbox"/> Tag Games |
| <input type="checkbox"/> Canoeing/rowing-pleasure | <input type="checkbox"/> Climbing-playground equipment |
| | <input type="checkbox"/> Bowling |
| | <input type="checkbox"/> Horseshoes |
| | <input type="checkbox"/> Croquet |
| | <input type="checkbox"/> Bocce |

APPENDIX C
REFERENCE CARD

Physical Activity Reference Card

Walking-Running Cycling
Walking for exercise
Walking upstairs for exercise
Jogging
Running
Bicycling
Roller Skating
Orienteering
Others-specify

Calisthenics-Conditioning

Home Calisthenics
Exercise Classes
Weight Training
Body Building
Rope Skipping
Yoga
Relaxation Exercise
Other-specify

Individual and Dual Sports

Archery
Badminton
Equestrian Events
Fencing
Figure Skating
Golf, walking and carrying clubs
Golf, walking and pulling clubs in a cart
Golf, riding a power cart
Gymnastics & Tumbling
Handball (4-Wall)
Horseback Riding
Racquetball
Skateboarding
Squash
Table Tennis
Tennis
Weight Lifting
Others- specify

Team Sports

Baseball
Basketball
Broomball
Cricket
Curling
Football
Football (touch)
Handball
Floor Hockey
Field Hockey
Ice Hockey
Lacrosse
Officiating (specify)
Ringette
Rugby
Soccer
Softball
Volleyball
Water Polo
Others-specify

Aquatics

Canoeing/rowing-pleasure
Canoeing-camping trip-portage
Diving
Kayaking
Rowing
Sailing
Scuba Diving
Sculling
Snorkeling
Swimming at beach
Swimming at pool
Water Skiing
Others-specify

Winter sports

Alpine Skiing
Cross Country Skiing
Freestyle Skiing
Skating
Snowmobiling
Snowshoeing
Tobogganing
Other specify

Outing Activities

Backpacking
Camping with Backpacking
Camping-prepared grounds
Fishing in boat
Fishing from river bank
Fishing in stream (boots)
Hiking
Hunting-small game
Hunting-large game
Motor Cycling
Mountaineering/Rock Climbing
Trail Biking
Other-Specify

Dance

Ballet
Ballroom Dancing
Disco and popular dancing
Folk Dancing
Modern Dance
Modern Jazz
Square Dancing
Others-specify

Combatives & Self Defense

Wrestling
Boxing
Judo
Karate
Others-specify

Games of Low Organization

Spontaneous Ball Games
Street hockey
Catch (football, baseball, etc.)
Frisby
Tag Games
Climbing-playground equipment

Games

Bowling
Horseshoes
Croquet
Bocce
Others-specify

Home Related Activities

Light housework
(cooking, ironing, washing dishes,
making beds, mowing lawns with power
mower)
Heavy Housework
(washing windows, washing and waxing
floors, shopping and carrying grocery
bags, painting inside-outside carpentry,
repairing-remodeling)
Spading, digging, tilling, weeding and
cultivation of garden, raking lawn)
Snow Shoveling
Clearing snow with blower
Mowing lawn
Wood cutting
Other-specify

APPENDIX D

RAW DATA

Levels of Physical Activity by Age

Hypotheses # 1 - There is no significant difference in levels of physical activity by age groups. (20-39; 40-59).

Ages	Sedentary	Moderately Active	Active	Total
Ages 20-59	17	14	18	49
Ages 40-59	12	2	15	29
Total	29	16	33	78

$$\chi^2 = 5.36, df = 2, p = 0.07$$

Levels of Physical Activity by Levels of Marital Status

Hypotheses # 2 - There is no significant association in levels of physical activity by marital status.

Marital Status	Sedentary	Moderately Active	Active	Total
Married	28	13	27	68
Not Married	1	3	6	10
Total	29	16	33	78

$$\chi^2 = 3.63, df = 2, p = 0.16$$

Levels of Physical Activity by Employment Status

Hypotheses # 3 - There is no significant difference in levels of physical activity by employment status

Work Status	Sedentary	Moderately Active	Active	Total
Full Time	16	9	23	48
Not Full Time	13	7	10	30
Total	29	16	33	78

$$\chi^2 = 1.61, df = 2, p = 0.45$$

Levels of Physical Activity by Education

Reason 5 - to move better or to improve flexibility

Variable	Number of Cases	Mean	SD	T	P
20-39	49	1.89	.91	1.1	.24
40-59	29	1.65	.81	1.2	.23

Reason 6 - as a challenge to my abilities

Variable	Number of Cases	Mean	SD	T	P
20-39	49	2.16	.99	.95	.34
40-59	28	2.39	1.0	.93	.35

Reason 7 - to relax or reduce stress

Variable	Number of Cases	Mean	SD	T	P
20-39	49	1.73	.70	.93	.35
40-59	29	1.89	.81	.89	.37

Reason 8 - to learn new things

Variable	Number of Cases	Mean	SD	T	P
20-39	49	2.59	.86	.57	.57
40-59	28	2.7	.97	.55	.59

Reason 9 - because of a fitness specialist's advice for improving health in general

Variable	Number of Cases	Mean	SD	T	P
20-39	48	2.85	.99	.94	.35
40-59	28	3.07	.94	.95	.34

Reasons 10 - because of doctor's orders for therapy or rehabilitation

Variable	Number of Cases	Mean	SD	T	P
20-39	48	3.43	.87	.75	.45
40-59	28	3.29	.81	.77	.44

Reasons for participation by levels of physical activity

Hypotheses # 6 - There is no significant in reasons for participation by determined levels of physical activity (active, moderately active, sedentary)

Reason 2 - to be with other people

Hypotheses # 4 - There is no significant association in levels of physical activity by levels of education.

Levels of Education	Sedentary	Moderately Active	Active	Total
University Degree	19	13	23	55
No University Degree	10	3	10	23
Total	29	16	33	78

$$\chi^2 = 1.25, df = 2, p = 0.53$$

Reasons for participation by age groups

Hypotheses # 5 - There is no significant difference in reasons for participation in physical activity by age groups.

Reason 1 - to feel better mentally and physically

Variable	Number of Cases	Mean	SD	T	P
20-39	49	1.14	.35	.5	.62
40-59	29	1.10	.31	.51	.60

Reason 2 - to be with other people

Variable	Number of Cases	Mean	SD	T	P
20-39	49	2.39	.812	.20	.85
40-59	28	2.43	.99	.18	.85

Reason 3 - for pleasure, fun or excitement

Variable	Number of Cases	Mean	SD	T	P
20-39	48	1.7	.713	1.23	.22
40-59	27	1.9	.78	1.19	.23

Reasons 4 - to control weight or look better

Variable	Number of Cases	Mean	SD	T	P
20-39	49	1.43	.76	.92	.36
40-59	29	1.59	.68	.94	.35

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic
Between Groups	.309	2	.154	.196
Within Groups	58.21	74	.7866	P=.821
Total	58.51	76		

Reason 3 - for pleasure, fun or excitement

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic
Between Groups	1.4	2	.702	1.29
Within Groups	39.1	72	.544	P=.281
Total	40.58	74		

Reason 4 - to control weight or to look better

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic
Between Groups	.065	2	.032	.059
Within Groups	41.42	75	.552	P=.942
Total	41.49	77		

Reasons 5 - to move better or to improve health

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic
Between Groups	2.09	2	1.05	1.36
Within Groups	58.01	75	.773	P=.263
Total	60.11	77		

Reason 6 - as a challenge to my abilities

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic
Between Groups	4.07	2	2.03	2.03
Within Groups	74.24	74	1.0	P=.138
Total	78.3	76		

Reasons 7 - to relax or reduce stress

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic
Between Groups	.872	2	.43	.782
Within Groups	41.85	75	.55	P=.461
Total	42.71	77		

Reason 8 - to learn new things

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Statistic
Between Groups	3.86	2	1.93	2.4
Within Groups	57.9	74	.78	P=.0915
Total	61.81	76		

Obstacles to Increased Activity by marital status

Hypotheses # 7 states - There is no significant difference in conditions for increased activity by marital status.

Marital Status	1 Chosen Constraint	2 Chosen Constraint	3 Chosen Constraints	Total
Married	20	21	24	65
Not Married	4	5	1	10
Total	24	26	25	75

$$X^2 = 2.89, df = 2, p = .235$$

Obstacles to Increased Activity by levels of education.

Hypotheses #8 states - There is no significant difference in conditions for increased activity by level of education.

Level of Education	1 Constraint Chosen	2 Constraints Chosen	3 Constraints Chosen	Total
College Degree	7	7	8	22
No college Degree	17	19	17	53
Total	24	26	25	75

$$X^2 = .15, df = 2, p = .923$$

Obstacles to increased Physical Activity by employment status

Hypotheses # 9 states- There is no significant difference in conditions for increased activity by employment status.

Employment Status	1 Chosen Constraint	2 Chosen Constraints	3 Chosen Constraints	Total
Not Full Time	7	13	8	28
Full Time	17	13	17	47
Total	24	26	25	75

$$X^2 = 2.7, df = 2, p = .25$$

Perceived fitness levels and determined fitness levels

Hypotheses # 12 - There is no significant difference in the perceived fitness levels and determined activity levels of women (active, moderately active and sedentary)

Activity Level	More Fit	Less Fit	As Fit	Total
Active	13	6	8	27
Moderately Active	8	2	6	16
Sedentary	7	7	14	28
Sedentary	28	15	28	71

APPENDIX E
HUMAN SUBJECTS RESEARCH APPROVAL

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 12-18-97

IRB #ED-98-051

Proposal Title: A STUDY OF PHYSICAL ACTIVITY IN WOMEN

Principal Investigator(s): Christine Cashel, Kelli McMahan

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

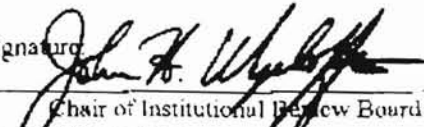
ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.

APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Disapproval are as follows:

Signature


Chair of Institutional Review Board
Co: Kelli McMahan

Date: December 19, 1997

2

VITA

Kelli McMahan

Candidate for the Degree of
Master of Science

Thesis: A STUDY OF WOMEN'S PHYSICAL ACTIVITY AS A LEISURE CHOICE

Major field: Health, Physical Education and Leisure

Biographical:

Personal Data: Born in Waco, Texas, On January 20, 1971, the daughter of Tom and Ruth Ann McMahan

Education: Graduated from Waco High School, Waco, Texas in May 1989; received Bachelor of Science degree in Education from Baylor University, Waco, Texas in December 1992. Completed the requirements for the Master of Science degree with a major in Leisure Service Management at Oklahoma State University in May, 1998.

Experience: In 1993, completed the requirements for Certified Therapeutic Recreation Specialist. Employed from 1993-1994 at Health South Dallas Rehabilitation institute as coordinator for Therapeutic Recreation; 1994-1995 Charter Hospital of Fort Worth as director of Therapeutic Recreation and 1995-1997, St. Anthony's Hospital and Adventure Education Center as recreation therapist and challenge course coordinator. From 1997 - present, employed with Georgetown Parks and Recreation in Georgetown, Texas as Superintendent of Special Services.

Professional Memberships: National Therapeutic Recreation Society, National Recreation and Parks Society, Texas Recreation and Parks Society, Association for Experiential Education and Association for Challenge Course Technology