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A QUALITATIVE STUDY EXPLORING ATTITUDINAL AND MOTIVATIONAL FACTORS INFLUENCING AEROBIC EXERCISE AS PERCEIVED BY REGULAR AND INCONSISTENT EXERCISERS

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A QUALITATIVE STUDY EXPLORING ATTITUDINAL AND MOTIVATIONAL FACTORS INFLUENCING AEROBIC EXERCISE AS PERCEIVED BY REGULAR AND INCONSISTENT EXERCISERS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of the Ohio State University

By

Lynn Sappie Esselstein, B.S., M.S.

* * * * *

The Ohio State University
1987

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CHAPTER I
BACKGROUND AND RATIONALE FOR THE STUDY

There has been a dramatic increase in the number of people involved in regular exercise during the last decade. According to a telephone interview survey conducted in 1986 to identify public attitudes and behaviors related to exercise, 69 percent of Americans regularly exercised at least one and one-half hours a week. (Gurin & Harris, 1987) A 1984 Gallup survey, Public Attitudes and Behavior Related to Exercise (1985), found 54 percent of the respondents exercised at least one and one-half hours a week. This represented a 15 percent increase in the number of Americans exercising since 1984. In fact, the latest Gallup survey indicated that 25 million Americans started exercising for the first time between 1984 and 1986. (Gurin & Harris, 1987) The Fitness in America study (1984) conducted by Louis Harris and Associates in 1978, also documented the number of Americans actively exercising. The study found that 59 percent of all Americans, 18 years old and over, participated in some form of regular exercise including...
both high and low intensity activities.

The interest in fitness seems to be a societal trend that continues to gain momentum. The first fitness revolution began shortly after and as a result of Kenneth Cooper's book, *Aerobics*, published in 1968. An article on fitness in *Time* (1981), referred to the fitness boom as "an enduring, perhaps historically significant national obsession." (Reed, 1981, p. 95)

In the March 1985 issue of *American Health*, the regular exercisers were referred to as, "the exercising majority who have set the tone for the whole country." (Harris & Gurin, 1985) The Gallup Organization, moreover, claimed that there was a second fitness revolution in this country. One that was fueled by a desire to improve the quality of life by exercising:

They're not just pursuing exercise for its own sake, for the thinner look or a faster running time. Instead, they're lured onward by the belief that exercise transforms their lives and helps them become the best humans they can be. And, to a remarkable extent, they're proving that the belief is true. (Gallup Organization, 1985, p. 42)

Most recently, the authors of the 1987 article in *American Health* referred to the committed exercisers as "Health-confidents," who believed they were happier, more self-assured, more in control of their health and possibly healthier than individuals not regularly exercising.
It is evident that consistent aerobic exercise has become a way of life for many Americans. A number of trends and changing life styles has contributed to the attitude and behavioral shifts toward attaining physical fitness in American society. Personal values with an emphasis on health, physical well-being and appearance have resulted in preventive health behaviors. In the 1984 Gallup survey, the "quest for health" was given as the most important reason to exercise. (Harris & Gurin, 1985) People who exercised were also more health conscious in general; they stopped smoking; they decreased their consumption of red meat and sugar; they ate more fruits and vegetables; and they lost weight. (Gallup Organization, 1985) The most recent Gallup Survey, as reported in American Health (1987), found that the commitment to exercise provided not only benefits such as improved personal feelings about self, but an impetus to improve one's diet and initiate other positive health changes. (Gurin & Harris, 1987)

Business and industry recognize the benefits to the company if their employees remain healthy. John Naisbitt observed that American businesses have supported the fitness movement because of the potential benefits derived from regular exercise. (Naisbitt, 1982) The trend for
corporations to implement physical fitness and health programs or include fitness facilities for their employees has become increasingly evident. (Cook, Walden, & Johnson, 1979; Dedmon, 1979; Follmann, 1978; Heinzelmann & Bagley, 1970; Rhodes and Dunwoody, 1980; Time, 1979) Management believes the programs will be beneficial in terms of physiological and psychological improvements, as well as increased work production and decreased absenteeism and illness. (Donoghue, 1977; Horne, 1975; Rhodes & Dunwoody, 1980; Time, 1979)

Parallel to the corporate and public interest in physical fitness is a corresponding increase in research published since 1980 providing physiological, psychological and demographic data. The contributions made by these studies on qualitative factors such as, attitudes, beliefs, and motives toward exercise continue to enhance our understanding of the reasons people do or do not exercise. The qualitative factors and their interactions in the context of the life circumstances that affect exercise decisions initiated the idea for this study.

Traditional adult fitness programs usually have focused on specific aerobic exercise requirements, such as intensity, duration and frequency that produce certain physiological benefits. This approach may be effective for motivated individuals; however, 31 percent of Americans
continue to lead sedentary lifestyles. (Gurin & Harris, 1987) These inactive individuals may need other educational approaches which cultivate personal commitment to regular aerobic exercise. Fitness programs that utilize specific behavioral modification techniques such as, contracts, lotteries, rewards, goal-setting and decision balance-sheets, as well as programs emphasizing potential health benefits have had varying degrees of success. Shephard (1977) discussed the short term effects of these behavioral conditioning techniques on exercise motivation, and recommends an educational approach aimed at a progressive change in attitudes toward exercise.

The possibility of enhancing the educating process to further promote public fitness was an underlying concern during the conceptualization of this study. Understanding the factors which influence exercise decisions could provide a broader perspective for developing an educational program that encourages individuals to exercise. Clearly, knowledge is important, but are there common attitudes, motivations or other factors that affect the applications of fitness information? Shephard (1977) reviewed psychological studies on exercise and found a lack of data consensus on the explanations for either active or sedentary life styles. He discussed the difficulty in assessing exercise attitudes because of the many variables involved
in fitness behavior.

A qualitative study of the exercising public may provide answers to the problem of why some people exercise and others do not exercise. What motivates these people to continue their exercise program? How is the decision to exercise influenced by an exerciser's attitudes towards health, exercise, and life? What inter-relationships exist that may influence exercise decisions?

While many people are exercising, many Americans who are informed about the benefits of aerobic exercise continue to be inactive. What reasons keep these people from exercising? How do their beliefs, attitudes or way of life influence their exercising decisions? Do the beliefs and attitudes that support the exercising habit differ from those of non-exercisers? The answers to these questions may provide insights and guidelines for developing effective educational programs in fitness education.

Open-ended interviews, as opposed to questionnaires or interviews where respondents selected predetermined responses, enabled the researcher to discover how exercisers and non-exercisers viewed fitness activities from varying personal perspectives. Respondents' own words and descriptions provided a level of understanding of their perceptions of exercise that can only be obtained through an open-ended, in-depth interview/discussion. A crucial
basis for this study was that differing individual perceptions about exercise can best be understood by viewing them in the context of each respondents' life circumstances and in accordance with an individual's descriptions and unique way of understanding their life experiences. It is the influence of these subjective factors and possibly their inter-relationships, in the context of a person's life space, that may determine whether that person successfully maintains an exercise and fitness program.

Purpose of the Study

The purpose of the study is to explore and analyze the influence of attitudes, beliefs, motives and other factors concerning regular aerobic exercise in adult males and females. Patterns of interaction among the factors will be explored in the context of the life circumstances of individual exercisers and non-exercisers. The relationship between diet and nutrition with exercise will also be studied. The ultimate intent is to develop suggestions for the development of programs in adult fitness that could enhance the willingness of people to exercise.

Research Questions:

This research sought a deeper understanding of the factors which influence exercising decisions as indicated by
responses to the following research questions. A discussion outline based on these questions was developed for use during the interview process.

1. What are the attitudes toward exercise of individuals who regularly participate in aerobic physical fitness activities?

2. What are the exercise attitudes of individuals who do not regularly participate in aerobic exercise?

3. How do attitudes influence one's decision to exercise?

5. What motivates people who regularly exercise?

6. Is there a relationship between people's age or adult developmental state and their exercising attitudes or motivations?

7. What is the relationship between regular aerobic exercise and attitude toward nutrition?

8. Do males and females differ in their attitudes, beliefs or motivations toward exercise?

9. What other factors influence a person's exercising behaviors?

In Chapter II, Literature Survey, the relevant literature provides an awareness of various instruments previously developed to research attitudes, intentions and motivation levels toward exercise as well as the specific findings from studies employing those instruments. In addition, results from specific strategies implemented for increasing exercise adherence will be reviewed.
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Throughout many exercise programs, problems concerning motivation, attitudes, and commitment occur. These difficulties have led to a great deal of research which attempts either to solve these problems or, at least, to search for clues concerning the nature of these problems. The literature relevant to this study was classified according to the following categories:

A. Studies describing and verifying a variety of devices or instruments which have been developed for the purpose of determining attitudes, intentions, motives and other variables associated with exercise; and, findings and results from studies which identified attitudes, intentions, motives and related factors concerning exercise. In many studies, researchers required that their test groups respond to questionnaires and inventories. Usually, these questionnaires and inventories represented the perspectives of other researchers who
were investigating similar problems and were therefore relevant to this study. Two models intended to describe variables affecting health behaviors, as they relate to exercise behaviors, were also included. The results of studies that used the questionnaires, inventories and other instruments to determine the attitudes, intentions or motives of their test groups were provided along with other studies that assess attitudes toward exercise. The studies included were relevant to this study because they used alternative methods to investigate similar problems. Many of the results, moreover, support the findings evident from this analysis.

B. **Studies analyzing factors that affect exercise decisions and adherence.** The results of these studies provide an awareness of personal and psychological considerations with exercise programs.

C. **Studies describing the implications of various intervention strategies intended to increase exercise compliance.** These studies were included because the findings illustrate specific techniques for fitness educators in order that they may develop successful fitness programs. They also represent another
perspective on the problems concerning exercise adherence and motivation.

D. Several books or chapters which address attitudinal and motivational concerns related to exercise behaviors, written primarily for professionals, in response to the increase in public interest in exercise. These books and chapters were included as examples of the infiltration of factors associated with exercise-decisions in books written for health prevention.

Attitudes Toward Exercise Instruments, Models and Findings

The majority of exercise-behavior research conducted during the 1960’s and seventies documented physiological changes and benefits as a result of regular aerobic exercise. Some of these benefits included the following: improved physical work capacity, increased efficiency of the cardiorespiratory system, reduced risk of coronary heart disease, reduction of body fat along with maintenance or increase of muscle tissue, increased or maintained muscular tone and strength, increased flexibility, improved blood lipid profile, improved tolerance to stress and a reduction of other unhealthy habits such as cigarette smoking and
excess food and alcohol intake. (Fox and Mathews, 1981; McArdle, Katch, and Katch, 1986; Mann, Gariett, Farki, Murray and Billings, 1969; Massie and Shephard, 1971; Pollack, Cureton and Grehinger, 1969; Saltin, 1969; Serfass and Gerberich, 1984)

During the sixties, research concerning the psychological benefits of exercise, as well as the important role of attitudes and motives led to the development of various inventories, behavioral scales, and models in an attempt to objectively explain the psychological variables influencing exercise-decisions and behaviors. Subsequent studies then used these research tools to explore individuals' attitudes, intentions and motives toward exercise.

These instruments and models include the Attitudes Toward Physical Activity Inventory, Physical Activity Attitude Inventory, Physical Estimation and Attraction Scale, Self-Motivation Inventory, Health Belief Model and Fishbein's Behavioral Intention Model. The purpose and design of these instruments and models will be briefly discussed along with the results of studies utilizing these inventories. Through this discussion, alternative research methods designed to contribute toward understanding the complex area of exercise behaviors will be presented.
Attitudes toward Physical Activity Inventory (ATPA)

Gerald Kenyon (1968a) constructed a model for characterizing physical activity as a sociopsychological phenomenon and then used the model to develop scales for assessing attitude toward physical activity. The characteristics or subdomains included in the model and scales were "based on the instrumental value that physical activity is perceived to have for the individual." (Kenyon, 1968a, p. 97) Kenyon developed an inventory, which consisted of statements thought to represent each subdomain, to test and modify the original subdomains. Kenyon's intuition and "traditional conceptions of the dimensions of physical activity" created the subdomains. (Kenyon, 1968a, p. 98) The six characteristics or perceived instrumental values for physical activity developed by Kenyon were as follows:

1. **Physical Activity as a Social Experience.** Physical activity provides a medium for social intercourse, i.e., to meet new people and to perpetuate existing relationships.

2. **Physical Activity for Health and Fitness.** Physical activity improves one's health and fitness.

3. **Physical Activity as the Pursuit of Vertigo.** Physical activity provides some risk to the participant, an element of thrill through the media of speed, acceleration, sudden change of direction or exposure to dangerous situations, with the participant usually remaining in control.

4. **Physical Activity as an Aesthetic Experience.** Physical activity provides a sense of beauty or other artistic qualities to the participant.
5. **Physical activity as Catharsis.** Physical activity provides a release of tension precipitated by frustration through some vicarious means.

6. **Physical Activity as an Ascetic Experience.** Physical activity provides a medium for the expression of superiority and those who aspire to high levels of achievement, regardless of the sport, recognize the need to delay gratification and to be able to endure long and strenuous periods of training. (Kenyon, 1968a, p. 98-101)

Attitude statements with Likert-type scales were then developed to measure attitudes toward physical activity based on the perceived instrumental values or characteristics of exercise. (Kenyon, 1968b) The statements were incorporated into the Attitude Toward Physical Activity Inventory (ATPA) and administered to college men and women. Factor analysis confirmed the usefulness of the attitude statements. (Kenyon, 1968b)

The value of Kenyon's work is that the ATPA Inventory creates an objective measurement of the varying attitudes toward physical activity. The reliability and validity of the ATPA Inventory has been demonstrated. Linda Zaichkowsky, moreover, used semantic differentials to confirm that the Likert-type scales do, in fact, measure the attitude construct. (Zaichkowsky, 1978)

Numerous studies have used the ATPA Inventory as the primary instrument to determine attitudes toward exercise. (Shephard, 1985; Martin & Dubbert, 1985; Tolson & Chevre, 1974; Sonstroem & Walker, 1973)
The major limitation of the Attitude Toward Physical Activity Inventory is the possibility that factors other than the six perceived instrumental value characteristics may be important in determining the value of exercise. The characteristics were relevant to this study, since they not only suggest reasons for exercising, but they were also considered during the interviews as point of reference needing further clarification.

Physical Activity Attitude Inventory (PAAI)

Physical Estimation and Attraction Scales (PEAS)

Robert Sonstroem developed an inventory, the Physical Activity Attitude Inventory (PAAI), to determine the perceived estimation of abilities in vigorous activities, as well as the attraction to physical activity. (Sonstroem, 1974; Neale, Sonstroem & Mertz, 1969) The inventory contained 76 true/false statements which yielded a separate subscore for estimation and attraction. The Physical Activity Attitude Inventory was originally tested with teenage boys and the study found that a relationship between the estimate of the individuals' abilities and their attraction to physical activity coincided with their fitness level. In other words, boys with high levels of fitness had greater estimates of their abilities and were more attracted to physical activity than low fit boys. (Neale, et
Sonstroem (1978) also developed the Physical Estimation and Attraction Scales (PEAS) to formulate a model for physical activity. The model hypothesized that in order for an activity to be maintained, people must first be interested or attracted to that physical activity (Attraction) and then believe they will be successful at the activity (Estimation). The PEAS format was actually a refinement of the Physical Activity Attitude Inventory (PAAI) since both instruments were developed by Sonstroem (Sonstroem, 1974). Attitude statements based on 89 True-False responses were used to determine the relationships among attraction, estimates and exercise behavior. (Sonstroem, 1978) The PEAS inventory was appropriate for predicting exercise adherence for adolescents and Dishman (1978) also found the PEAS Inventory to be applicable to young adult males and females. Dishman, Ickes and Morgan (1980) used the PEAS Inventory and found that individuals who usually continued with an exercise program had a high self-perception of their abilities and a positive attitude toward physical activity at the start of the program.

The Physical Activity Attitude Inventory and the Physical Estimation and Attraction Scales were inappropriate for use in this study because, first, the scales were developed primarily for adolescents and young adults. Secondly, the
predetermined attraction and estimation scales would have limited any spontaneous suggestions and/or discussions from the respondents for other factors involved in their commitment or lack of commitment to an exercise program.

**Self-Motivation Inventory**

Rod Dishman, William Ickes and William Morgan (1980) examined self-motivation when investigating the problem of adherence to exercise programs. The Self-Motivation Inventory (SMI) was developed to determine an individual's tendency to persevere or to be self-motivated in an exercise regimen. (Dishman, Ickes & Morgan, 1980) A Likert-format was used which allowed individuals to respond to forty concise, simple sentences related to exercise perseverance. The scale was demonstrated to be valid, internally consistent and reliable. (Dishman, et al., 1980) Using college-age, competitive females and middle-aged men as subjects, the results indicated that high self-motivation was positively associated with adherence to physical exercise programs. (Dishman, et al., 1980)

In another study, Dishman and Gettman (1980) examined potentially relevant psychological factors to determine their relationship to exercise adherence in adult males enrolled in a regular aerobic exercise program. Psychological variables were measured with the Self-Motivation
Inventory, the Physical Estimation and Attraction Scales (PEAS), the Attitude Toward Physical Activity Scales (ATPA), and a Health Locus of Control Scale. The results indicated that prior to beginning an exercise program, exercise adherers weighed less, had a lower percentage of body fat and were more self-motivated than their dropout-prone counterparts. (Dishman & Gettman, 1980) However, there was no relationship between attraction to physical activity and self-perceptions of physical ability (PEAS), health locus of control, or perceived values of physical activity (ATPA) with exercise adherence for adult males.

Gale, Eckhoff, Mogel and Rodnick (1984) also found a high level of self-motivation, using the SMI, was associated with exercise adherence. In a review of factors used to assess exercise adherence, Martin and Dubbert (1985) found that level of motivation, based on Dishman’s SMI was a better predictor of adherence than attitudes toward physical fitness.

The Self-Motivation Inventory is a valuable tool for identifying those individuals who are likely to maintain an exercise program, a tool which enables the program leader to devote special attention to those individuals who have a greater probability of discontinuing the program. It’s limitation is it’s inability to go beyond the forty statements related to exercise perseverance when identifying how
factors influence fitness behaviors.

**Health Belief Model**

The Health Belief Model was formulated during the 1960s by a group of social psychologists who were complementing each other's research in order to develop a theory that explained preventive health behaviors. (Rosenstock, 1974) The model analyzed individuals' decisions concerning a specific health behavior and their readiness to take action according to a) the personal susceptibility to a health threat such as a disease, b) the severity of the consequences of the threat c) an estimate of the health action's potential benefits, and d) general health motivations. (Rosenstock, 1974; Maiman and Becker, 1974; Lindsay-Reid and Osborn, 1980) Health Belief Indices, specific to the health threat and preventive action, were then developed by using questions to assess the likelihood that an individual would perform the preventive health behavior. Belief in the value of an action was thought to be a crucial factor in attaining continued performance. (Lindsay-Reid & Osborn, 1980)

Lindsay-Reid and Osborn (1980) studied the perceived susceptibility to heart disease and general illness (health threat) along with the perceived benefit associated with aerobic exercise (health action) for reducing the health
threat or risk. The results found individuals who adhered to regular exercise monitored their diet, did not smoke, and they did not perceive themselves to be at risk for heart disease or other illness; therefore, feeling susceptible to an illness was not a motivator for exercise. The study notes that heart disease is multi-causal with a variety of preventive behaviors being appropriate. Investigating one relationship, then, may not explain a person's total beliefs about preventive health behavior for heart disease. Lindsay-Reid and Osborn suggest when studying health behaviors, the following factors be considered: a) individual perceptions concerning the causes of health risks or diseases, b) varied manifestations of the health action, and c) personal and environmental characteristics that influence decisions. (Lindsay-Reid & Osborn, 1980)

The Health Belief Model was also used to predict dieting and exercising behavior of obese and non-obese adolescents. (O'Connell, Price, Roberts, Jurs & McKinley, 1985) The findings indicated that adolescents will diet, if they believe dieting will be beneficial and socially approved by their peers. (O'Connell, et al, 1985)

The limitations of the Health Belief Model include the need to identify the health belief indices which are thought to be most appropriate, and the need to identify other factors affecting the value placed upon health
actions (exercise) prior to conducting the research. The Model could be considered in relation to the findings generated from this study for predicting exercise behavior, because the primary premise of the model focuses on the interrelationships of perceived susceptibility to a health condition, the impact of modifying factors, and the likelihood of action.

Fishbein Behavioral Intention Model

Fishbein’s Behavioral Intention Model estimated the intentions to adopt a given behavior according to specific expectations of the behavior, along with personal attitudes, beliefs, and perceived evaluations of the consequences associated with performing the behavior. (Fishbein & Ajzen, 1975) Three studies reviewed for this study utilized the Fishbein Model for predicting exercise behavior. (Riddle, 1980; Godin, et al., 1983; Shephard, 1985)

Riddle (1980) employed Fishbein’s behavioral intention model to research joggers and non-exercisers’ beliefs, attitudes and behavioral intentions toward jogging by developing an instrument consisting of 68 bipolar scales that assessed jogging beliefs, attitudes and intentions. The results of the study found that Fishbein’s model did predict the behavioral intention to jog based on beliefs,
attitudes and consequences of regular jogging. (Riddle, 1980) In addition, a high correlation existed between intention to jog and actual jogging behavior with significant differences existing between the strength of joggers' beliefs and the strength of the non-exercisers' beliefs. Joggers had strong beliefs about the benefits of jogging whereas non-exercisers' beliefs concerning benefits were neutral. The joggers also valued being in good physical and mental condition while the non-exercisers believed jogging required too much discipline, took too much time and made them too tired. The negative aspects of regular jogging, furthermore, were not as strong for the non-exercisers as the joggers' beliefs regarding the positive effects. (Riddle, 1980) Riddle recommended Fishbein's model for identifying beliefs about physical activity when attempting to influence behavior change.

Godin, Cox and Shephard (1983) used the Fishbein Model to assess adult intentions to exercise in response to data obtained from fitness evaluations and counseling which provided exercise prescriptions. The authors believed the Fishbein Model provided a theoretical framework for investigating the factors which influence exercise habits. They found, however, that the external variable of "current physical activity habits," which is not a component of the model, contributed toward predicting intention to exercise.
(Godin, et al., 1983) Again, the major weakness of this model was that it limited the clients' responses to a predetermined framework when other variables may be operative.

The Fishbein Model was also implemented by Shephard (1985) to analyze exercise participation in three exercise programs, namely, the Canada Fitness Survey, the Toronto Life Assurance Study and the study at General Foods. Shephard's findings indicated that personal attitudes and beliefs determined behavioral intentions more than societal norms; therefore, he concluded that exercise programs should shape attitudes and beliefs. He found that positive attitudes toward exercise resulted when previous experiences with physical activity were matched with the individual's ability. (Shephard, 1985)

Summary: Attitudes Toward Exercise. Instruments, Models and Findings

A major weakness of these research tools which measure exercise attitudes, motives and intentions is that they limit respondents' opportunity to express their views by presenting only pre-determined response in the research instruments. While this approach enhanced the research instruments' reliability and validity, it did so at the risk of "preprogramming" respondents' possible responses. These inventories also permitted responses to be verified,
findings to be compared and generalized to larger population segments. This effort to insure that the instrument was objective, however, may have limited the accuracy of the findings by preventing respondents' to give their own constructions and perceptions of the factors associated with exercise.

Personal and Psychological Factors Related to Exercise

Roy Shephard (1985) identified personal factors which influence participants' decisions to initiate and continue exercise programs by reviewing three data sources: the Canada Fitness Survey, the Toronto Life Assurance Study and an exercise program at General Foods. The findings indicated that exercise participants tend to be young, single, well-educated managers and professionals who prefer physical activities which could be pursued at home on an individual basis. (Shephard, 1985). Kenyon's Attitude Toward Physical Fitness Inventory was used to measure participants' attitudes toward exercise and found the four aspects most valued were catharsis, aesthetics, health and social contacts. Shephard (1985) also found that individuals most motivated to continue an exercise program were supported by people that were significant in their lives.
Gale, Eckhoff, Mogel and Rodnick (1984) identified characteristics that may predict exercise adherence in a study of healthy men and women. Dishman's Self-Motivation Inventory was administered along with other physiological fitness assessments. Several relevant patterns discovered during this study may provide some indication for predicting adherence. Factors typical of individuals discontinuing an exercise program were as follows: a low level of stability in the community (measured by time at present address and job), a low level of responsibility (measured by marriage status and childless), low Self-Motivation Inventory scores, and a higher level of fitness for the male participants (which does not indicate that they stopped exercising; possibly, the program did not meet their exercise needs). The authors argued that the study reinforced the concept that exercise adherence, like other human behaviors, is complex—it has a variety of inconsistent characteristics. Exercise adherence, then, is the product of the interaction between personal and program characteristics. (Gale, et al., 1984)

Rhodes and Dunwoody (1980) used a questionnaire to identify psychological changes and additional effects resulting from an employee aerobic fitness program in a Canadian company. The subjects were volunteers interested in exercise who participated in a six-month exercise
program, two to three times each week. Ninety-three percent felt their health had improved, 86 percent had greater stamina and energy, 69 percent claimed they enjoyed life more as a result of the exercise program, 63 percent had an increased ability to handle job tensions and stress, and 48 percent reported improved sleep habits. (Rhodes and Dunwoody, 1980) Other job-related psychological benefits included a more positive attitude toward work and an increased level of self-confidence, as compared to pre-exercise feelings. The participants claimed they joined the program to feel better and healthier (94 percent), to relax and have fun by taking their mind off other things (80 percent) and to lessen their chance of having a heart attack (73 percent). (Rhodes & Dunwoody, 1980) This research represents valuable information concerning the potential psychological benefits which may result from consistent aerobic exercise.

Participants in a "fitness orientation" seminar sponsored by the Sacramento Central YMCA indicated they began to get in shape, to lose or control weight, and to gain a sense of well-being. (Baugher, 1978) The major reasons people continued an exercise program were self-improvement, peer-influence, and the prevention of health problems. Baugher (1978) concluded that because of the wide variety of reasons for exercising, individual variations must be
taken into consideration when leading exercising programs.

Martin and Dubbert (1985) researched the issue of adherence to exercise. The issues they considered included (a) the measurement of exercise adherence, (b) the interpretation of adherence or dropout profiles (c) the prediction value of subject factors, (d) the social and environmental factors and (e) the program factors. They found that standard definitions of exercise adherence were nonexistent and adherence measurements were inconsistent. Attendance was found to be one of the more reliable measures of adherence; however, attendance did not assure adherence to a specific exercise prescription since exercise intensity and duration requirements constituted other variables. Objective measures of physiological changes were often used to assess fitness gains resulting from adherence. Typically, the time lapse between starting a program and the time for post-testing, however, did not provide enough time for significant changes; therefore, these researchers concluded that relating physiological changes to adherence may be inappropriate. Martin and Dubbert (1985) also suggested that drop-out rate may not be an effective measure of adherence since dropping out of a program did not mean the person had stopped exercising.

The subjective factors of psychological, personality and behavioral patterns were also inconsistent for
predicting adherence. According to Martin and Dubbert (1985), attitude toward physical exercise did not appear to offer any predictive value for exercise participation and adherence while level of motivation was a better predictor of behavior based on Dishman's self-motivation inventory. Specific behavioral and biological factors such as non-smoking, white-collar vocational status, and lower body fat level were useful indicators for predicting exercise adherence. The social, environmental and program factors important for exercise adherence included social support, convenience, and the intensity of the exercise. (Martin and Dubbert, 1985)

John Hughes (1984) reviewed the literature on the psychological effects of habitual aerobic exercise and reported over 1000 articles were written on the psychological effects of exercise including the effects of exercise on anxiety, depression, personality, cognition, sleep, fatigue, socialization and work performance. Only articles published in scientific journals were reviewed because they were more likely a) to contain empirical results, b) to be randomized and controlled, c) to test the effects of habitual aerobic exercise, and d) to measure exercise effects on mood, personality and cognition. Twelve studies met these criteria; however, they were criticized for the methodological deficiencies, such as inappropriate measures
of psychological constructs, experimenter/subject bias, and inadequate descriptions of methods. Improvement of self-concept was the only experimentally controlled psychological benefit resulting from aerobic exercise. His conclusion was that "the enthusiastic support of exercise to improve mental health has a limited empirical basis and lacks a well-tested rationale." (Hughes, 1984, p. 76.)

Summary: Personal and Psychological Factors Related to Exercise Adherence and Decisions

The results of this section of the review of literature suggest that the following characteristics may be instrumental when predicting patterns for maintaining an exercise program: the participant maintains a high-level of self-motivation relating to exercise behavior; values being in good physical and mental condition; enjoys exercise for social contacts, health and fitness stress reduction; and appreciation of nature's beauty; is a non-smoker; is young and single; is a well-educated manager or professional; has an average level of body fat; is health conscious about diet; is not at risk for heart disease or other illness; and enjoys exercise activities that can be pursued at home. Maintaining regular exercise was best predicted by current physical activity habits and a strong intention to exercise.
**Intervention Strategies**

Increased interest in attitudes, intentions and motivations for exercise compliance have initiated a variety of interventions designed to increase exercise participation. Many of these intervention strategies included behavioral modification techniques or reinforcement models designed to change behavior. Many were externally controlled and therefore effective while the intervention strategies were being implemented.

Homer Tolson and John M. Chevrette (1974) utilized Kenyon's Attitude Toward Physical Activity Inventory to ascertain the effect of a daily exercise program and found that attitudes toward physical activity were affected in a relatively short period of time by implementing the intervention of an exercise prescription, personal rationale for improving one's fitness level and teacher/leader involvement. (Tolson & Chevrette, 1974)

In a similar study, Godin, Cox and Shephard (1983) studied the impact of personal physical fitness evaluation information and subsequent counseling which included exercise information and an exercise prescription based on the intention to exercise. The Fishbein Model was used to assess changes in attitude and intent to exercise and found that counseling before administering the questionnaire had
no effect on initial intentions to exercise; however, the participants were interested in exercise prior to the counseling session, as indicated by their initial desire to have their fitness level evaluated. (Godin, et al, 1983) The authors suggested that initiating policy changes which facilitate behaviors congruent with existing attitudes are more effective than attempting to change attitudes. (Godin, et al, 1983)

Jack Nelson (1978) studied the effects of providing goals, norms, and ego-threatening false norms on endurance performance. He supplied typical norms and exaggerated norms for men who were measured for elbow flexion strength. The results demonstrated that those subjects who were provided exaggerated, fictitious norms had both the highest endurance scores and the greatest variability in scores. (Nelson, 1978) The value of this study is that realistic goals or norms served as motivators for endurance performance and provided feedback for personal progress.

The effect on exercise motivation of offering free recreational activities such as tennis lessons or opportunities for swimming as rewards, contingent upon a required amount of aerobic exercise per week was studied by Shoemaker, Reid and Bauman. (1979) The results were that contingent recreation increased motivation to exercise as measured by the amount of aerobic exercise performed.
The effect of contracts and a lottery on attendance was also studied. (Epstein, L.H., Wing, R. R., Thompson, J.K., & Griffin, W., 1980) The study measured the effect of contracting with refundable prepaid money as the incentive for attendance and a prepaid lottery with attendance being the factor for eligibility to win the money. Groups receiving the contract and lottery incentive attended more exercise sessions than the self-motivated control group. These techniques may be useful initially when the majority of drop-outs occur. (Epstein, et al., 1980) It is interesting to note that the contract and lottery procedures both produced increased attendance even though the probability of winning the lottery money was less than the contract.

Corbin, Laurie, Gruger and Smiley (1984) studied the influence of a vicarious success experience on self-confidence, attitude and physical activity of adult women who enrolled in an aerobic exercise class. The vicarious experiences used as the manipulated variable in this study were based on three audio-visual presentations illustrating females being successful with physical activities. The findings supported the use of audiovisuals demonstrating successful exercise to enhance the confidence, attitudes, activity profiles and self-confidence of the women viewing
the presentations. (Corbin, et al., 1984)

In two separate community-based exercise programs, Wankel, Yardley and Graham, (1985) studied the effects and the interactive effects of varying levels of self-motivation and a decision balance-sheet upon attendance in an exercise program. The Self-Motivation Inventory was used along with a decision balance-sheet to assess exercise intentions. The results found that neither the level of motivation or the interaction of level of motivation with the decision balance-sheet, effected attendance. (Wankel, et al, 1985)

The second study investigated by Wankel, et al (1985) researched the singular and interactive effects of the level of self-motivation and structured social support intervention upon attendance in an exercise program. The study found that the support system did facilitate attendance; however, the level of self-motivation or the interaction between the level of self-motivation and social support had no effect. (Wankel, et al., 1985) These studies, therefore, concluded that interventions which use the decision balance-sheet and a structured social support treatment do facilitate attendance.
Summary: Intervention Strategies

The effects of various intervention strategies was included in the Review of Literature because of the potential usefulness of the suggested strategies in educational program development. These interventions included providing exercise prescriptions along with a rationale for improving one's fitness level, providing realistic goals and norms which serve as motivators, providing contingent recreation opportunities, using contracts and lotteries, developing vicarious success audio-visual presentations, and utilizing an effective support system.

Books or Chapters on Exercise Motivation

Motivational books and chapters on the value of exercise have increased in conjunction with interest in exercise for preventive health. Several books written for physicians incorporated exercise and fitness motivational information in order that the doctors might use it in treating their patients.

A chapter called "The Physician as Fitness Motivator" by Maynard Howe and Bruce Ogilvie, in Richard B. Birrer's book, Sports Medicine for the Primary Care Physician (1984), provided an example of the infiltration of the exercise motivation literature into the medical profession. Howe and Ogilvie provide detailed, descriptive advice
pertaining to the psychology of physical fitness in the chapter by offering suggestions to the physician, such as (a) assess the patient's interests, socialization patterns, and psychological strengths and weaknesses prior to initiating an exercise program; (b) provide appropriate external reinforcement until internal rewards provide motivation; (c) use realistic approaches to patient involvement in goal-setting; and (d) respond to the patient's resistance modes.

Robert Cantu's, *Health Maintenance Through Physical Conditioning* also included a chapter entitled, "Exercise and Life-style Modification in Family Practice" by Henry Childs (1981). This chapter stresses the important role physicians play in helping patients realize the importance of exercise for good health. Henry Childs, a physician who devotes substantial effort to preventive health behaviors, through patient education and motivation, offers practical suggestions to other physicians based on his experiences. (Cantu, 1984)

The book *Exercise Medicine, Physiological Principles and Clinical Applications* (Bove & Lowenthal, 1983) was written for physicians and addresses the exercise problems of average people or people with chronic illness. In a chapter entitled, "Psychological Aspects of Exercise," the authors suggested that the 1980's may supply reliable data
relating exercise to mental functions, comparable to the physiological relationships to exercise documented during the 1970’s. (Lawrence, 1983) Lawrence documents the importance of exercise when treating depression, anxiety, and phobias. He also notes the importance of recognizing exercise addiction, including probable causes, and potential treatments, as well as indicating the possibility of exercise-induced neurosis, anxiety, and stress. He recommends the administration of a psychometric test, such as the Minnesota Multiphasic Personality Index (1970), to patients prior to initiating an exercise program. Suggestions were made for developing appropriate exercise prescriptions based on individual conditions, situations and interests of each patient. (Lawrence 1983)

Behavior Modification and Coaching, edited by Martin and Hyrcaiko (1983), is a book written for physical educators and coaches, and it incorporates principles of behavior modification into coaching. Two behavioral approaches are described for increasing exercise behavior and incorporating fitness into a life-long program. In their contributions to the book, Kau and Fisher (1983) describe the use of self-behavior modification and spousal support for increasing exercise behavior. Specific exercise goals were met with subsequent reinforcement of the behavior. Eventually the natural positive benefits such as being more
energetic were realized and the long-term goal of regular exercise was achieved. Keefe and Blumenthal (1983) contributed to the book by describing a study that investigated the use of stimulus control and self-reinforcement to increase and maintain a walking exercise program. The stimulus control techniques included specific instructions for exercising using a self-reinforcement schedule. The study demonstrated the value of antecedent environmental stimuli in establishing and maintaining exercise behavior. Once again, eventually the intrinsic benefits of exercise became the motivating factor; however, during the initial phase of exercise adoption, the manipulation of the environment became a crucial factor in attaining exercise adherence. (Keefe & Blumenthal, 1983)

A chapter entitled, "Current Activity Patterns and Attitudes" is included in Shephard's book, Endurance Fitness (1977). Shephard reviewed psychological studies and found a lack of data consensus on the explanations for either active or sedentary life styles. Sociological factors, personality, and initial body image had an impact on attitudes toward physical activity; however, methodological problems appeared to be a major weakness in most studies. Shephard (1977) discussed the difficulty in assessing exercise attitudes because of the many variables related to exercise behavior. Techniques such as positive or negative
conditioning may motivate individuals to increase their physical activity, but not for an extended period of time. Shephard recommended an educational approach aimed at a progressive change in attitudes towards exercise. He warned that the percentage of "converts" will be low because adults' habits are rigid. He further noted that encouraging young children to be involved in regular endurance activities might be more effective in achieving long-term, increased physical activity than trying to persuade uninterested adults. (Shephard, 1977)

Art Turock was inspired by both his personal motivation to exercise and his father's heart attack to write the book, Getting Physical. Powerful, Easy-to-Learn Techniques for Motivating Yourself to Stick with Regular Exercise. (1984) Turock is president of his company, which provides "motivational support for the fitness revolution in America." The book provides encouragement in the form of "pep talks" and specific alternatives to typical rationalizations for sedentary living. Turock includes motivational exercises that require personal involvement and commitment to regular physical activity. The book was written in response to the increased interest in physical fitness, and it addresses the persistent problem of large numbers of people who lack motivation to exercise on a consistent basis, despite the evidence documenting the
physiological and potential psychological benefits of regular exercise. (Turock, 1984)

Summary: Books or Chapters on Exercise Motivation

These books and chapters illustrate the interest generated from problems associated with commitment to regular exercise. The existence of these books written for physicians, coaches, individuals and others interested in encouraging exercise participation, is indicative of both the awareness of the exercise-problem and the continual search for solutions and answers which will, perhaps, create a more fit, healthy population.

Summary: Literature Survey

The literature survey discussed studies related to research tools that have been developed to identify subjective factors affecting exercise. These research tools could limit respondents' opportunities to express the realities from their perspective because of the need to respond to the pre-determined responses in the research instruments. The intent of this study is to remove those constraints and to discover what factors—and inter-relationships among those factors—are perceived by the respondents as influential in their exercise behavior and decisions. To avoid prompting or predetermining responses
to questions, open-ended guided interviews were used rather than inventories, scales or predetermined models.

Several studies determined the following personal characteristics indicative of regular exercisers: a high level of self-motivation toward exercise; values a body in good physical and mental condition; enjoys exercise for social, health and fitness, stress reduction or appreciation of nature's beauty; is a non-smoker; is young, single, and a well-educated manager or professional; has an average level of body fat and is conscious about diet; and enjoys exercise activities that can be pursued at home.

Intervention strategies that encouraged exercise behavior included providing exercise prescriptions and a rationale for improving one’s fitness level, providing realistic goals and norms, providing contingent recreation opportunities, implementing contracts and lotteries according to exercise participation, developing vicarious success audio-visual presentations, and utilizing effective support systems. The effects of these strategies were discussed.
Chapter III
Design of the Study

Rationale for a Qualitative Approach

The intent of this study was to explore and analyze the multiple factors such as attitudes, beliefs, priorities, motives and other variables which influence decisions about exercise behavior. Many of these factors, reviewed in the Literature Survey, have been identified in the quantitative studies using primarily questionnaires and inventories where respondents selected responses to predetermined choices. However, the number of informed people continuing to lead sedentary lives suggests that other factors exist which may not have been previously uncovered due to our inability to probe and to search for deeper meanings, explanations and interpretations using traditional methodology.

Discovering the experiences, influences, meanings and constructions-interpretations of the respondents may enhance our understanding of the reality of exercise or fitness behavior, as it exists for the respondent. Considering individual’s experiences and attitudes in the context
of their life circumstances may provide an opportunity to grasp more fully how various factors affect fitness behavior. Investigating interactive factors in this way hopefully will provide new understanding of how the various factors inter-relate within an individual's life space to affect exercise. An additional intent of this study is to search for commonalities, as well as differences that may enhance the effectiveness of the educating process for informed, but still inactive individuals.

The purpose of qualitative research, according to Bogdan and Biklen, (1984) is to discover meanings, understandings and descriptions or definitions of specific situations. *A priori* constraints and control groups with specific dependent and independent variables, commonly used in quantitative research, are inappropriate to qualitative research because they limit the discovery of contextual factors or specific circumstances influencing situations as well as, variations in responses from the respondents' perspective. (Bogan & Biklen, 1984; Lincoln & Guba, 1981; Miles and Huberman, 1984) Miles and Huberman (1984) suggest, however, defining and limiting certain variables, such as specifying the number of respondents for each exercise category *a priori*, in order for the study to be bounded and to enable the researcher to make comparisons among categories. The sample was defined in this study as
well as certain parameters thought to be relevant to meanings made concerning exercise.

Qualitative research and naturalistic inquiry are often described as a "discovery" approach to research as opposed to the "verification" format which is more appropriate when referring to quantitative research. (Glaser and Strauss, 1967) The concept of naturalistic inquiry, as it relates to this study, is aptly described by Wolf and Tymitz (1976-77):

Naturalistic inquiry focuses on identifying and understanding actualities, social realities and human perceptions that exist untainted by the obtrusiveness of formal measurement or preconceived questions. It is a process geared to the uncovering of many idiosyncratic but nonetheless important stories told by real people, about real and natural ways. The more general the provocation, the more these stories will reflect what respondents view as salient issues, the meaningful evidence, the appropriate inferences... Naturalistic inquiry attempts to present "slice of life" episodes documented through natural language and representing as closely as possible how people feel, what they know, and what their concerns, beliefs, perceptions and understandings are. (Wolf & Tymitz, 1976-77, p. 6)

In addition, naturalistic evaluation and inquiry has been described by Wolf (1979) as being "aimed at a search for meaning."

This search for meaning is a search for multiple realities, truths, and perceptions. Those multiple realities are contained in the unique, the singular, the idiosyncratic, the deviant, the exceptional, the unusual, the divergent perceptions of individuals, as they live or lived the experience. (Guba & Lincoln,
An in-depth, "specialized" interview procedure was chosen as the most appropriate research method for searching for those meanings and interpretations that may contribute to the understanding of the differing realities of fitness behavior. According to Guba and Lincoln (1981, p. 166) specialized or "elite" interviews are appropriate when the investigator is interested in uncovering some motivation, intent, or explanation as held by the respondent. The specialized interview focuses on crucial areas of concern through a flexible approach that allows for probing for deeper meanings tailored to respondents' responses. Specialized interviews also relate to naturalistic or qualitative inquiry by recognizing multiple values and experiences that influence realities. (Guba & Lincoln, 1981, p. 156) Understanding differing and sometimes conflicting values requires the inquiry be grounded in the multiple perspectives from various participants.

In-depth interviews enabled a variety of detailed perspectives to be explored according to respondents' interpretations, descriptions and explanations of the meanings they have constructed about exercise in the context of individual life circumstances. According to Bogdan and Biklen (1982, p. 135), "The interview is used to gather
descriptive data in the subject's own words so that the researcher can develop insights on how subjects interpret some piece of the world." Guba and Lincoln (1981) also discuss the value that an interview has for generating data that is expressed according to respondents' perceptions. In comparison to a questionnaire or standard interview, they state,

The standardized or survey interview assumes value consensus (and handles variations in expected "norms" statistically) and therefore does not take account of multiple world views. But to get at manifold value systems the evaluator must let them arise from the context in whatever way the respondents express them. And it is the so-called elite interview that most readily allows such belief systems to emerge and allows the evaluator to record and systematize them in such a way that they can be arrayed against each other. The "elite" interviewer desires into the experience of others. (Guba & Lincoln, 1981, p. 156)

An interview, rather than a questionnaire, was selected because the interview permitted the respondents to engage in detailed discussions which reflected their unique way of perceiving individual experiences and the subsequent meaning those experiences had on exercise attitudes. According to Merton, Fiske and Kendall, the merit of an interview over a questionnaire is,

...the give and take which helps the interviewee decode and report the meanings which a situation held for them. It (a questionnaire) would mean the loss of that collaboration which encourages the interviewee to continue his self-exploration of an experience until some measure of clarity is attained. (Merton, Fiske and Kendall, 1956, p. 13)
Qualitative or naturalistic inquiry suggests using interviews for collecting subjective data, such as respondents' motives, intents or explanations. Most of the data collected could be classified into one of the following subjective areas determined by Dean and Whyte:

a) Current emotional states such as fear, anger, anxiety or depression which are often difficult to express

b) Opinions or the ideas on a subject

c) Emotional reactions to the subject being discussed

d) Values or the principles that form opinions, attitudes and behavior

e) Hypothetical reactions which are projections of what one would do, think or feel under certain situations or circumstances

f) The tendencies to manifest feelings when confronted with specific situations (Dean and Whyte, 1970)

A few of the problems associated with using interviews include the interaction and interdependence that is inevitable between an interviewer and respondent, the human errors associated with fatigue or forgetfulness/oversights on both parties, and the reactivity of the respondents because of the interview situation. (Lincoln & Guba, 1985)

While these problems are inherent in naturalistic inquiry, Lincoln and Guba (1985) suggest capitalizing on the interaction which generates data that represents the respondent's perceptions as explored through this continuous interaction. Techniques that were employed to
increase the trustworthiness of the data are described later in this chapter.

Participant observation and document review are other commonly accepted qualitative methods, however, they were inappropriate for this study. (Guba & Lincon, 1981) Participant observation was irrelevant because the study focused on the attitudes, motives, and life circumstances which influence exercise behaviors, not the actual behaviors. Reviewing documents was, of course, not applicable since no documents were available to review.

The research strategy selected enabled the researcher to a) explore and analyze the differing exercise realities from the perspective of respondents' interpretations b) understand the impact of life experiences, circumstances and their meanings toward influencing exercise decisions and behaviors, and c) develop propositions for program development in adult fitness based on the data collected.

Sample

Purposeful sampling was used for this research because of the necessity for in-depth, detailed information and contextual understandings about exercise attitudes, opinions, beliefs and meanings of a select group of individuals. Patton (1980) suggests purposeful sampling as an effective strategy when the researcher intends to learn
and understand something about a select group without, necessarily generalizing to all cases. Such sampling is also appropriate when the desire for in-depth, detailed information is more important than the ability to generalize. (Patton, 1980, p. 100-101) This study meets the criteria suggested by Patton for using purposeful sampling. The intent was not to generalize to all exercisers or inconsistent exercisers, but to gain an understanding of the interrelationships of factors involved in exercise decisions. Cooperation and receptivity by the respondents were crucial for obtaining the desired information. (Guba & Lincoln, 1981) It was imperative that the respondents be open, honest and willing to discuss their personal thoughts, experiences and meanings constructed about exercise in order that the multiple realities within the context of varying life circumstances be obtained. The actual words describing attitudes, beliefs, experiences and motives according to the respondent's perspective were vital to the study.

Individuals holding management-level positions were selected for the sample because these individuals tend to have more consistent aerobic exercise habits than individuals with blue collar or clerical positions. (Martin & Dubbert, 1985; Rhodes & Dunwoody, 1980; Shephard, 1985) The management-level positions also narrowed the population segment to similar education levels within heterogeneous
businesses. It was anticipated that the interviewees would have similar access to the health and fitness information available through the media.

In summary, the respondents in the study were middle-class males and females in the Central Ohio area holding management or professional-level positions including executives, managers, directors and lawyers.

The sample was selected from a list of business contacts from small and mid-sized companies in the central Ohio area or individuals recommended by the business contacts. Contacting specific individuals, many of which were known to the researcher through previous business contacts, and requesting that they participate in this study was an important step for eliciting the necessary cooperation. Developing a rapport with the interview respondents was critical to eliciting the detailed descriptions, which were often of a personal nature. Knowing the respondents in advance (professionally) or interviewing an individual who was recommended by a contact person, contributed toward establishing an open and honest discussion during the interview.

The criteria for individual selection were based on exercising habits, age and gender. Regular aerobic exercise was specifically explored, therefore, the contact person usually informed the researcher of the respondents'
exercise habits. The requirements for overall cardiovascular exercise, as established by the American College of Sports Medicine, state that aerobic exercise must be performed a minimum of three times each week for at least fifteen minutes at an appropriate intensity in order to attain any aerobic benefits. (American College of Sports Medicine, 1980) Those individuals who met the exercise requirement were referred to as "regular exercisers." The remaining interviewees were defined as "non-exercisers" or "inconsistent exercisers."

Age was a criterion used to determine differing perceptions according to the two age groups. These age categories were age 25-40 and 41 and over. Age 40 has been suggested as an appropriate divider between early and middle adulthood. (Levinson, 1978; Sheehy, 1976) Levinson's research also documented the generally accepted belief that biological functions in men gradually decline in their early forties. (Levinson, 1978) Gender was selected in order to explore variations in attitudes about exercise between males and females.

Twenty regular exercisers and 20 inconsistent or non-exercisers were interviewed. It was anticipated that forty interviews, consisting of men and women exercisers and non-exercisers of various ages, would supply sufficient data to discover the variations and similarities of the phenomenon
of attitudes, motivations, and meanings toward exercise. A point of saturation did occur near the end of the interviews where additional "new" information was no longer forthcoming from subsequent respondents. An equal distribution of males and females, exercise status and age categories allowed the researcher to compare responses among the categories for similar or differing interpretations and perceptions. The sample is graphically represented below in Figure 1.

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Figure 1: Graphic Representation of Purposeful Sampling
Interview Guide

An interview guide was developed based on the purpose of the study and the research questions. Five of the research questions focused on exploring attitudes, motives, and other factors within the context of life experiences and situations which affect exercise decisions. Another addressed the age relationship and one concerned the relationship of nutrition to exercise. The research questions were included in Chapter I, page 8.

The questions developed for the interview guide were open-ended in order to elicit varied, detailed, and contextual responses from the interviewees. Additional questions in response to explanations offered from the respondents, invited the respondents to explore their personal life circumstances and the meanings these circumstances had on their attitudes toward exercise and exercise behaviors.

The characteristics from Kenyon's work on the Attitude Toward Physical Activity Inventory (1986a) provided a point of reference while the respondents discussed their feelings toward exercise. If one of the characteristics was mentioned, additional probing-type questions, such as "Can you tell me more about that...?", were often asked to elicit fuller explanations and deeper meaning.

The original interview guide was pilot-tested with six individuals, three exercisers and three non-exercisers to
determine appropriateness of the format. The primary questions initiated these interviews and the suggested probe-type responses were "practiced" for appropriateness and effectiveness in gathering the desired depth of information; a discussion with the respondents elicited confusion or problems experienced during the interviews. The confusing questions were then revised and a final pilot interview was conducted.

The researcher remained flexible during the interview while using the interview guide in order to respond to the interviewees in a logical manner which fostered greater understanding for both respondent and researcher. The nature of the specialized or elite interview tends to be very free flowing—moving according to clues and discussions offered from the respondent. (Guba and Lincoln, 1981, p. 166) The interview guide was used to initiate the conversation and elicit other concerns of interest not initially discussed by the respondent. Adaptations to the interview guide were made subsequent to the initial analysis and major topics which emerged as the data was collected. This technique permitted adaptation in subsequent interviews in order to address new concerns, puzzlements or questions, as suggested by Lofland. (1979) As a result of the continual analysis process, a constantly evolving interview guide is typical of qualitative research. (Guba & Lincoln, 1981;
Lofland, 1979) Such a guide enables the researcher to elicit greater meanings from varied perspectives, along with enabling the researcher to compare responses from different respondents. Recognizing the gradual occurrence of an attitude change in response to regular aerobic exercise, for example, was discussed during an interview and then explored in subsequent interviews. The final interview guide is included in Appendix A.

Interview Procedure

The interviews were conducted at a time and place convenient to the respondent. A letter confirming the date and time of the interview was sent to each respondent whose interview was scheduled in advance. The interviews averaged thirty-five minutes, the longest interview being about fifty minutes and the shortest ones being about twenty minutes.

The interviews were conducted over two and one half years. (January 1983-September 1986) The nature of qualitative research requires the data be analyzed during the data collection phase because the findings often influence subsequent data collection. (Miles and Huberman, 1984) In a sense, the researcher weaves between data collection and analysis. The findings were then compared to other data collected, and future interviews either
confirmed or denied the initial findings. At first, it was anticipated that the data collection and analysis would last approximately nine months. The researcher was not only naive about the time requirements necessary for transcribing and analyzing the data, but unforeseen personal circumstances also interrupted the intensity of the interviewing process.

Administrative procedures were necessary for each interview. A code indicating exercising status, male/female, age category and interview number was assigned to each interview. The interview was then logged on a master control chart which enabled the researcher to maintain control over the interview process, since this chart listed individual interviews according to each category (exerciser/non-exerciser, male/female and under/over 40). A detailed discussion about the coding process is provided in the "analysis" section of this chapter. Basic demographic data (employment position and marriage status) was obtained from the participants in the event that connections or patterns could be developed from this data to the attitudes or ideas about exercise. A description of the interview, circumstances and initial reactions concerning the interview or respondent was recorded in an interview log for reference during the analyses.
The format of each interview was individualized by using an open-ended conversation format, yet the interviewer followed the interview guide to insure all topics had been discussed. The exact order of the questions varied with each interview in order to allow the researcher the flexibility necessary to respond to the respondent's comments. The approach allowed the researcher to obtain data in a casual, conversational style which elicited detailed information as perceived by the respondents concerning the factors and inter-relationships that influence active or sedentary attitudes and behaviors. A discussion, rather than a questionnaire or a multiple-choice type interview, fostered further communication with deeper meanings and detailed data because of the ability for more interaction. (Guba and Lincoln, 1985; Lofland, 1971; Schatzman & Strauss, 1973)

The interviews were tape recorded in order for the researcher to concentrate on the discussion and gain a deeper sensitivity of the reality of exercise as perceived by the interviewees. The researcher could focus on the interview and listen intently, rather than on note-taking. Bogdan and Biklen (1982) recommend interviews be tape recorded when interviewing is the major data collection method in a study. Tape recording the interviews prevented possible distortions in data collection resulting from selective
note-taking based on the researcher's perspective.

After first listening to each interview tape, the interviews were transcribed verbatim (with the exception of the standard confidentiality statement) and checked for accuracy by listening while reading the interview transcription. The transcribing process allowed the researcher to gain additional insight into the meanings of the participant's responses. Each half hour of interview took approximately ten to twelve hours to read, transcribe, re-read and begin analyzing the emerging topics. The researcher approached the task of transcribing with an analytic mind set, as suggested by Lofland (1971), which facilitated the discovery and consideration of relevant topics or comments for analysis, rather than simply transcribing the interviews verbatim. Transcriptions of the interviews then became "data" for analysis.

After the initial analysis, which produced a series of coded topics and corresponding comments with topic codings, a summary of the interview was developed. The summary and findings were confirmed using member checks with 16 respondents over the telephone. The member checks consisted of a brief discussion of the interpretations of the data provided in the interview. Any misinterpretations were corrected to reflect the respondent's attitudes, meanings and motivations toward exercise.
Compliance with Human Subject Guidelines

All responses were confidential and used solely for the purposes of this research. Individual respondents were only identified during the research process. The tape recordings were erased after they were transcribed to prevent respondent identification through voice recognition. Accuracy of each transcription was assured before the tape recording was erased.

A code number was assigned to each interview and corresponding transcription. The code number was subsequently used to identify an interviewee for clarification or member checks. The names corresponding to the code numbers will be destroyed at the end of this research study. The transcriptions, however, will be saved for future reference.

When arranging for the interview, the purpose of the study was described, the need to tape record the interview was discussed, and the anticipated time commitment was explained. Participation in the study was voluntary. At the beginning of each interview, a statement was read concerning the confidentiality of the interview and the procedures for transcribing the interview. The confidentiality statement (Appendix B) was not transcribed for each interview because it was standard for each interview.
Trustworthiness

Measures were taken to assure the trustworthiness of the study by primarily addressing the terms suggested by Lincoln and Guba (1985), "credibility," "confirmability," "transferability" and "dependability." These technical terms will each be described with both qualitative terminology and their reciprocal terms used in quantitative research. Establishing "credibility" enables the researcher to feel confident that the data discovered and subsequent analysis were plausible and relevant to the phenomenon being explored. The quantitative counterpart would be internal validity or establishing "truth value" in the findings. (Guba & Lincoln, 1985) Assuring that participants' responses were accurately documented, described and interpreted were key factors to attaining credibility. The following techniques contributed toward maintaining credibility in this study: tape recorded interviews, triangulation, and member checks.

Tape recording the interviews guarded against possible distortions and biases resulting from selected recording of relevant interview data, which often occurs when, for example, a researcher records only notes during an interview. Further, as additional topics or patterns emerged throughout the study, the transcriptions of the interviews were repeatedly reviewed and analyzed by the researcher for
similar meanings and to protect against misinterpretations of data.

In order to manage the ever-increasing data base, detailed summaries were written to describe the major topics which appeared in the data for each interview. Sixteen "member checks" were then conducted with the respondents and researcher discussing these summaries in order to determine the accuracy and the appropriateness with which the particular phenomenon under consideration had been interpreted. In addition to verification of interpretations, the member checks enabled the respondents to offer additional thoughts and perceptions which were not mentioned during the first interview. The member checks conducted with the initial interviews confirmed, rather than invalidated the researcher's interpretations and summaries, and thus, increased the researcher's confidence to understand and accurately interpret the data.

Triangulation is a procedure through which credibility is demonstrated through several sources expressing similar interpretations, meanings-made or experiences to a given phenomenon. (Lincoln & Guba, 1985; Denzin, 1978)

Throughout this study, responses were compared to other responses with the purpose of verifying comments through similar expression of ideas. In fact, most of the findings were supported by similar interpretations, meanings-made,
or experiences from a number of respondents. In other words, triangulating the data added credibility because the findings were documented through a number of respondents, each claiming an experience, feeling, or a reaction to an experience in a similar manner. Diesing (1972) refers to this approach as "contextual validation," where specific evidence is assessed by comparing it with other evidence available on a given topic.

Determining the credibility of the responses and findings is important to any methodology which primarily uses interviews as the data base. In actuality, one cannot guarantee that what is said in the interview/discussion is in fact what the respondent believes; however, steps can be taken to increase one's confidence that the data are as factual as possible. (Guba & Lincoln, 1985) Establishing credibility in this study enabled the researcher to be confident that the findings described the phenomenon of exercise attitudes, meanings and motivations.

Lincoln and Guba (1985), define the "confirmability" of a study in terms of data: the data must be factual, reliable and confirmable, thereby creating an overall sense of trustworthiness. Assuring confirmability produces findings with minimal investigator bias which represent the responses, meanings and contextual relevance of comments according to the perspective of the respondents.
Establishing "objectivity" with the purpose of maintaining neutrality is the appropriate quantitative terminology that refers to confirmability. The procedures used for credibility throughout this study, namely, triangulation, member checks, and tape recording the interviews, also contributed to the confirmability of the findings. In this study, the interviews were detailed discussions in which the researcher asked probing questions to further clarify the meanings, attitudes, motivations and other important factors associated with exercise decisions and behavior. The technique of "cross-examination," advocated by Guba and Lincoln (1981) enabled the researcher to accurately determine and further understand the respondents' comments, especially when there was an apparent discrepancy between comments within a given interview. The researcher usually responded with an acknowledgment of what was said or understood, along with further inquiry questions intended to clarify issues. The role of the researcher was one of facilitator, fact-finder, listener and acknowledger; the respondents, then, dominated the interview by discussing their personal perceptions about exercise. The researcher did not express personal values, opinions, experiences, knowledge or other ideas relating to exercise. The in-depth interviewing maintained the "structural corroboration" Guba and Lincoln (1981) deemed necessary to
assure that the findings were supported by an accurate database. Confirming the original data, as supported by respondents' comments, contributed to the researcher's sense of trustworthiness in the data.

"Transferability" refers to the ability to apply the findings to similar settings resulting from employing thick descriptions and purposeful sampling. "Thick descriptions" is a technical term referring to providing sufficient data and detail that enables a reader to make decisions concerning applicability toward other similar settings. (Guba & Lincon, 1981) The quantitative term, external validity, refers to the ability to apply quantitative research results to larger population segments and is similar to transferability. The context-relevant comments would enable the researcher or reader to assess the appropriateness for transferability to other settings.

"Dependability" contributes toward stable findings and is best described by the terms reliability and consistency in quantitative terms. The researcher maintained a research and reflexive log which documented personal reflections concerning the research process such as, reasons for methodological decisions, logistics of the research procedures, important relevant events along with personal values, interests and related areas of interest. The information in the research log provided valuable information
for accurately interpreting and analyzing the data. Guba and Lincoln (1985) suggested this "reflexive journal" as a tool imperative for tracing the research process in the form of a research audit.

The chart on the following page, Figure 2, summarizes those methodologies employed to maintain trustworthiness in this study.
### TRUSTWORTHINESS

<table>
<thead>
<tr>
<th>Qualitative Terminology/Findings:</th>
<th>Methodology Employed</th>
<th>Quantitative Terminology/Purpose:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CREDIBILITY/ Are Plausible</td>
<td>TAPE RECORDED INTERVIEWS TRIANGULATION MEMBER CHECKS</td>
<td>INTERNAL VALIDITY/ Truth Value</td>
</tr>
<tr>
<td>CONFIRMABILITY/ Have Minimal researcher-bias</td>
<td>CROSS EXAMINATION TAPE RECORDED INTERVIEWS TRIANGULATION MEMBER CHECKS</td>
<td>OBJECTIVITY/ Neutrality</td>
</tr>
<tr>
<td>TRANSFERABILITY/ Are Context-relevant</td>
<td>PURPOSEFUL SAMPLING THICK DESCRIPTIONS</td>
<td>EXTERNAL VALIDITY/ Applicability</td>
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<tr>
<td>DEPENDABILITY/ Stable</td>
<td>RESEARCH AND REFLEXIVE LOGS</td>
<td>RELIABILITY/ Consistency</td>
</tr>
</tbody>
</table>

Figure 2. Trustworthiness: Understanding Qualitative Terminology and Methodology through Quantitative Comparisons
When assessing an interview for truthfulness, Dean and Whyte (1970) suggest that the researcher consider a) ulterior motives which would modify the respondent's comments; b) factors which could bar spontaneity; c) the respondent's desire to please the interviewer; and d) idiosyncratic factors which may cause the interviewee to express only one facet of their reactions to a particular subject. To guard against the possibility of ulterior motives, the respondents were told that the purpose of the research was to discover a wide variety of opinions. The researcher was neither evaluating a particular exercise program nor had interest in one aspect over another; therefore, the possibility for ulterior motives was minimal. The researcher believes ulterior motives were not a concern in this study because there were no consequences to the respondent for providing the information.

Factors which inhibited spontaneity were reduced through the assurance of confidentiality. The confidentiality statement read to each interviewee was reinforced throughout the interview, as needed.

The researcher did not sense the respondents trying to please her with comments she might want to hear. During the introductory comments, the researcher assured respondents that, "There were no right or wrong answers and a variety of opinions and ideas were desired" in an attempt
to emphasize the importance of open, honest ideas; thus enabling the researcher to comprehend the differing perspectives and realities as perceived by the respondents.

The occurrences of idiosyncratic factors or unique behavior characteristics such as, the wording of questions, various moods or reactions to certain words were minimized by using general questions and allowing the respondent to dominate the interview. Further questioning by probing or cross-examination clarified any misunderstandings.

Finally, a sense of openness was apparent during the interviews. An awareness of the potential problems and steps to maintain credibility and objectivity minimized the possibility of false information. It is believed that the responses were genuine and represented the interviewee's true perspective.

Analysis

Coding

Each interview was coded according to exerciser/non-exerciser (E/N), male/female (M/F) and under forty/over forty (A/B). The eight categories of subjects were as follows:

EMA: Exerciser, male, under forty
EMB: Exerciser, male, over forty
EFA: Exerciser, female, under forty
EFB: Exerciser, female, over forty
NMA: Non-exerciser, male, under forty
NMB: Non-exerciser, male, over forty
NFA: Non-exerciser, female, under forty  
NFB: Non-exerciser, female, over forty

The responses were analyzed as they were collected and the formal analysis began with the coding of topics related to the data directly on the transcription. The topics described and synthesized the data into topics such as, attitude about personal exercise, motivation or the impact of childhood experiences on attitudes toward exercise. Other relevant topics emerging from the data included the impact of age or adult development, attitude changes, or situations limiting exercise. Some of the topics were unique to either exercisers or non-exercisers. An example of topics relevant to non-exercisers were the expressed satisfaction with their sedentary life style or experiencing a change of habits away from exercising.

In other words, a topic can be thought of as a "bin" with a label that has some relevance to the research problem. At this point, relationships among the data were not evident. The initial coding of topics was only a selection process for data relevant to the study. (Miles & Huberman, 1984)

The topics that emerged typically corresponded to the questions in the interview guide and enabled the researcher to organize and retrieve the data during subsequent analysis. Twenty-two topics were evident after the
analysis of the initial interviews and was expanded to forty-six after analyzing the final interviews.

**Computer Sorting Procedure**

The next phase of analysis was procedural in nature, yet critical to subsequent levels of analysis. The data were entered into an IBM-PC personal computer using the Lotus 1-2-3 and Symphony software programs. Symphony was released after the research had already begun and because of its capabilities for sorting and word processing, the analysis was completed using Symphony. The data from each interview were entered into a spreadsheet format according to a specifically designed arrangement which allowed the data to be sorted by topic. Each line of data were coded based on the variables of the study. The coding system included a) topic, b) interview number, c) exerciser or non-exerciser, d) gender and e) age.

The actual response of the interviewee was entered into the data base along with researcher comments, if appropriate. A column (field) for each of the variables listed above (topic, number, exercise status, gender, and age) corresponded to each row (record) of data. The data were then entered into the computer as it occurred during the interview. Responses that were relevant to multiple topics were coded with appropriate topics. Once the data
were entered, it were sorted according to each particular topic. The result was a print-out for each interview by topic in alphabetical order and all related comments (data) pertaining to each topic. This level on analysis was labeled "S1" and was completed during the interview phase so that initial findings could be explored during subsequent interviews.

A summary was then compiled for each respondent's comments concerning a given topic. The summary reduced the data to manageable pieces for clarity and greater ease in subsequent analysis. (Miles & Huberman, 1984) The summaries, then, could be referenced back to the original interviews for clarification, if necessary. The summaries were entered into the computer in a logistical manner similar to the first coding. The columns on the spreadsheet format included the coding for interview categories (interview number, exerciser/non-exerciser, male/female, over/under 40), topic, summary statements according to topic, supporting comments (interviewee's responses) and researcher observations. Each interview had a summary print out that was referred to as "S2" and it became the primary data base for subsequent analysis.

All "S2" interviews from a given category such as EMA, (exerciser, male, under 40) were combined into one computer file. Symphony's sort command used the field "topic" as
the primary sort criteria resulting in a new spreadsheet, listing each topic in alphabetical order and noting all related comments made by all respondents within a given category. There were eight separate printouts which corresponded to the eight interview categories described at the beginning of this section. This level of analysis was referred to as "Summary by Topic."

Analytic Comparison Worksheets

The Symphony sorting capabilities were then used to produce spreadsheets which enabled the researcher to see the emergent themes according to particular topics for the various categories of respondents. Two primary analysis sorts provided the best arrangement in order to facilitate the analysis of trends and themes that emerged from the data. The first analysis sorts were based on either exercisers or non-exercisers. The criteria for sorting the first analysis was by topic, master control number (a number for each line of data used for control purposes), and gender. The result were two analysis worksheets, one for all responses by exercisers according to topic and gender, and the other, for all non-exercisers according to topic and gender.

The second analysis sort was based on gender as the comparison factor. For this analysis worksheet, the
criteria for the sort command was topic, master control number and exerciser/non-exerciser. The result was again two worksheets, one for all the responses by males according to topic, exercise status and age, and the second one for all responses by females according to theme, exercise status and age.

**Analysis for Themes and Patterns**

The researcher used the four large worksheets, as described above, listing responses by summary, supporting comments and researcher observations according to topic for the following criteria: a) exercisers, b) non-exercisers, c) males and d) females. All of the categories (exerciser/non-exerciser, male/female, over/under 40) were included in each worksheet.

Each major exercise category was analyzed by studying the opposite sex and gender categories and the opposite category for the same sex and age. Thus each category was compared to three other categories. For example, exercising males, under 40 (EMA) were compared to exercising males-over forty (EMB), exercising females-under forty (EFA) and non-exercising males-under forty (NMA). These comparisons were made to acquire the fullest meanings and implications within each topic by analyzing the opposite sex and age within the same exercising status, and then
analyzing the non-exercising counterpart within the same sex and age. The following graphic representation provides a summary of the comparisons between categories of respondents for the analysis:

![Diagram](image)

**Figure 3. Analysis Comparison by Category of Respondents**

The researcher analyzed data for the relevant categories of emergent themes and meanings for each topic. Keep in mind that all comments relating to a given topic for either exercisers/non-exercisers or males-females were together for review. Several themes developed into a pattern that resulted in a different topic which included the
initial topics and emergent themes. For example, the "quality of life" pattern resulted from the themes that emerged from the topics "benefits and motivations of exercise."

The totality of the themes and patterns that emerged formed the basis for the findings of the study. The researcher was intimately involved with the data and, consequently, the themes and patterns that emerged became more and more apparent as the data was configured, examined, and reconfigured for analysis. The interview log describing each interviewee was also used as a reference when analyzing the data. The research log also supplied personal and logistical perspectives to incorporate into the interpretations. These themes, meanings and relationships that evolved from the data are reported in the next chapter, Findings of the Study.
CHAPTER IV
FINDINGS

The primary concern when conducting the in-depth interviews used in this research was to discover, analyze and comprehend the beliefs, attitudes, motivations and meanings made by the interviewees about aerobic exercise. The responses were divided into two categories: those who exercised aerobically on a regular basis, and those who exercised inconsistently or not at all. By comparing the responses within the categories and between the two groups, common factors which influenced persons' decisions to exercise emerged. These findings, patterns, and interrelationships could prove beneficial to the development and implementation of educational programs in adult fitness.

Reporting the Findings

The forty interviews were conducted, and on the basis of their responses were classified as either "aerobic
exercisers," or "inconsistent exercisers" rather than "non-exercisers" as specified in the research design protocol. The reason is that only three respondents could be classified as "non-exercisers." The remaining 37 exercised at varying intensities, durations and frequencies. The initial research protocol specified 20 "regular aerobic exercisers" who exercised aerobically at least 15 minutes three days a week for a minimum of six months. The remaining 20 interviewees were aware of the need to exercise for better health, yet expressed varying degrees of commitment to personal exercise. Fifteen of those remaining interviewees were inconsistent exercisers who exercised aerobically on an intermittent basis. In other words, they regularly participated in aerobic activity for short periods of time but stopped exercising for various reasons. Two respondents who performed only regular flexibility and muscle stretching exercises were classed as "non-aerobic exercisers" and three interviewees were "non-exercisers" because they seldom participated in any form of exercise.

For the sake of clarity, the inconsistent, non-aerobic, and non-exercisers were analyzed as one group, the "inconsistent exercisers." Their comments indicated irregular or non-participation in aerobic exercise, and they were not recipients of the documented physiological
and psychological benefits produced from regular aerobic exercise. The inconsistent exercisers' beliefs, attitudes and motivations were differentiated from those of the regular aerobic exercisers.

Topics or themes that emerged from the data are supported first by responses made by the regular aerobic exercisers and then followed by the inconsistent exercisers' responses. There was general consistency between age or gender within each major exercise category. There are some distinctions, however, that will be discussed when appropriate. A similar finding from the 1986 Gallup Survey which determined exercise attitudes and behaviors of Americans indicated exercise involvement among all age groups, people of all income and education levels, and men and women. (Gurin & Harris, 1987)

Because the purpose of the analysis was to understand constructed-interpretations and search for commonalities, the primary concern was the emergent common themes and patterns evident in the data and reported as such. Specific quantifications were not made because the actual responses were the crucial focus. Quantifying terms such as "most," "many," or "several" are often used when reporting the findings. These terms need to be interpreted in context of a given statement. For example, at times a point is being made about one category of exercisers, such
as females, over 40 and would constitute a universe of five. Other times, a larger group of all male exercisers would indicate a total of 10. And when referring to all exercisers, the total would be 20. "Most" refers to the higher range of possible responses, "many" refers to a mid-range and "several" means the lower range of possible responses.

The outline on the following page provides a summary of the major sections and subsections as presented in this chapter. Implications for the findings relating to educational program development will be presented in Chapter V, "Guidelines for Program Development."
MAJOR TOPICS INCLUDED AS FINDINGS

1. Commitment to Aerobic Exercise
   A. Childhood Experiences with Physical Activity
   B. Participation in Aerobic Exercise
      1. Discipline
      2. Goal Setting
      3. Support from Significant Others

2. Motivations for Regular Aerobic Exercise
   A. Perceived Benefits and Motivations
   B. Satisfaction of Needs
      1. Physical Fitness and Body Shape
      2. Feeling Energetic, Healthy and Productive
      3. Preparedness

3. Sacrifice/Risk versus Benefit
   A. Time Sacrifice
   B. Balance
   C. Pain and Injury

4. Fitness Definition

5. Media

6. Age

7. Attitudes Toward Nutrition, Diet and the Relationship between Diet and Exercise

Figure 1. Major topics discussed as findings.
Commitment to Aerobic Exercise

The critical difference between regular aerobic exercisers and inconsistent exercisers was the commitment to aerobic exercise, its priority in the life of the regular aerobic exercisers and the influence of factors affecting commitment. Consistent involvement in aerobic exercise enabled the exercisers to experience a variety of benefits and satisfy a variety of needs. Generally, positive personal experiences such as, regular participation in aerobic exercise and positive childhood physical fitness activities, influenced the regular aerobic exercisers' attitudes. Most respondents compared risks, sacrifices and benefits associated with regular aerobic exercise to assess the consequences of exercise alternatives.

Male and female exercisers, both under and over forty years of age, considered exercise their responsibility. It was a personal decision that required a commitment. They considered it a way of life and were willing to make the necessary sacrifices to exercise:

My own personal idea as it relates to fitness, I couldn't do without it. It's almost like a dependency on a drug. It's a matter of just making sure that you take the time to do it.

It's been a part of my life. In terms of level of awareness and a willingness to take action to maintain myself. So I'm probably different than the average person. I made a pledge to myself to
do it. I think just that commitment that I've made to try to do it. I see it on my calendar and I go there and make the commitment and that is satisfying.

I've always gone in like a bull in a china shop and set up a strenuous program with a lot of pain. I decided not to do that this time, but rather hopefully a lifetime commitment of some form of exercise. I'm exercising to get in shape for life, not to get in shape for some race.

I think very much you have to want to do it yourself. It's a commitment. You have to really want it. I think if I never did another triathalon or marathon or whatever again, I think exercise would always be a part of my life. I can't imagine not doing anything. It eventually become a part of your life.

You have to make the commitment to yourself. There's nobody that's going to make you do it.

It's a great feeling, but it's a really personal decision as far as I'm concerned. Knowing that no one else was responsible for getting it done but me. If I didn't run the whole four miles, I was only cheating myself and I would be the only one who would know about it. That payback in confidence in yourself just knowing that I can go out and do it, never having done it before. Once you start, you're hooked.

It's up to each person to make his own decision about what he'll do.

I just decided there was something I should be doing with my life. Physical fitness provided the proper challenge. I let my body tell me what it can do.

Running is a self-motivating type thing. I wouldn't care if everybody stopped running and the "in thing" was basket-weaving. I'd still be out there running.

You don't get into doing an endurance event for anybody else but yourself. When you run a marathon or you do a marathon swim or do a long bike you do it because you want it.
Everyday after school when I was six and seven years old, I'd go down to the YMCA and work out. I never knew any different.

So after you train that long (entire adult life) you just don't feel right if you feel, "Hey I'm getting sluggish. I can't walk up the stairs without panting. I can't bend over to pick up my socks and stretch." So I get a feeling that kind of background maybe gets ingrained into you so that you don't feel right unless you do something. It's inconceivable to me why somebody wouldn't take care of themselves. I just don't understand that. You know people dropping over at 55 with clogged arteries and so on. I don't know. Why doesn't a person value good health?

If you're interested in living a long time, as most people are, you better your chances of doing so by engaging in a relatively moderate amount of aerobic exercise.

Advertising would not have created an image that I should be doing it. It's more a one-to-one kind of a personal feeling.

Consistency between values, beliefs and actions supported the intense desire to continue exercising in the regular exercisers. The decision to exercise was made personally because the results were desired and satisfying. These practical results led respondents to stress the importance of exercise in their lives, and, consequently, they committed themselves to an exercise regime.

Inconsistent Exercisers

Inconsistent exercisers recognized that regular exercise requires a commitment which they were unwilling to
make. The time required for exercise often influenced a person's decision to exercise; other commitments were often mentioned as more important. The following excerpts are from interviews of male and female inconsistent exercisers:

Time is what you want to do with it. It's a matter of prioritizing. I didn't feel the exercise issue was a priority.

It's important to exercise, but I don't do it on a regular basis. I guess, I just don't take the time.

I have to set priorities and there's only so many hours in a day. Doing other exercise is just not important to me.

The last thing I want to do after I get two kids in bed is to exercise. I want an hour to myself. Right now I don't have the time.

I do not enjoy exercising. I have so little time when I can just sit and do something that I want to do. I resent having to do exercises. I really would prefer to be spending my time with my nose buried in a good book.

It seems like I'm a good talker, but it must not be a priority for me since I don't exercise regularly or find the time. Maybe I'll be able to work it into my schedule soon.

I'm so busy. I just don't have time for it. I have so many demands with my family. I guess it's just not a priority of mine.

I guess the thought of having to do this all the time for the rest of my life in order to keep my muscles tightened and toned. That may be why I sort of shy away from exercise.

Childhood Experiences with Physical Activity

Most of the males in this study were more active and involved in organized sports as children and adolescents
than the females. Many of the females were active in
general running, bike riding or summer swimming, but none
of the females that were interviewed were involved in an
organized sport as youngsters.

Several comments from male exercisers emphasized that
their participation in sports or activities as children and
adolescents contributed to their positive attitude toward
physical activity throughout life:

I really enjoyed it (sports in high school). I
think there is a relationship between self-esteem
and exercise. I don't know that someone will
exercise who doesn't care about themselves.

Everyday after school when I was six and seven
years old, I'd go down to the YMCA and work out.
I never knew any different.

It's been part of my life. In terms of level of
awareness and willingness to take action to
maintain myself.

One male interviewee over forty, who is active in the
Columbus Public School System, discussed the importance of
positive exercise and physical activity experiences for
children and teens. He said,

The youngster tries and is a failure. Is not
successful at it. And so they leave this whole
area of physical activity and do other kinds of
things. It's really more important for you to
find something they enjoy and can excel at. It
doesn't matter what that activity is. Every
youngster is not going to be good at major
sports. I see that's a real weakness. We
haven't done a very good job of educating parents
and adults. That's really the key to getting
people to enjoy being physically fit, to enjoy
it. I think that's part of the problem. Very
young kids have an unsuccessful experience in
sports and so they say, "I'll pay chess or I'll read."

This same individual was discouraged by the lack of progress made when instilling positive values regarding exercise as a component of health maintenance. He said,

I see a very low level of concern in young people for fitness. I don't see the kind of thing ten years ago I thought I'd see with the fitness craze. Maybe a total change in the way people perceive health and taking care of their body. I thought maybe it would be something for kids who would grow into it and come up with the kind of attitude that I had later in life and hopefully they would find it earlier. I don't see that occurring. I see playing sports and those kinds of things, but not getting into things because of a concern for or wanting to be healthy.

A female in her fifties, who has been exercising for several years, commented on her adolescent or childhood experiences and orientation toward exercise by saying,

I wish I had known the importance of exercise when I was 15 years of age. But as a kid, you really don't. But she's (a young female exerciser) been brought up in a generation where she's alot more aware of exercise than I am. To her, the running, the exercise and the feeling better is all one. To me, it's something I must do in combination to this (dieting). If I'd been born when she was born, I'd probably have the same outlook on it as she does, but I don't. Nobody did it when I was young.

Parental values, attitudes and beliefs about the value of regular aerobic exercise along with their exercise behaviors, influenced the development of positive attitudes and a strong commitment to regular physical activity:
My father was Mr. Ohio. He was a weight lifting fanatic. In 1948, he was probably one of the top three body builders in America in 1948, the year I was born. There were articles written about him in strength and health and he did that at my age- 34. He was very determined and fanatical type of guy. So when I was a little kid, I always grew up in the YMCA. Every day after school when I was six and seven years old, I’d go down to the YMCA and work out. I never knew any different.

I come by it very naturally. I come from a very athletic background. My father has been a basketball coach for many years now- probably 30 years or something like that. He’s a basketball coach and head of the phys-ed department at a small college down in Tennessee where I did my undergraduate work. So I grew up playing basketball and baseball and football. I played basketball in high school and a little bit in college. So sports have always been a real central part of my life and still are.

My mom is very much a person who takes alot of pride in her appearance and she brought me up the same way. Not to sloppy.

My mother probably is the one that has influenced me the most. I remember her doing exercises everyday and she does it now- she’s 70 years old. She’s still doing it. My daughter took the exerjazz with me and we really had a good time together. I’m hoping that she feel exercise is important and sees that it will give her more energy.

Inconsistent Exercisers

Inconsistent and non-exercisers also believed that positive values toward exercise are established when a person is young. Two comments from males over forty who rarely exercise were:

I wasn’t much involved in sports as a kid. I’ve been sedentary all of my life. It did make an impact. I started out that way.
People didn’t think about exercise like we do today. This exercise fad and all this hype about exercise was not around when I was growing up and as a younger man.

Two males, who do not exercise on a regular basis, had negative experiences as teenagers and, consequently, did not enjoy exercising. One involved an injury and another mentioned the effect of mandatory participation in a sports/physical activity program:

I guess now that I think about it, the injury was really quite psychologically damaging. I sort of went into depression. I wasn't going to be the baseball star that I thought I might be. That might have had an impact on my attitude toward exercise. It just wasn’t important anymore.

I just wasn’t into it. Sports just stopped after my freshman year in college. When I went away to school (high school), a boarding school, it was part of your daily life and you had no choice on that. I guess when I got to college and the choice was mine, I didn’t want to. A few intramurals on a real informal basis.

One female did not enjoy high school physical education classes because she lacked physical ability and did not perform well. She does not enjoy exercise at all today. Her comments were,

(In reference to gym class), I thought it was absolutely unnecessary. Being physically fit. I didn't think it was part of school, yet I was getting a grade in it. I never developed any of those skills as far as being a great physical specimen. I felt gym was very competitive and those girls who were better physical specimens had an edge.
Another female recalled her experience with gym class:

I didn’t particularly like gym class. We had to wear stupid looking outfits and it just wasn’t fun.

Summary: Commitment to Aerobic Exercise

Regular exercisers maintained a commitment to aerobic exercise which manifested itself in the priority placed on exercising. The exercisers also had a positive attitude toward exercise, with exercise being a necessary component of a health lifestyle. A disciplined approach to exercise required incorporating time for exercise into busy schedules which represented their personal commitment to regular aerobic exercise.

The inconsistent exercisers were not as committed to regular aerobic exercise as the regular exercisers and therefore, exercise was not given consistent priority. Time required for exercise often interfered with other commitments. Moreover, because many did not perceive exercise as enjoyable, leisure time was not spent exercising. They would rather spend their leisure time reading favorite books or watching television; activities perceived to provide more pleasure than the physical efforts required for aerobic exercise.
A positive childhood history of physical activity often resulted in a positive attitude toward exercise in the adults. Those children, for example, who were active and enjoyed physical fitness were likely to continue being active as adults. Parent's attitudes and exercise behaviors when the respondents were children, influenced the values held by adults toward regular exercise; those respondents who have exercised their entire lives had at least one regularly exercising parent. They established the value of taking care of themselves through exercise early in life. Generally, regular exercisers considered their involvement in sports as teenagers to be positive; consequently, they are still committed to a regular regimen of exercise as adults. It has always been a part of their lives. Conversely, the lack of a positive childhood history of physical exercise, discouraged respondents from being interested in physical fitness, as both children and adults.

Participation in Aerobic Exercise

The regular aerobic exercisers discussed their exercise habits as routine components in their lives. Jogging and bicycling were performed most frequently with durations of 30-45 minutes, three to seven days each week. The
following comments demonstrated the level of commitment reflected by the amount of exercise regularly performed:

My own personal program right now consists of about five or six days a week of running somewhere between four and six miles; three days a week of Nautilus work and some racquetball. Once in a while, I'll jump in the pool and do some swimming. I do that for variety. For a number of years I did nothing but racquetball. Then I go into running about eight to ten years ago and for a number of years I did nothing but running. And I found now that if I combine the two plus swimming, some weight training and things that I like to do, it complements the program plus the total fitness idea really comes across.

I run three times a week—sometimes four. I usually run about 30 minutes. I've been running for probably six years now.

I come from a very athletic background. My father has been a basketball coach for probably 30 years now so I grew up playing basketball, baseball and football. So sports have always been a real central part of my life and still are. When I got to be of adult age, I realized that it was important to stay fit and so I started looking around for some other ways to stay fit and be a little more systematic about it, since I was not going to basketball practice for two hours after school. In the winter I'm in a "maintenance" type program. I try to do enough to keep myself from getting out of shape. I'll run maybe 10 miles a week—usually three to four miles three times a week. During the summer—or from April until October, I generally run 15 to 20 miles a week. I've been running a reasonable amount for about five or six years.

I've exercised ever since I was a kid; I got into swimming. When I was in the military, I was the physical training instructor because I was the only guy in the class in shape enough to give the class. In 1977 I got into karate and now have a Black Belt. I work out with two hour "katas" three or four times each week; these are designed to keep you limber, loose along with exercise.
The katas are demanding enough that you're winded and your heart beat is up. You could call it "Chinese Aerobics."

I force myself to run at least five days a week. I set goals to run for 30 minutes or maybe six miles. I definitely have to establish how long I'll go. I've been running for about 10 years now. In the beginning, I kept wanting to run farther and farther and farther. Now I run to stay in shape and feel good and that's it.

I believe very much in exercise. In order to preserve my sanity and as a stress reliever, I got into a regular regime of aerobic exercise through running. I've done this for about five years now. I usually run about four miles everyday. I run in the morning. My schedule is such that with the demands on my personal time now, I had to have something where I could just run out the door in the morning. I feel I have to have something that really goes right along with my lifestyle and doesn't interfere alot with my time.

I've been exercising about four days a week maybe three or four miles. It's been about a year and a half. It was a great outlet and I needed the whole satisfaction of achieving a goal. I run outside until the weather changes then I'll go to the club and run inside.

I was inspired to begin training for a marathon while watching the Ironman competition in 1982. I sat there and thought, "If these people can do these three events, I can do one." I ran my first marathon in 1983. For me it's the accomplishment of a goal. I have to have a purpose in mind—to go out and run 10 or 15 miles, for what? I run on an indoor track in the winter for 30 or 40 minutes. I lift weights about two or three times a week. In the winter I'll cycle also on a stationary bike. It's real rare that I'll come home after work and sit down and do nothing. Usually I'll try to run or cycle. I don't consider lifting a "workout" per say; there's something about going out and running or cycling that when you're done and you're hot and sweaty you feel like you've really exerted yourself. I don't get that from lifting weights.
Right now I am doing exercises, aerobic type. I really feel that three times a week is a minimum. I try to do it six times a week for about 45 minutes. I've been exercising for four years. I really enjoy the aerobics.

In 1978 I really got caught up in the fad and started running. The more I ran the more I wanted to run. It became an obsession. I started off running probably two miles a day and then it got up to six miles a day and then eight, ten and twelve on weekends. I didn't want it to rule my life like that, I wanted to get in control. I finally decided four miles a day would be adequate. Right now I run three or four miles a day almost everyday however. I know I'm healthy and I just feel good. Recently I got into bike riding also. So now I run in the morning and then come home in the afternoon and take a 20 mile bike ride. It works out very well. In the winter time, I'll reverse it on a stationary bike in the mornings and run in the afternoons. So it's fun. I need lots of sit-ups and I do most of the stretching exercises. I definitely do calisthenics along with the running.

Exercising on a regular basis became a way of life for several males and females from both age groups after participating in a consistent aerobic exercise program and after experiencing the mental and physical benefits of consistent physical activity. A male exerciser under forty commented,

I hated running. I forced myself to run and learned to enjoy it. I started running half and walking half. Where I hated running, I got to the point where I enjoyed it.
Three females (under forty) experienced an attitude change after regular involvement in an aerobic exercise program.

I never saw the need for it before. I see that if you stop, everything goes to pot in about three weeks. I just feel it's something that you have to keep after for the rest of your life.

I just truly think someone has to experience it personally before they would ever really believe it.

I see the importance of it now. I know it's important for me and I make myself do it, which I wouldn't have before. I feel so much better when I can do that (exercise) than I ever thought I would, prior to having done it.

A female exerciser began exercising when she was in her forties to relieve depression. When she was interviewed, she enjoyed running regularly, and her symptoms of depression had apparently disappeared:

I was alone, feeling rotten and I believed what I had read that if my body was feeling good, maybe I wouldn't be so depressed. So I did it (ran) and I hated it, just hated it. Before I finished that spurt, which in about three or four years after that start, I was running five miles, but not everyday.

One male interviewee suggested that a change in attitude follows and, perhaps, requires a change in behavior:

Maybe the way to change people's attitudes about exercise is to find ways to get them into the activity initially. The problem is to make sure they maintain that behavior long enough for the attitude change to occur. This is the point in the process where we have to focus our attention.

Another male respondent, a fitness educator, believed otherwise. He noted that fitness education which
encouraged aerobic exercise would bring about a change in attitude, particularly in children. He claimed that,

As you educate them, the attitudes will change. It's going to be a slow attitude change. The attitudes and educational changes have to take place in our grade schools, in our preschools and in our middle schools. Cause that's when you form your ideas. Along with that change is going to take a change in supporting attitude of parents of kids. That's not there today.

Discipline.

Many regular exercisers demonstrated self-discipline in their exercise habits and usually in their food selection. Many benefited from the discipline because of the control they felt over their bodies. Comments made about discipline often implied that decisions had to be made concerning the efficient use of respondents' time.

I exercise and then in that consistent mode of doing that, I feel in control of myself when I eat and I do not overeat. I feel in control of my physical well-being.

A lot of other things stem from running once you start. You start really feeling good, you start watching what you eat, your whole attitude changes toward yourself and the outside world. When I first started exercising regularly, running in particular, I was reading everything I could get my hands on. In terms of fitness and exercise and nutrition and diet and weight loss. I really changed my whole diet and nutritional outlook.

It's something I really feel is necessary. It's sort of a discipline.

You have to have the discipline to keep doing it. I feel you have to establish a lifetime habit.
It's sort of a discipline. I'm not so hung up on it that I think it's the most important thing in my life. It's something that I'm doing to keep myself healthy.

I like that discipline and the fact that I start the morning with a success. It carries through the whole day.

Inconsistent Exercisers

Most of the inconsistent exercisers interviewed in this study have participated in a regular exercise program in the past, but they have subsequently stopped exercising for a variety of reasons. Several comments from males and females of both age groups were:

I get out of the habit in as short a time span as two weeks. It gets difficult to get back into it.

The weather changes and you decide you want to get outside. So I would just stop it once the weather got nice.

I've always exercised sporadically. I quit then in the winter and then I never got back to it.

Then like many people, I get out of the habit or some reason deters me from it, it gets to be summer and I really hate swimming indoors in the summer.

I think we just get in or out of the habit of it. It isn't something we think about doing. It's just not on our minds.

A male under the age of forty who does not exercise on a regular basis felt guilty about not exercising. He claimed, "I feel very undisciplined." He occasionally exercised and admitted he is not disciplined enough for
regular exercise.

You feel good after you've finished. You feel like you've accomplished something for yourself. But getting into a discipline routine and doing it daily, really doesn't fit for me. If you want to do it, you'll press your time to get it done. It's lack of discipline.

The lack of discipline, other time commitments, feelings of boredom or pain during exercise were characteristic of most inconsistent exercisers. A situational change or crisis often precipitated a change in the exercise regimen, a change which prompted inconsistent exercisers to stop exercising completely.

Support and Encouragement from Significant Others.

Many respondents who were committed to exercise were encouraged by family members, friends and associates. One male in his thirties explained,

You tend to gravitate to people who are doing the same things and it creates a perception that everybody does what I do.

An avid female exerciser, in her fifties stated that she and her husband's friends changed to be consistent with their interest in exercise, health and good nutrition. She said,

Our whole circle of friends changed. We wanted to be with people who ran. We met alot of new people and enjoyed being with them more than some of our old friends because of what they liked to do and eat together. It was really something we enjoyed.
A comment illustrating the role acquaintances play in establishing consistent physical activity was made by a female in her late twenties who trains for marathons and triathelons. Her husband is a semiprofessional athlete; exercise, then, is an important part of their relationship. Her comments were,

I'm probably more influenced by constantly being surrounded by people who do this kind of stuff. Everybody that we hang around with does something. I know a lot of people that work out on a regular basis that most people would consider crazy. So I'm probably more influenced by the people I know and friends and people that come by our house and the people that we hang out with. And the kind of weird stuff they do more than anything else.

Inconsistent Exercisers

Most inconsistent and non-exercisers tended to associate with people that do not regularly exercise. Their family, friends and associates often did not exercise and it was not a typical topic of conversation. Several inconsistent exercisers did have family members or friends who regularly exercise which created an awareness of exercise, but these people did not inspire them to exercise on a regular basis.

One male in his fifties was discouraged from exercising by his acquaintances. He had lost a considerable amount of weight and was exercising regularly. His friends and
associates gave him negative feedback which made him self-conscious. He stopped exercising and gained much of the weight back. He explained his feelings as,

> It made me get a complex about it. Your body felt great, but your face looked terrible. Then I got to the point where I said, "What am I trying to do?" I'm a middle age man trying to act like a teenager. A lot of time peers sometimes put you in that certain situation where you might refrain from what you should be doing.

**Goal Setting.**

One of the characteristics that differed between regular exercisers and inconsistent exercisers was that exercisers tend to be goal-oriented. They set goals for themselves in many facets of life and exercise was one of them. Achieving the goals created a sense of satisfaction.

Several of the comments regarding goal setting were,

> Every new mileage goal or time goal was another goal. When I did that, it was a personal satisfaction. I tend to set goals professionally.

> It's as much as seeing if you can do it; I made my goal that I would finish the marathon. Not that I could do it in three hours or whatever. I'm very goal oriented.

> For me it's the accomplishment of a goal. I do it with a purpose in mind.

> I've always been ambitious enough to strive for goals.

Setting time or distance goals served to motivate some exercisers as they attempted to accomplish their goals. It
added interest to an exercise routine; one competes against oneself. One female in her thirties who set specific time goals said, "Once I did the 10K or five mile run or whatever, then I started trying to break those times."

Goal setting was not mentioned by many inconsistent exercisers. Setting goals might provide an incentive which would enable them to continue exercising for longer periods of time. If they were committed to exercise and it had been a priority, goal setting might have provided direction for exercise efforts. One male who recently began exercising mentioned a particular road race as an incentive or goal, but he did not continue exercising (running) long enough to condition his body to compete in the race.

**Inconsistent Exercisers (Exercise Participation)**

Most inconsistent exercisers did not demonstrate the commitment to exercise that was evident with the exercisers. Extrinsic variables motivated many inconsistent exercisers to follow intermittently an effective aerobic program for several weeks; however, exercise was usually discontinued before any intrinsic motivators became operative:

Health was always something that I took for granted. Exercise was always something that to a certain extent was looked on as not necessary. Probably to be perfectly honest, about once a week I'll run for about three miles. I can go out and run at any time for five miles without
any problem at all and I can do it in about 45 minutes. I've always been that way. It's a lack of discipline. It's probably a certain carry over that I have always been in relatively good condition.

I don't do anything physical on a regular basis during the winter months. I play racquetball occasionally. I can feel it physically in that I'm not as limber and I'm carrying more weight. It's just uncomfortable. But not sufficiently uncomfortable to motivate me to do anything about it. I used to swim everyday in the summer, but last year I didn't. I dropped out of that.

At age 30 I lost some of my competitive spirit because I wasn't winning as much. Since then I really have not had any formal exercise program. I find it boring and tedious. At least three times I have gotten to the point where I was serious about exercise. It is almost always related to weight. But each time I get away from doing it. It is work, it's not fun; therefore, I'm not going to do it.

There have been times when I've gotten on a regular exercise program in the winter. Although I haven't for the past two winters. I would just stop it once the weather got nice. This past winter I did not exercise and it was a choice. I just didn't feel I had time. It's a matter of prioritizing. I didn't feel the exercise issue was a priority.

You get set in your ways and I was busy and just really didn't even consider it. It was not something that was always on my mind.

Golf—that would be just about the extent of my physical activities. When the weather's right, I would call it one and a half times a week. I do certain exercises right now because I feel sort of good about them. They're only in a series of ten and it takes me about ten minutes and I do it a maximum of three times a week. Sit ups and some muscle stretchings. I feel I can do it and I don't feel a tremendous amount of soreness. I think that it's doing me good, or at least I feel like it is because I feel good. It can't be hurting me that much.
I think it's important to exercise, but I don't do it on a regular basis. I guess I just don't take the time. By the time I get home I'm so tired that I don't feel like exercising. The hardest thing is getting started; if I had a scheduled time I'd be more likely to do it. I enjoy exercise because it makes me feel better. My problem is with exercise, you have to get your body to a certain form before you can really exercise. I can't run like I used to because I'm carrying too much weight. I don't feel comfortable jogging for example with this extra poundage. I'm just taking too much of a risk. I was on an exercise kick for awhile. I was jogging and really felt great. I went on a diet program. Everybody thought I was dying. It made me get a complex about it. So a lot of times your peers sometimes put you in that certain situation where you might refrain from what you should be doing.

I absolutely don't like exercise that is for exercise sake alone. Like sit-ups or even jogging where you just go around in the same circle day after day. That is not something that I like at all. It's boring. I don't feel guilty about it.

I try to do 10 minutes of stretching and flexibility exercises every morning. I once had a rowing machine and I worked on that for a couple months. I felt how boring it is to sit here and exhaust myself consciously. If you know you're doing it and you're just doing it to be doing it, it's dumb. I stopped using it because I was bored.

I suppose I've always exercised sporadically. At one time I was jogging at least three or five days a week. I quit because in the winter it's still dark at 5:30 or 6:00 in the morning and my husband and I were concerned. I quit then and I never got back to it. Actually, I hate exercise. I have never been able to find an exercise with the exception of racquetball that I felt was enjoyable. I do not enjoy jogging. I do not enjoy exercising. I have gone to jazzercise and those places. I don't really enjoy them. I have
so little time when I can just sit and do something that I want to do. I resent having to do exercises. I really would prefer to be spending my time with my nose buried in a good book.

I’ve gone to Spas and had classes. I had the aerobic classes here and it’s fast paced and I can’t keep up. It’s like, “You’re so fat you can’t keep up with it.” I start exercising for one of two things. I find that my clothes are no longer fitting properly or I have some special thing coming up. You have something that you can actually look forward to—that’s a good incentive. I generally stop exercising within a month after the event.

I guess the thought of having to do this all the time—for the rest of my life in order to keep my muscles tightened and toned. That may be why I sort of shy away from exercise.

I try to find something that I like to do that is not going to bore my brains out. My exercise is intermittent. There are times when I really get "funky" and into my work or bothered by work or problems. I got off my exercise program and inertia is probably the strongest force on the face of the planet. It was probably two months before I started up again or even tried.

I have a 30 minute walk around the neighborhood. It’s down hill and uphill. I don’t get to do that as much as I want to because I have to get up at 5:00 every morning. I have a hard time working it in and it’s real frustrating to me. Exercise has always been in my mind and it’s been very frustrating that I don’t get to continue with the programs. Now I just don’t seem to be able to find that certain time to be able to do it. So I’m really searching for a time when I can do that.

I need to have more exercise. And at various times in my life I’ve had more exercise than I have right now. It kind of keeps reminding me that I really should get myself back on better track. I have taken aerobics and I swim and walk. I get out of the habit or some reason that kind of deters me from it. It’s hard to find the
time. Maybe it's simply putting off what I ought to be doing. It's really just working it in with all of the demands on you.

One time I followed some toning type exercises, but that didn't last too long. I get bored. I'm so busy. I just don't have time for it. I guess it's just not a priority of mine.

Summary: Participation in Aerobic Exercise

Constant involvement in aerobic activity perpetuated regular exercise for most exercisers. Findings in this research suggest that attitudes toward aerobic exercise may change following regular participation in an aerobic activity. Involvement in an exercise program seemed to produce positive physical and emotional benefits which gradually changed attitudes and beliefs, changes which made regular aerobic exercise a priority. Male exercisers were more physically active and involved in some form of exercise for their entire lives than females and the value of exercise, moreover, was deeply embedded in the male exerciser's psyche. For most of the aerobic exercisers, exercising had become a way of life, with the exercise being an integral part of their description of themselves.

The consistent variable in both exercisers and inconsistent exercisers was the personal value placed on exercise and its benefits. Those individuals who valued exercise were disciplined to the extent that aerobic activity became a habit and a desired life style. When
exercise was a priority, individuals who were goal-oriented set specific exercise goals as motivators to continue exercising. Satisfaction from achieving the goal fueled the desire to accomplish more goals through continued exercise.

Family members, friends and associates encouraged many regular exercisers to continue exercising. In fact, many exercisers tended to gravitate toward other exercisers for support and encouragement. They enjoyed being together and frequently discussed an aspect of exercise such as foods eaten or training ideas. This association with other exercisers created a feeling that exercise is a part of many peoples' lives. A feeling of being "part of the group" was evident, and their membership needs were possibly satisfied through their exercising associates.

A variety of rationalizations interfered with many inconsistent exercisers attempts to regularly exercise. Often they had not exercised long enough to realize the potential benefits; consequently, the exercise did not become a priority in their lives. Exercise was not valued enough to be consistently included in busy time schedules. The regular exercisers managed to incorporate exercise-time into their busy schedules because they not only valued but had also experienced the results and benefits of consistent exercise.
Motivations for Regular Aerobic Exercise

Perceived Benefits

Two primary benefits from regular aerobic exercise evident in the data were positive mental attitude and enhanced quality of life. The data indicated that respondents felt more relaxed while participating in an exercise program which, then, resulted in a positive mental outlook.

Improvement of one's perception of one's quality of life was a benefit that was evident in the data. Many regular aerobic exercisers claimed they "just felt better." Male exercisers discussed the concept of "enhanced quality of life." While females discussed the idea of improved health and feeling better, they did not specifically mention the words, "quality of life." The following comments express the psychological benefits and enhanced quality of life according to the exercisers:

I find when I'm running on a regular basis that I'm much more aware of what's around me. That my thought processes are so much more alert. If I lay off two or three days, my level of creativity drops way off. I feel good mentally. I know that psychologically I'm doing what I know I should be doing. It's more mental, frankly than it is physical. I have a more positive outlook, in looking toward satisfaction in what I'm doing.

I'm hooked on running just from the emotional, psychological side of it. Not so much from the fitness. Fitness is not as much the fact that running gives me an opportunity to pull back from all of those people who want to call and talk. The solitary part of running. I like the fact
that I'm alone with my thoughts or lack of thoughts which sometimes is even more appropriate. Running is the kind of experience that allows you to concentrate or allows you to get rid of those anxieties and frustrations that give you trouble.

The single best thing is that it helps with the stress and pressure. I don't know how people deal with it if they don't work out. You've had a horrible day and I can go run four or five miles and I feel fine. When I'm finished running, I feel more a sense of accomplishment than with anything else.

The most significant benefit about any fitness program is the quality of life. You'll be more enthusiastic in terms of the things you do during the normal hours of the day that you are awake. You'll feel better. You'll be more functional. That's the wellness syndrome that you ought to encourage people about fitness. I'm a strong believer that running and fitness doesn't really do anything to prolong life, but it certainly contributes to the quality of life for whatever time you have. That's been real important to me.

Fitness is a component of a whole healthy lifestyle and attitude that we could have. One of the biggest things it can do is enhance the quality of life for individuals.

Any program does not work unless it involves psychological or spiritual awareness of self. Self appreciation, self love. The discipline of diet and exercise intertwined.

I always feel considerably better about myself when I do run because I get kind of a "Rocky" type feeling that nothing is insurmountable.

You exercise for your health or looks. There's just aren't alot of other reasons. It's just not that fun. No matter how great you make it.

I feel much better if I've exercised. Even if I'm tired for a short period after I've exercised, later on I feel much better. I seem to have more energy,
I feel better physically and mentally. You just run away all of your problems of the day. They just seem to go away. When I come back to the house after I've run, even a mile, I will feel a lot better. And I was one of the non-believers that it couldn't happen.

It's sort of a discipline. I'm not so hung up on that I think it's the most important thing in my life. It's something that I'm doing to keep myself healthy. I feel better. I'm not as sluggish. I have enough energy to make it through the day.

I don't feel right if I don't run. It takes maybe a day or two before I really don't feel right. It's been ten years. That summer I discovered how unfit I was. I saw I had a long way to go. It was a very motivating experience.

If I didn't have my outside activities, my fitness activities, I probably would not be in the state of health that I am now. It's really helped me.

Many of the exercisers clear their minds or creatively solve problems while exercising:

Running is really helpful for trying to think things through because you spend the first mile getting out all of the hostilities and all of the frustration.

I do a lot of creative thinking while I'm running. It seems to clear my mind. I've gotten a lot of specific ideas and solved a lot of problems while running. On a few occasions I've gone off to run for the purposes of hoping I could get over a mental block of just a snag. So I'll go out and run and more often than not, I'll solve the problem. It's strange because no other form of exercise does that for me. I think part of it is because it does clear your mind and you're able to focus.

When I'm running by myself, ideas constantly--I think it's somewhat of a disassociation particularly when I'm running long distances. Particularly if I have a problem. Getting out
and running really helps me iron it out.

When I’m running it’s like having a cabin without a telephone. This is why I primarily run by myself. It gives me the opportunity to get away from it all. To do as I see fit. I can leave everything blank.

The point is that running is the kind of experience that allows you to concentrate or allows you to get rid of those anxieties and frustrations that give you trouble.

When I’m running I was thinking through everything—from the beginning of my day to the end, the frustrations, the good things, the bad things, the problems, what I did good and what I did bad. Helped me work things out.

It’s not boring to run round and round. You can either blank out your mind totally to what’s around you or think about what you’re doing. I should have a pad and paper on the track with me sometimes so I can remember the problems I’ve solved.

**Inconsistent Exercisers (Perceived Benefits)**

Many inconsistent and non-exercisers from both gender and age groups in this study often made decisions about exercising based on suggestions by medical professionals or friends, a future event that personally affected them, or a health problem. Exercise was usually not considered a preventive measure for improving health.

The greatest thing that could happen to me in terms of motivation would be if my doctor told me, "If you don’t lose 50 pounds you are going to die." That would do it. If he put in the file that comes back to the office, that I told him to lose 50 pounds, he needs to do it. Then there is somebody else watching me. They (employers) can say, "We paid for this physical for him and we think he should be losing weight." That would
I wouldn't give up the enjoyment side (of eating) totally, unless I was told absolutely that unless I didn't, I would drop dead.

If the doctor said, "You would as an absolute fact be better off if you did exercise," I would exercise under that circumstance for sure.

I'm definitely with the herd instinct. I'll follow anybody, but don't start it myself. Every time I've started an exercise program there's been somebody who wanted company and I go along with them.

If someone else applied pressure like, "We're going to run today or I'm going to get fit." It would probably be male persuasion, a man would help.

I really have to have someone push me into keep on exercising. I was there (Health Spa) because I put my money into it and I don't like to see my money waste away, so I went.

"God, if you give me a heart attack, let me live through it." Maybe that'll be the thing that changes my mind. I live in threat of having a heart attack.

If I had to do it at a certain time, it's more likely I would. Maybe the government should require everyone to exercise a certain amount each day.

One male over forty and four females (two under and two over forty) were motivated to exercise by an event such as a wedding or class reunion. When the event was over, they no longer exercised:

I want to look good. I'll go on a health kick to get myself in shape. When I go to my class reunion, I want them to say, "My God, you're looking great!" I'll kill myself to get in shape.
You have something that you can actually look forward to, that's a good incentive. To me it's always been some special event. Like my sister's getting married in August and I have to get into this outfit.

If we were to sell that book next week, one of our promotional strategies would be to be on talk shows like Phil Donahue. That would get me exercising alot. That would be a real motivator to me.

I went to Gloria Marshall when my daughter was going to graduate. When the graduation was over, I didn't go very much.

I would buy things that almost fit me. So that was an immediate goal for me. If I was just down three pounds, I could get into that dress.

Two individuals (one male, under 40 and one female, over 40) mentioned they would be motivated to regularly exercise for health reasons. They did not perceive exercise as a preventative health measure, but they indicated that they would respond to a health problem with aerobic exercise if necessary. The comments were as follows:

Some type of health problem which required some type of a physical program. Something that scares you. (In response to a question about situations that would influence his attitude toward exercise)

I would hope that I would get myself back into an exercise routine without some kind of crisis occurring. Something telling me that I've really got to get into a routine. If something like that happened to my husband, it would certainly get me back into kind of a role model. We would kind of share.
Many of the inconsistent exercisers did not recognize the value of regular aerobic exercise, so they saw no need to exercise. Several quotations included in the "Participation in Aerobic Exercise" discussion above were related to the lack of perceived benefits. Comments made by males (under and over forty) who do not regularly exercise concerning perceived benefits were:

I find exercise boring and tedious. Most exercises are boring like running and jogging is boring. I think of exercise as boring. Psychologically it doesn't make me feel any better because it's always boring.

I feel I'm in good enough shape. So I guess I don't sense that need right now. I don't feel I'm overweight now for my body size.

My response to a very active physical program is that I don't know whether I would be doing myself good or harm. And until I felt that I really could have a reasonable explanation for that, I think I'll do what I do.

I'm satisfied with my activity level, because I don't want to change anything right now. Maybe in six months from now I will.

One female in her mid-thirties who did not enjoy exercising believed exercise was unnecessary for good health. She was normal weight and claimed to be healthy. She explained,

Right now, the other thing that I don't see it as a necessity or I can't make myself feel that it's necessary is that I've always been an extremely healthy person without exercise. I have alot of energy. I get up everyday and I feel wonderful. It's hard to find anybody today that doesn't do exercise. I try to think, "Wait a minute, what am I missing?" But every time I've ever tried
it, I didn’t think it enhanced my life one bit. The desire for immediate gratification from life’s experiences was evident in more inconsistent exercisers than regular exercisers. Since the benefits from regular aerobic exercise take some time gratification is, of course, postponed. For those desiring immediate gratification, aerobic exercise poses a problem. A female discussed her need for immediate gratification in relation to aerobic exercise by stating,

Mentally and intellectually—I remember all the things that people tell you. This is the only body you have and it’s got to last until you’re 75 or 85. I read all these things about healthy people and how much longer we’re going to live and you better take care of yourself because you’re going to be 85. One of my greatest fears is being like 85 and be off my rocker and have somebody have to take care of me all the time. I would hate that. So I know it’s like an investment in the future. I’m better off saving money for the future (which is another hard thing to do) than I am exercising because I can’t get anything tangible. It’s so far away. I’m an instant gratification person.

One thirty-year-old man began an aerobic exercise program after suffering a mild heart attack. After riding a stationary bicycle and gradually working toward a jogging program, he experienced some physical benefits and expressed a sincere desire to continue exercising. When he was interviewed, he was concerned about his health and explained,

I began to realize that I was only 30 years old and needed to be more aware and concerned with my
health. I seem to have more energy.

However, his participation lasted for about six weeks due to other priorities taking precedence over exercise. Although the term "immediate gratification" was not specifically mentioned by others, the delayed physical and psychological benefits when compared to other time and personal commitments may be a factor which influences the adherence to regular aerobic exercise.

The issue of "priority" is central to comprehending the primary difference between regular aerobic exercisers and inconsistent exercisers. Two females stated,

I have all of these things (heart and feet problems) that should just drive you to go and lose weight and I can't get above it and out of it. It's just not a priority I guess. I'm just not in the habit of doing it.

It's a vicious cycle because I know I would feel better about myself if I'd exercise, but I just don't do it. Well, it seems like I'm a good talker, but it's just not a priority for me since I don't exercise regularly or find the time. Maybe I'll be able to work it into my schedule soon.

Summary: Perceived Benefits

The regular exercisers in this study believed that exercise improved their quality of life and contributed toward a positive mental attitude about exercise and life in general. The exercisers' way of functioning and living was often improved through exercise. Often a wholistic attitude toward wellness and health developed with regular
aerobic exercise.

The sacrifices and efforts associated with regular aerobic exercise were offset by important benefits gained by the exercisers; therefore, exercise was included in busy schedules and was an important part of their existence. After experiencing the benefits from regular exercise, aerobic exercise eventually became a priority in lives of the regular aerobic exercisers. Several regular exercisers disliked exercising, but they continued to exercise because of the desired benefits and results. The inconsistent exercisers often did not exercise long enough to enjoy the benefits of regular aerobic exercise or did not perceive the positive effects of exercise as being beneficial to them; consequently, it was not a priority in their lives.

Many inconsistent male exercisers did not perceive exercise as beneficial or enjoyable. Exercise had more negative reactions than positive connotations. The non-aerobic exercisers lacked the knowledge regarding benefits of regular aerobic exercise and therefore did not sense a need to exercise. If a person did not perceive aerobic exercise as providing benefits or enjoyment, there was minimal motivation to exercise. While males frankly admitted their dislike for regular aerobic exercise, most of the inconsistent females exercisers were dissatisfied with their activity level. They believed there were
benefits and some enjoyment from regular exercise, but they were not committed to regular exercise. Commitment to exercise seemed to depend upon the ratio between the perceived benefits and the sacrifices or risks involved with regular aerobic exercise.

Satisfaction of Needs

Exercising satisfied a variety of needs for regular exercisers. The needs most often mentioned included a) physical fitness and body shape, b) feeling energetic, healthy and productive and c) preparedness. The following discussion addresses these needs.

Physical Fitness and Body Shape.

Attractiveness and "feeling good" were needs expressed by regular exercisers. The following comments from two females and two males under forty support the idea that attaining physical fitness and being in good condition helped satisfy their need for attractiveness. The need for attractiveness was not mentioned as a primary motivator by the exercisers over forty.

I want to be slim and trim. When I get old, I’m going to go down still looking slim and trim and not fat and flabby. I have a great deal of pride in my personal appearance. I've always been that way. My Mom is very much a person who takes alot of pride in her appearance and she brought me up
the same way. I don't like to exercise particularly, but I know what the results are going to be. I want to keep myself in good physical shape and I'm basically lazy when it comes to it, so I have to push myself to do it. I don't like to exercise particularly, but I know if I do what the results are going to be. If I liked it, I probably would attack it with a little more enthusiasm, maybe do a little more, a little longer. When I'm exercising, I feel much more energetic than when I'm not.

I like the way I look since I began exercising. I like the way my clothes fit. I enjoy dressing more than I used to. I'm just a little more careful about my overall appearance.

You can pretty much look at somebody and tell whether they're in shape. I think very few people can look like they're in shape without doing exercise. I mean there's a few people here and there like a model born to look lean and mean. I mean 99.9 percent of the people can't look that way without doing something.

I want to stay trim and fit and don't really want to get out of shape. I think finding the right motivation to exercise. In the last couple years the idea in the back of my mind about the heart attack and to prevent the spare tire syndrome. Those are the two motivators for me for the last three years. That may change as I get older or other things change in my life.

I was losing weight and feeling better, so it was all kind of a synergistic kind of effect. I was lighter and I felt better and I attributed it to running and losing weight.

In response to the question, "Why do you keep exercising?"

a female in her late thirties replied,

Appearance probably. I tend to be very vain. I tell you for women it really is important. There's a tremendous amount of pressure on women, corporately. In leanness and appearance. It's there for men as well. I'm not sure it's as strong with men as women particularly when you're
in the public eye. You have to maintain. I think you have to be a relatively good example of what you preach. For that reason, it probably was career motivated then. I'm pretty competitive.

A male exerciser who recently incorporated a consistent exercise program into his routine stated his beliefs about the importance of motivation on exercise:

You either exercise for your health or looks. There just aren't alot of other reasons--it's just not that fun. No matter how great you make it. I don't know that there are that many motivations showing the benefits.

Inconsistent Exercisers (Physical Fitness and Body Shape)

Several inconsistent exercisers in this study expressed the need to appear to be physically fit, yet were able to attain that need without the usual required effort associated with regular aerobic exercise. Three male inconsistent exercisers who were normal weight with bodies that appeared to be fit, were not motivated to exercise to appear lean and in good physical condition. Their comments were:

I feel I'm in good enough shape. So I guess I don't sense that need right now. I don't feel overweight now for my body size.

They are doing it to attain something I've already got. I look fit. If I didn't look fit, I would exercise.

I've always considered myself to be fairly healthy, so it's hard for me to justify the need to do more strenuous exercise than my stretches I do.
Health was always something I took for granted. Exercise was always something that to a certain extent was looked on as not necessary. I would always stay in shape.

Inconsistent females exercisers also preferred to have the appearance of being in good physical condition but were not satisfied with their activity level. Many valued being normal weight and recognized the value of exercise in efforts to control weight, but these factors did not motivate them to exercise consistently. Some thoughts of inconsistent female exercisers included the following:

The whole value of exercise as I see it is tied in with maintaining ideal weight and feeling good.

Exercise for me has always started for weight purposes. I have a difficult time maintaining my weight, so whenever I am trying to diet, I usually try to coordinate it with an exercise program. There's no question that I should be exercising. It's impending age. I know we don't eat properly. We don't have the best eating habits or sleeping habits.

The situation appears to be that once you gain so much weight, it's so much more difficult to just do normal functions. They seem to tire you more than anything else. I'm not sure if I can do more. I should have something that would keep me more active than I do. My job is sitting down all day.

The clothes being too tight gets me into saying exercise is really part of this, cut down the eating and get yourself in shape.
Five inconsistent exercisers mentioned lack of regular exercise because they are "out of shape" and were self-conscious about their physical abilities or the poor physical condition of their bodies. Several interviewees were overweight which contributed to their feelings of self-consciousness about their bodies. Females were more self-conscious about their body shape than males, as evidenced by the following:

I'm very inhibited in front of other people when doing that kind of thing (exercising), so I just as soon do it in my basement.

There's nothing more frustrating than someone who only needs to tone up maybe five pounds working out on a bench next to you. Women have a tendency to stare at everyone's figures. I know what I look like under these clothes, but I'm not sure I want everyone else to see what I look like. The most important thing is that people who don't exercise and are overweight—the thought and the embarrassment of stripping down. Once you get over that ideal weight, even society demands that you cover up. It's tough for women that have had to cover up for years or months to strip down to nothing and get in there. If you don't wear shorts or leotards at home, why would you wear them in front of all these people? I think people don't really realize this.

I didn't stick with it for more than six weeks because all of these gorgeous jocks who had been working out for three years with two percent body fat. I just didn't want to be seen. They made me feel really uncomfortable. Now it would be a different situation totally if I were at the weight I wanted to be. Basically then you're showing off in addition to maintaining the fitness level.

You're in a class with people who already know all this stuff and you're the klutz. I didn't like it.
I just don't see many people walking around here. I'm self-conscious about walking through the neighborhood. I know so many people and they would probably all stop and ask me if I wanted a ride.

A male concerned about being seen because of his poor physical condition said,

You're able to work individually without anybody else knowing just how far out of shape you are. I'm willing to devote more time and attention to it on that (private exercise at home) basis. I don't want to admit that I'm not as good as I think I am or as I think I used to be.

Another female was frustrated by her inability to participate in most exercise programs because they were too advanced. When asked about her reactions to the thought of exercising, she explained,

Exercise, pain, frustration. Having to expose your one facade to the world, I guess. Having to go from professionalism to scuzzy. I hate being sweaty, I hate that. Plus most exercise programs are set up at a pace where there is a structured class like aerobics or something with a pace where the average person. [sic] Most people overweight are not average persons in terms of activity. Consequently there's nothing like doing an aerobics routine and everybody is facing North and you haven't even got South yet. That's frustrating.

Several interviewees whose companies provide in-house fitness facilities discussed the problems associated with these facilities if individuals do not have physically fit bodies. A man in his forties who began exercising about six months prior to the interview explained,
It (facility) may even be part of my motivation. I don't want to go down there looking like—all sloppy fat and out of shape.

I wouldn't exercise with my colleagues. I would not be interested. I just don't personally like it. They would not be a stress reliever for me at all. That would just be more competition. And to think who would be better able to do the sit-ups and all. I just can see it now—how competitive it would be. That would just add to the situation. The women who work with me, I don't think they'd do it. I don't know. And anyone who was overweight wouldn't do it. Obviously, as you get older there are changes in your body. And that's true for everybody, but it's really more evident with women. Your change in muscle tone and your shift in body weight. Exercise obviously can help minimize that, but I think there are a lot of woman who are sensitive about it. There are a lot of men who are more sensitive because they're not supposed to be.

I don't want anyone to know that I'm here (corporate exercise facility) and if I'm down here working out, I don't want to socialize. I just want to get this over with.

I think the company that has put in the spas and exercise facilities and encourages those kinds of things is super. I really think if we were to set up a half an hour exercise scheduled here in the office, it couldn't do anybody any harm. I give a lot of credit to companies that do that. I do think that everybody should exercise, but I have a great deal of empathy for anybody that doesn't get up off their butt to do it.

Feeling Energetic, Healthy and Productive.

Many respondents claimed that exercising provided them with not only a healthy feeling but also enough energy to make it through the day. A few comments were:

You’ll be much more enthusiastic in terms of the things you do during the normal hours of the day that you are awake. You’ll feel better, you’ll
be more functional. That’s the wellness syndrome that you ought to encourage people about fitness.

I feel better. I’m not as sluggish. I have enough energy to make it through the day.

When I have been exercising, I feel much more energetic than when I’m not. I just seem to have more energy.

I would say that I’m as productive in the afternoon when I come back from my noon run as I am in the morning. I can honestly say that my level of productivity remains fairly high. I find myself being able to handle more stress and do more work much easier.

**Inconsistent Exercisers**

Most inconsistent exercisers did not discuss the need to feel more energetic and its relationship to aerobic exercise. It is possible that they have not experienced the benefit of "having more energy" because they have not exercised long enough to experience this benefit. A female non-exerciser in her mid-thirties claimed she had plenty of energy and therefore saw no need to exercise.

Lots of people say, "I exercise to get energy." I have alot of energy without it. So I keep thinking, "Could I be more energetic?" I’m real happy, so I don’t miss it cause I don’t see it as a crutch. I try to think, "What am I missing?" But every time I ever tried it (exercise), I didn’t think it enhanced my life one bit.
Preparedness.

Several males interviewed in this study believed being in good physical condition enabled them to satisfy the need to be mentally and physically prepared for life’s situations or emergencies. In effect, they saw exercise as providing them with an advantage over the average non-active person. When defining "fitness," one male noted that being "prepared" was part of being "fit." Females did not define "fitness" in this way. Comments from the males were as follows:

To know that you’re above average. You’re in condition. If the need arises, you can run two miles. It gives you that feeling that you are prepared. The average person isn’t in very good shape. Doesn’t maintain themselves. They don’t have the need to."

I think of preparedness when I think of fitness. Being prepared to react to a situation whether it’s mentally or physically. Not being sluggish in a mental or physical response. I think being physically fit helps keep you mentally fit. In a sense, an ideal physical fitness program probably would just keep you at your optimal state of preparedness to react to physical emergencies. I seem to see an incredibly low level of physical fitness in people in general. Most people are not prepared to react in emergencies as needed.

The need for being physically prepared for life’s situations was not mentioned by any of the inconsistent exercisers.
Summary: Satisfaction of Needs

A fundamental difference between regular aerobic exercisers and inconsistent or non-exercisers interviewed in this study arose during the discussion concerning the use of exercise to satisfy basic human needs. A need was specifically sought and acquired through exercise and some benefits resulting from consistent exercise eventually became needs that continued to be satisfied through exercise. Many associated regular aerobic exercise with the desire to attain physical fitness and to feel energetic, healthy and productive because, basically, being physically fit satisfied those needs. Regular exercisers were motivated to continue exercising in order to be and/or appear to be healthy and fit. Ego drive and vanity motivated several of the regular exercisers. In addition, society has created an image of success which indicates that a successful person have the appearance of fitness including a trim body shape with firm muscle tone, and exercise satisfied this need in some individuals. Finally, recognizing the benefits of regular aerobic exercise and subsequent personal acceptance of the value of exercise was critical for aerobic exercise to become a priority in a respondent's life.

Inconsistent and non-exercisers had similar needs, namely to attain physical fitness with the appearance of a
firm, toned body; however, these needs typically were satisfied through means other than physical exercise. A feeling of self-consciousness about the shape of one's body or physical abilities also limited physical activity for some inconsistent exercisers.

Program development in adult fitness usually focuses on the cognitive aspect of aerobic exercise. This data, however, indicates that program development may need to include the affective domain in an attempt to influence personal values and subsequent priorities. In other words, influencing attitudes, feelings, beliefs and ultimately commitment to exercise. A recognition that individual needs can be met in a variety of ways with aerobic exercise as only one possibility would add credibility to an educational program of adult fitness.

Sacrifice/Risk Versus Benefit

In addition to perceived benefits and the satisfaction of needs, sacrifices and risk-taking are also important factors which influence a person's commitment to exercise. According to the data, the sacrifice of time was a potential problem for aerobic exercise. Creating a balance between the desire to exercise and other commitments, as well as incorporating exercise into busy schedules were the major time-sacrifices associated with
aerobic exercise. The risks associated with regular exercise were generally potential injury and pain.

**Time Sacrifice**

According to many individuals interviewed in this study, the biggest problem with regular exercise was finding the time to incorporate an exercise program into their schedules. A few comments from male exercisers over and under forty were:

It's a matter of just making sure that you take the time to do it. I go on my lunch hour and just exercise for 40 minutes.

If I don't run at noon, I probably won't run. It gets to be an impossibility that I can't do it other times. Doing it at noon is really the only opportunity I have. So I found the one trick that works is that I write on my calendar either run or lunch with Mr. Y. They know those things are personal and she doesn't try to schedule things.

I kind of made a pledge to myself, a New Year's Resolution sort of thing, to do it. I think just that commitment that I've made to try to do it. And all I do is take my calendar and maybe two or three weeks in advance mark off my lunch on that day and say, "I'm not going to book a lunch on that day." That's the only way I can do it.

A female executive in her late thirties incorporates exercise into her work schedule by completing her routine early in the day:

It has to be easy and simple for me to do it. It has to be habit. Something I don't even think about. I have to have something that really goes right along with our lifestyle and doesn't interfere with my time. Somebody was demanding
more of my time. That's one of the reasons I got into mornings. I had to juggle the time where there wasn't any interference. After work there's too many things competing for my time. I think that's true particularly for women. You've got to take time from somebody in order to do that for yourself. Not much is competing with 6:00 AM, except your sleep.

Another female in her thirties resents the time spent in preparation before and after exercise, but she still includes aerobic exercise in her schedule. She explained,

I don't like to prepare ahead of time in the morning. Get all my stuff together so I can go to the club after I get away from the office. And then the follow up, the whole shower. I have to wash my hair again. It's the time before and after that I resent more than the actual time that's being spent exercising. I don't mind the physical activity itself, it's working it into my schedule.

**Inconsistent Exercisers-Time Sacrifice**

Many inconsistent and non-exercisers in this study claimed that they simply did not have the time to exercise. Schedules were filled and other commitments took precedence over exercise. Males and females of both age groups noted that time was a deterrent to an exercise program. A few of the male's comments were as follows:

The problem is finding the time. I just don't know when I can fit it in. I leave the house about seven and teach at night and don't get home three nights until after 10:30, so time is an important issue.

Probably just fitting it into a regular schedule. Again, I think that's just a matter of discipline. That would be the only problem I would think.
I've never been one to make excuses. If you want to do it, you'll press your time to get it done. It's lack of discipline. It's probably a certain carry over that I have always been in relatively good condition.

By the time I get home I'm so tired that I don't feel like exercising. Too much of your whole life span is spent working. Not enough spent just relaxing and enjoying life.

Just finding the time to work it in. I set priorities and right now I just don't have any more time for exercise.

Somehow I just didn't arrange to have the time anymore. I didn't make the effort to go do it.

I have a hard time working it in and it's real frustrating to me.

Three inconsistent exercisers disliked spending their leisure time exercising. These respondents did not perceive exercise as beneficial or enjoyable, so they did not exercise. The first two comments were by females under forty and the last comment was from a male in his fifties:

I've never been able to find an exercise, with the exception of racquetball, that I felt was enjoyable. I do not enjoy exercising. I have so little time when I can just sit and do something that I want to do. I resent having to do exercises. I really would prefer to be spending my time with my nose buried in a good book.

The last thing I want to do after I get two kids in bed is to sit down and exercise. I want an hour to myself. I'll start exercising at 40 for 80 or I'll start exercising at 45 for 80. They say it's never too soon to start. Right now I don't have the time.

I only have so much time that is so called "free time" and I don't want to spend it exercising. I
also am a little scared to go out and walk again because of my foot pain. I'm satisfied with my activity level.

Balance

Finding an appropriate balance is something that many regular exercisers interviewed in this study have struggled with since beginning their exercise program. Often they became obsessed with exercise. This problem was discussed by both males and females, as follows:

I felt I pushed myself too hard. The penalty I paid for it just wasn't worth it. In terms of time, in terms of energy, I expended for that where I should have expended it for other things. It did drain me. I had reached a point where the trade-off, the cost of running that much, the cost of exercise in other aspects of what I was doing. Time was a big part of it, it took one and one half hours. I noticed myself being more tired.

I've got it pretty much at hand in terms of the time commitment to it. You have to put it into perspective with your life, family responsibilities, job responsibilities and how exercise fits into that. Some people do too much. Typical American, they don't do it or they do it all the way.

The first two or three years, I was extremely goal oriented from the standpoint of going farther and farther and farther. I'd go out on Sunday and run 15 miles every Sunday and that kind of thing. Now I run to stay in shape and feel good and that's it. If it was 100 degrees out, I'd want to run 10 or 12 miles. I would do it at the expense of my business and it affected my family. I mean I was that compulsive with it. And now I run three, four and five miles. That's one thing, but it's not taking anybody else's time.

A lot of other things stem from running once you start. You start really feeling good, you start
watching what you eat, your whole attitude changes toward yourself and the outside world. I mean totally. The more I ran, the more I wanted to run. It became an obsession almost. It ruled my whole life for awhile. Probably for a year. I didn't do anything if I didn't run. I didn't think anything could take over my life like that. I started off running probably two miles a day and then it got up to six miles a day and then eight and 10 and 12 on weekends. Then I decided I really didn't want it to rule my life like that. I wanted to get in control. I didn't want to give it up, but I thought if this is the way it's going to be, I suppose I'll have to give it up and do something else. I didn't want the quilt feeling that I had if I didn't run that day. So I finally decided that four miles a day would be adequate. Plenty. I was to the point where I wasn't going to become any more fit. Right now I'm running three or four miles a day.

It's sort of a discipline. I'm not so hung up on it that I think it's the most important thing in my life. It's something that I'm doing to keep myself healthy. I feel better. I'm not as sluggish. I have enough energy to make it through the day.

You definitely have to put it into perspective. It needs to be part of your lifestyle. It's like anything else, it has it's place and priority in life.

Two female exercisers discussed balancing their psychological or physical needs with their commitment to daily exercise:

I don't want to be a robot and I don't want to live my life like a robot and I hope I'm not giving you that idea. There's got to be that human aspect that some days I just don't feel like getting up. And I'm not going to be sacrificing it (exercise) at the expense of other things also.

I also try to give myself a little bit of a break in that if it's the end of the day and I originally planned to go run four miles and I'm
tired. I just want to go home or cycle then I'll just do that. Because I guess I figure that I know for a fact that I'll do a marathon or a triathlon this year. When that training starts then you don't have the option of not doing it. It really is a stress to train for something like that because you don't have the option of saying, "I don't want to run today, well that's too bad." So I try to do something at least once if not twice a day. Whether it's lifting or running or cycling.

Pain and Injury

Several exercisers in this study experienced muscle-pain when they first began their exercise regimen. One female exerciser over forty discussed the pain associated with starting an exercise program:

That's where people fall down. They get stuck because they don't want to go through that transition. You're whole body is changing. It hurts. They can't get past that. It's also very boring.

Some of the regular exerciser will not allow themselves to stop exercising because they fear either the physical consequences of sedentary living or the potential difficulties associated with returning to a program if they stopped exercising for awhile:

Once I got to thirty days I got to the point where I said, "I can't quit because I'm beginning to feel so good that I don't want to have to go through the process of starting to train and this type thing. I become a very compulsive person.

Getting started again was just awful. It takes a continual pattern of doing if for awhile before it's habit again.
I'm almost afraid to quit now that I've broken that 30 day barrier. If you do it for thirty days or more it becomes a habit.

The motivation now is probably a little, a large part fear of the effects of non-exercise. More preventive type of measure. My family has a history of heart disease and I want to minimize as much as possible those risks.

Since overtraining, generally motivated by an exercise-obsession, can cause injuries, most exercisers in this study were aware of potential injury, and they usually took time to warm-up, stretch and cool down.

**Inconsistent Exercisers**

Some inconsistent and non-exercisers were concerned that exercising could injure them. The males expressed concerns about potential injury from aerobic exercise based on conflicting information regarding exercise, particularly the fear of heart damage:

I would have to have some proof that it would make a difference.

I would want to be assured that I was doing myself good instead of harm. I'd want somebody whose opinion that I trust to tell me, that as far as diet and diet habits and the exercise program, which I would assume would just go hand in hand for personal fitness and everything. That being done and I was assured that certain exercises would do me good, I would be willing to make the commitment.

Two male inconsistent exercisers were injured in the past. Psychologically their injury prevented them from exercising
beyond their physical limitations. Their responses reflected their distrustful attitudes toward exercise.

I was injured when I was thirty which is why I stopped exercising. The fact that I couldn't compete and win was psychologically depressing. I don't think I consciously decided not to exercise, I just stopped. It's just the habit. A, I was injured and B, I was losing more frequently. Getting older and slower. It does get to be the ultimate pain.

After the injury and surgery, I couldn't play anymore, so I just more or less stopped even thinking about exercise. I think that injury may have been what started the change in my attitude about this. I just didn't want to have any part of it anymore.

Summary: Sacrifice/Risk Versus Benefits

Appropriate perspectives on exercise and avoiding injury and pain were issues often addressed by the exercisers. Individuals were willing to make sacrifices and take risks when exercise was perceived as a benefit which satisfied needs. These sacrifices and risks were often considered "problems" by inconsistent and non-exercisers, and they were used to rationalize sedentary living. Regular exercisers admitted the time problem, but because they were committed to exercise and it was a priority in their lives, they took the time to exercise.

Many of the inconsistent and non-exercisers did not recognize that the personal benefits and advantages which
could be obtained from regular exercise often offset the necessary time sacrifice. An exercise program demanded a time commitment, so exercisers established their priorities. They not only made time for exercise, but they also balanced their exercise regimen with their other time commitments. If exercise became obsessive, its perceived value usually became diminished, and it stopped or became intermittent. Eventually a balance was reached. When exercise was a priority, it was included in the exercisers' lives without dominating their schedules.

There was often pain associated with initiating an aerobic exercise program due to muscle soreness and poor physical aerobic abilities. Many inconsistent exercisers stopped exercising with the onset of the pain; they did not allow the muscles to be conditioned. This initial conditioning period was often an incentive for regular exercisers to continue with their programs--basically, they did not want to experience this pain again. Some exercisers became inconsistent exercisers due to an injury which altered the routine of regular exercise.

Overtraining as a result of compulsive exercising often resulted in injury which required the exercisers to rest and allow the injury to heal. Injuries from overtraining often forced exercisers to review their exercise attitudes and practices, a review which usually
prompted the exercisers to put their programs into perspective.

Conditions or Situations That Affect Exercising.

Certain conditions enhanced the likelihood of an individual consistently participating in aerobic exercise. The major factors that influenced males to commit themselves to exercise were convenience, weather and the opportunity to be outdoors, and a partner. A few comments from the males were as follows:

One of the things that has clearly helped me is to have someone else to do it with you. It's like a racquetball partner who you know is going to meet you at 9:00 Monday night, you'll be there. They are depending on you so you're going to go. You don't talk yourself out of it. Having someone else to do it with is very helpful. Having someone who is at least willing to prod you, kind of push you along. There's ground for that if there's someone to play that role.

I don't like to be restricted when I run. I don't like to have warm-ups on. Typically I guess my philosophy is I run outside if I can run in my shirt and shorts.

Regular female exercisers in this study preferred to run outdoors, but they usually exercised indoors during the winter. Exercise that was part of a routine or pre-scheduled class often resulted in greater commitment to physical activity:

I would rather not take the chance of breaking my leg or ankle to get out on the main drag where
it's clean (from ice and snow). I'll just gut it out inside.

If I don't go right after work, I won't go. It gives me time to do something else in the evening.

I have to have something where I could just run out the door in the morning. I have to have something that really goes right along with our life styles and doesn't interfere alot with my time. The most difficult part is that little hassle with yourself in the morning. I have little techniques I use. I get my jogging suit out and lay it right there on the bed. So I don't think about it. I just get up and put it on.

I like being at the Center. There's alot of people and activities.

It's amazing how the group activity spurs you on and it's much easier to do it in a group situation. It goes faster.

**Inconsistent Exercisers**

Inconsistent exercisers were also influenced by many of the factors which prompted regular exercisers to exercise: a partner, convenience, variety in routines, and habitual routines. They said,

Something we (he and his wife) could do together.

There is no way I could get up early in the morning to exercise.

I think having a facility and the atmosphere to exercise would definitely increase my exercise.

I refuse to run on an inside track.

I'll start as soon as the weather is decent enough.
I’ll try to find something that I like to do that is not going to bore my brains out.

I’m not going to sign up for the aerobics class myself. I am definitely with the herd instinct. I’ll follow anybody, but I don’t start myself.

The hours are so important. The thing that is so intriguing to me is that they are open at six in the morning and close at midnight.

**Summary: Conditions or Situations That Affect Exercising**

The majority of regular exercisers were committed to exercise regardless of weather conditions, convenience, or availability of a partner. The inconsistent exercisers often allowed other variables determine their exercise habits. Exercise, for them, was not valued to the extent that they continued an aerobic program.

**Overall Summary: Factors Affecting Commitment to Exercise**

The crucial difference between regular aerobic exercisers and inconsistent exercisers was the level of personal commitment to an exercise regime. The factors that influenced the commitment were childhood experiences, satisfaction of needs, and exercise participation. The benefits and needs that were satisfied usually motivated the regular exercisers to continue their aerobic activities. Inconsistent exercisers, however, did not accept the advantages of regular exercise as an important part of their lives. Because inconsistent exercisers were
not committed to regular aerobic exercise and therefore, did not consider exercise a priority in their lives, they were often influenced by extraneous variables which interrupted any attempts to establish a consistent program.

Positive childhood experiences, parent's exercise values along with their exercise practices and regular participation in exercise had the greatest impact on adult commitment to consistent aerobic exercise. The development of personally valuing health and appearance through aerobic exercise had its strongest roots during childhood; thus, it is imperative that positive experiences in physical activities be generated for children and teenagers. Parents of young children may be motivated to regularly exercise in order to establish the value of exercise for preventive health. The benefits of aerobic exercise were realized after consistent involvement in an exercise program. Many exercisers, moreover, became committed only after participating long enough to experience the benefits provided by aerobic exercise. Consequently, motivating individuals to continue exercising until the intrinsic benefits associated with regular exercise are generated may be an important educational and psychological goal for fitness educators.
Fitness Definition

Discussions of the meaning of the word "fitness" revealed little difference among all of the exercisers. Most of the respondents believed that "fitness" required an alert mind, as well as a body with firm muscle tone which was prepared to perform optimally through a strong cardiovascular system. A few definitions included the following:

I think of preparedness when I think of fitness. Being prepared to react to a situation whether it's mentally or physically. Not being sluggish in a mental or physical response. I think being physically fit helps keep you mentally fit. In a sense, an ideal physical fitness program probably would just keep you at your optimal state of preparedness to react to physical emergencies.

Fitness is the capability of the body to function optimally, and the key work there is OPTIMALLY. In daily needs, emergency situations and recreational needs. To function optimally at a high level, you must be physically fit. It's not that my heart works better, that's part of it. It's not that I am stronger or not that I look younger, or whatever. I'm capable of living a much higher quality of life.

I'd say being physically fit in the sense that you can run a reasonable distance if you had to, do so many chin ups immediately and so many push ups. I guess too, a diet that's reasonably good, not overweight or underweight.

Fitness is regular activity that assists in muscular tone and helps maintain weight, attitude. Something done on a regular basis, three or four times a week.

A firm body as well as good physical feeling of fitness. Just being able to run a given distance makes me feel fit.

Feeling slim, trim and feeling really vibrant and alive. Just an overall feeling of great health. Just
a great attitude about everybody.

The activity of exercise to the maximum for the greatest benefits.

Psychological fitness. There's no question in my mind that my physical fitness is part of the mind-body continuum.

**Inconsistent Exercisers**

Inconsistent male exercisers who were under forty characterized fitness in much the same way that regular exercisers did. For example, they, too, believed that "fitness" required a body which performed as needed, with good cardiovascular strength, as well as a mind which reflected an overall positive outlook on life. For example,

Health. Fitness describes an entire attitude and it's more linked with mental attitudes. It describes a discipline. A certain amount of productivity. To a certain extent it's a virtue. You feel good about what you’re doing and what you’re accomplishing. It probably transcends even into your work efforts, work ethics.

Cardiovascular fitness. Healthy heart by having maximum endurance with an appropriate amount of body fat. Just being healthy through exercise and good eating.

Being able to play basketball if I want without getting super tired and being in shape, with weight.

Males over forty who were not regular exercisers used similar words to describe fitness, but did not specifically refer to mental abilities and preparedness. Their definitions were less elaborate, and they did not consider
cardiovascular fitness:

Fitness is personal restraints. Your attitude toward self-discipline. And then diet and some activity that keeps you fit.

Being able to do what I want to do without getting winded or huffing and puffing. I can do just about what I want.

If you're happy with your body, it gives you a better outlook on life. It's like a college education, it makes you enjoy life more.

Lean and mean. Not overweight. It's a look a person has. They're not blubbery, look in shape.

For the inconsistent female exercisers, fitness meant physical shape and health:

Healthy. Being in good shape.

Someone who is nice and thin. Within ten pounds of their ideal weight. Being able to comfortably walk about eight blocks.

Being healthy, no disease. Feeling like you could tackle a physical emergency. That I feel good. I can do the things I want to do.

Having a body that doesn't have a lot of flab and sag. Having a body that's relatively trim. Having some breathing capacity.

Muscles toned up pretty good. A healthy person.

The way a person looks. Lean and trim.

Summary: Fitness Definition

Overall, concepts used when defining fitness were similar for all the interviewees. Fitness meant preparing the body to perform optimally and to respond to physical necessities or desires through adequate strength,
endurance, muscle tone and body weight. The ability to enjoy life and achieve adequate mental alertness were also important components when respondents described fitness. Even inconsistent exercisers accurately described "fitness;" however, those meanings were often personally irrelevant. Awareness of fitness and health created an understanding of fitness, but the definitions were not enough to motivate inconsistent exercisers to exercise for fitness.

Media

Messages from the media had minimal impact on exercise behavior for regular exercisers, and some even believed that the media presented an unrealistic picture of the results of exercise. Concerns about the media were as follows:

It's a self-motivating type thing. (Referring to running)

I ignore it. I never pay attention because it's not relevant. If you exercise, you exercise because you want to exercise and nothing in the media is going to matter.

It's up to each person to make his own decision about what he'll do.

Advertising would not have created an image that I should be doing it. It's more a one-to-one kind of a personal feeling.

It's creating a misconception in our society that everybody in our society is exercising.
In some ways that is detrimental because people can get awfully discouraged when they don't look like that three weeks after they join a spa. It really portrays an unrealistic attitude of exercise.

**Inconsistent Exercisers**

The media produced two major effects on inconsistent exercisers. It either served to remind them about exercising, or it had no effect on attitudes and exercise habits:

Every time I hear that (media message) I think, "Oh, I should be out there running again." So it really does have an effect on me.

It kind of keeps reminding me that I really should get myself back on better track than you have been.

I'll see something in a magazine, I'll say, "Yea, I really should be doing something about that, but I won't."

We can't always achieve the body that you see on TV, but it might make your body a little bit better than what it is.

It really doesn't affect me.

It really doesn't affect me. I don't feel guilty about it, that I don't do those kinds of things.

It doesn't mean anything to me. I don't feel guilty about it.

Another concern expressed by inconsistent exercisers under forty was the commercialism associated with fitness or exercise attire advertisements that portrayed unrealistic body shapes:

They are so geared to the commercialism of it all. They are trying to sell equipment, shoes and they don't really care about health. It's all too
commercial. I just don't really pay attention to it, it's of no interest to me.

There's money in that you have to have the right shoes, you have to have clothing, the facility. There's alot of money involved in it.

Fat people are out of the running. Male/female relationships and some business relationships. You're getting these messages that are not the least bit subtle. Who has the most fun? People who look like they're 22.

Summary: Media

Media messages had little effect on exercise behavior in both regular and inconsistent exercisers. For many regular exercisers, it often reinforced their existing commitment to exercise. The media reminded many exercisers of potential benefits, but it also often produced feelings of guilt in some respondents. Overall, the decision to exercise was considered personal and did not depend upon media messages for implementation. Media messages did not provide incentive to inconsistent exercisers, but served more as a "reminder" of the importance of exercise.

Age

The impact of age on exercise decisions varied between exercisers and inconsistent exercisers. Concern for body deterioration with increasing age was evident in exercisers from both age groups and gender. The concerns toward aging were expressed as follows:
You are very aware of your own body deterioration. Up until age 30 you’ve got the idea that you’re going to live forever.

The older I get the more convinced I am that I need to maintain weight, fitness and attitude.

Within the past three or four years, I’ve just seriously started doing an exercise program. Everything changes after 30. It’s all downhill.

I do it because I’m aging and I want to have more energy.

Several males over forty used exercise to cope with the feelings and negative attitudes associated with mid-life crisis and aging. One male chose exercise as an alternative to adopting unhealthy habits:

I think right now at least the most recent decision is addressing my mid-life crisis and my age and being aware that I can handle it in two ways. You can go into depression and start doing things that are injurious to your health or you can just address it and have fun with it. I’m trying to do that.

Inconsistent Exercisers

Health maintenance was also a concern to inconsistent exercisers as they got older; however, they did not act on their concerns by exercising regularly. For example,

I’ve always considered myself to be in excellent health. I’m 38 years old and you start getting concerned about those things. Health was always something you took for granted.

If you start exercising late in life it’s a big struggle. You have to work up to it.

Once you get off your exercise program it’s harder and longer to get back in. It takes you longer to get back to the shape you were in before.
I get more and more concerned the older I get as far as physical problems when I get older. There's no question that I should be exercising.

Getting old is very frightening to me and I want to do everything I can nutritionally and exercise to maintain a healthy body. (But she does not regularly exercise and is overweight.)

**Summary: Age**

Getting older is inevitable and can be approached with a positive attitude. Taking measures to diminish the physical deterioration associated with aging might produce such an attitude. As regular exercisers approached middle age, many recognized that exercise can reduce the natural progression of aging; therefore, they used it as an incentive to exercise. The exercisers believed that the benefits from exercise may offset any perceived negative effects of aging.

Most inconsistent exercisers did not make the effort to regularly exercise in an attempt to offset the effects of aging. Many were aware that exercise would slow down the normal aging process and possibly make them more healthy, but they were not committed to exercise. Inconsistent exercisers often rationalized sedentary living with explanations such as being too old to begin exercising or the difficulty of initiating an exercise program once one is out of the habit. Other commitments and interests often took precedence over exercise.
Attitude Toward Nutrition, Diet and
The Relationship Between Diet and Exercise

In this study, most regular exercisers, both males and females, over and under forty, had similar ideas regarding diet and its relationship to exercise. Many gradually made changes toward a healthier diet by eating more fruits, vegetables and complex carbohydrates. They ate less red meat and fats and ate more fish or poultry. A general health awareness existed, with exercise and nutrition contributing toward a healthy body.

The effect of regular aerobic exercise on foods eaten and ultimately weight management was evident in two relationships that emerged from the data: a) exercise offset the volume of food eaten in terms of caloric balance and b) exercise reduced the amount of food eaten. These phenomenon were primarily attributed to increased discipline with health habits in general. Several comments illustrated the exercisers’ thoughts concerning diet and its relationship to exercise:

I think if you care enough to want to exercise and know why you’re exercising means you’re aware of your body and how it works and what kinds of things are good for it and what kinds of things are bad for it, so that kind of generalizes to nutrition.

It does give me a certain semblance of weight control. When I run I’m more conscious of the fact that if I’m relatively trim, it’s easier for me and I feel better. One follows the other.
It's a big part of the whole. For the first time, being so in tune with myself that I can really trim down what's good and what's not and how I feel and don't feel.

The nice thing about exercise is that eventually that controls your weight and you don't have to do it to control your weight.

I exercise and then in that consistent mode of doing that, feel in control of myself when I eat and I do not overeat.

Without the running, I was eating junk food all the time in between meals. When I exercise I find that I don't do that.

When I first started exercising regularly, running in particular, I was reading everything I could get my hands on. In terms of fitness and exercise and nutrition and diet and weight loss. I really changed my whole diet and nutritional outlook.

I'm alot more conscious about what I eat. I try to eat the best things to get the energy.

**Inconsistent Exercisers**

The inconsistent exercisers in this study were aware of the role exercise had in weight reduction and weight maintenance. They were also often motivated to exercise in conjunction with a weight reducing diet. A few comments were as follows:

Exercise for me has always started for weight purposes. I have a difficult time maintaining my weight, so whenever I am trying to diet, I usually try to coordinate it with an exercise program.

It needs to be a combination of both for it to do any good.

I go on a diet and think I'm going to exercise. Each time I get away from doing it. It's just too boring.
I like to eat and I don’t like to exercise.

I can remember when I lost a good deal of weight, I was very conscious about keeping up the walking and swimming.

Inconsistent exercisers recognized the relationships among diet, exercise, and the concept of wholistic health. Their comments were similar to the beliefs of exercisers:

Diet along with exercise is the key. Then you are eating healthy things usually and exercising and it puts together a whole package.

Really you have to watch what you eat. If you are in an exercise program, you're body will signal you right away (if you don’t eat healthy foods.)

If a person is exercising they will have a better diet.

If you’re going to be concerned about your health, then obviously nutrition is important. A person has to have the right kinds of food to stay healthy.

Some inconsistent and non-exercisers believed it was necessary to either eat nutritiously or exercise. They explained,

I almost think to a certain extent that can be either or. I think I could have lost that weight by exercising more.

If I felt that exercise was the only way I could keep my weight down, I would exercise. I’m conscious everyday of the number of Calories I eat anymore. I have to be, when you don’t exercise.

If you aren’t going to exercise, it is critical to eat right. That’s one of the things I feel less guilty about with exercise. If you eat your basic food groups everyday and make sure that your children do that too. We’re very healthy in this family. Probably if I cooked less and was not concerned with that (nutritious foods), I might have more time to exercise. If I’m not going to exercise, then I think
it's my job to eat right. That's one thing that we do pretty well around here. Despite my working hours we have good, well-balanced meals.

If I did exercise I maybe could lose some weight or eat more.

Summary: Attitude Toward Nutrition, Diet and the Relationship between Diet and Exercise

The majority of the interviewees believed nutrition and exercise were important components of a healthy life style. Many regular exercisers believed nutrition contributed as much as exercise for attaining physical fitness. The exercisers expressed basically accurate knowledge of nutrition information and foods were usually chosen to provide necessary nutrients. Discipline with most health habits created a wholistic approach toward healthy living, including weight management which motivated the exercisers to increase caloric expenditure and often decrease the quantity of foods eaten. Inconsistent exercisers, in comparison, were basically aware of the dynamic relationship between exercise and diet and were often conscientious about their food selection in an attempt to counter their lack of exercise. They did not, however, consistently combine increased energy expenditure and decreased caloric intake in an attempt to manage their weight.
Summary of Findings

Commitment to regular aerobic exercise was influenced by the exerciser's a) attitude toward exercise which was affected by exercise participation and childhood experiences, b) willingness to make necessary time sacrifices and to risk the possibility of pain or injury and c) the sense of discipline required to incorporate exercise into a daily routine.

Positive and successful experiences as children and adolescents in physical activity or sports were factors that contributed to most of the male exercisers' positive attitudes toward regular aerobic exercise throughout their lives. Many female exercisers' physical activity experiences were limited and they became committed to exercise after regular participation. Many regular exercisers' parents demonstrated strong values toward regular aerobic exercise through consistent involvement in physical activities. These actions positively influenced the value of regular exercise for these exercisers. Many regular exercisers were also encouraged and supported by family and friends.

Negative experiences in physical activity during adolescence influenced attitudes about exercise for some inconsistent exercisers. Lack of positive experiences had
a lasting impact on the respondents' attitudes toward the value of regular exercise. The females had a higher incidence of negative experiences than males. This phenomena might be related to the fact that females traditionally were not involved in physical activities in the past, and they were also unable to successfully compete. 

Exercisers typically felt personally responsible for their health and were willing to take the necessary actions to be healthy and physically fit. Inconsistent exercisers, in contrast, depended upon authority figures or special upcoming events to motivate them to exercise. Their decision to exercise, then, was often made as a result of external influences, as opposed to internal motivations to exercise for health and fitness. 

The benefits of regular aerobic exercise such as enhanced quality of life and improved mental attitude encouraged further exercise. An interesting finding indicated that a person's attitude toward exercise often changed after regular participation in an aerobic exercise program. They began enjoying the benefits associated with physical activity and were then committed to continue exercising. The needs that were satisfied by exercise included the following: the desire to be in good physical condition; the desire to feel energetic; the desire to be
healthy and productive; and, finally, the desire to be prepared for life's situations and emergencies. Benefits that resulted from regular exercise often became needs as the exercisers became accustomed to the advantages of better health such as, feeling better, having more energy, and having an attractive, lean, healthy looking body. Decreasing the effects of aging was also a benefit mentioned by the regular exercisers.

Most of the inconsistent exercisers had many of the same needs as regular exercisers; these, however, were either met in other ways or subconsciously unimportant or devalued. The need to be in good physical condition with an appropriate body weight did not warrant consistent action; although some inconsistent exercisers maintained the appearance of being physically fit without regular exercise. Often the desire to exercise was related to the need to lose weight; however, the time necessary to experience weight loss was longer than many inconsistent exercisers were willing to wait.

Both regular and inconsistent exercisers were concerned with getting older and subsequent body deterioration, but the inconsistent exercisers were unwilling to take consistent action, by regularly exercising, to minimize the effects of aging.
Several exercisers had a greater need for immediate gratification than the regular exercisers. Benefits resulting from regular aerobic exercise were usually not realized for several weeks or months after starting an exercise program, and the inconsistent exercisers often did not exercise long enough for those benefits to be realized. Time conflicts with other commitments was the explanation most frequently given for sedentary living. Inconsistent exercisers often allowed other commitments to take their time or they preferred spending time reading rather than exercising. Eating and relaxing, for example, provided immediate gratification. Exercise, however, required time and effort, a sacrifice many of the inconsistent exercisers were unwilling to make. The underlying problem continued to be that the inconsistent exercisers were not committed to exercise and therefore exercising was not a priority in their lives. Since exercise was important to the regular exercisers, they admitted to making time-sacrifices for exercise. The regular exercisers were also disciplined to include exercise in their daily schedules.

Another factor discussed during the interviews was the impact of media messages on the desire to exercise. Media messages often reinforced or encouraged fitness activities of many regular exercisers and reminded many inconsistent exercisers about the need to exercise.
The final factor was nutrition. Many regular exercisers considered nutrition an integral part of their personal commitment to better health. They made gradual changes toward healthy diets and strived to maintain normal body weight. Regular exercise required a discipline that was often transferred to eating. Many regular exercisers, moreover, reported eating less food which resulted in feeling in control of their bodies.

For the most part, the inconsistent exercisers recognized the importance of nutrition for good health, but were not disciplined enough to eat healthy foods on a regular basis. Many inconsistent exercisers were overweight, as opposed to the regular exercisers who were normal weight. Four inconsistent or non-exercisers made a conscious effort to eat a healthy diet in an attempt to offset their lack of exercise.
The purpose of this study was to explore and analyze the attitudes, beliefs and motives toward aerobic exercise, as well as the interpretations of experiences related to exercising that may affect fitness behavior. It was anticipated that these findings would provide beneficial information towards the development of successful fitness education programs based on a deeper level of understanding than is currently available. The findings from this study suggest that a variety of factors have influenced peoples' commitment to regular exercise, factors which may need to be considered when developing educational programs in adult fitness. The conclusions of this study indicate that effective exercise programs should convey not only facts concerning aerobic exercise but also help people identify experiences and attitudes in context with their life space which affect commitment and subsequent priorities toward exercise.

Throughout this project, the attitudes, beliefs, and motives of individuals who regularly participated in
aerobic exercise were compared to persons who did not regularly exercise. The major difference between regular aerobic exercisers and inconsistent exercisers was the affect of attitudes toward exercise, their past exercise experiences, and their current beliefs concerning the importance of exercise on commitment to regular exercise.

Two primary factors that contributed toward this commitment to regular exercise were a) whether exercise was perceived as an important factor in attaining or maintaining health and appearance, and b) the presence of positive childhood exercise experiences, as well as parental values that included regular exercise as an important component of health. Other factors which related to respondents' commitment to exercise included amount of support and encouragement from individuals of importance in their lives and their orientation toward personal control over their lives. The implications of these findings will be discussed in relation to five propositions suggested for program development in adult fitness.

PROPOSITION 1: INCORPORATE EXISTING DATA CONCERNING BENEFITS AND ATTITUDES TOWARD REGULAR AEROBIC EXERCISE INTO FITNESS EDUCATION PROGRAMS.

The regular exercisers in this study demonstrated a strong commitment to health maintenance which included regular aerobic exercise and physical activities. Exercise
habits, experiences and values of parents influenced the values, attitudes and behavior toward fitness. Those who experienced consistently positive physical fitness experiences throughout their lives had the strongest commitment to aerobic exercise, with regular exercise being a priority in their busy daily routines.

The perceived benefits and needs satisfied by regular exercise, motivated many consistent exercisers in this study to continue exercising. These perceived benefits and needs were as follows: (a) enhanced quality of life, (b) improved mental attitude, (c) improved physical condition and body shape, (d) increased energy, and (e) feelings of preparedness. Inconsistent and non-exercisers often had similar needs, but the needs were not satisfied through regular aerobic exercise.

Results from other studies also found the importance of perceived benefits as crucial for motivation. Riddle (1980) found consistent joggers had strong beliefs concerning the benefits of jogging along with valuing a body that was in good physical and mental condition. The non-exercisers had neutral beliefs concerning the consequences of jogging and negative attitudes regarding the time and effort that jogging requires. (Riddle, 1980) Shephard (1985) found regular exercisers perceive exercise as being valuable for health and fitness, social experiences,
tension release and attaining personal satisfaction from high levels of achievement. Rhodes and Dunwoody (1980) determined that 93 percent of the regular exercisers experienced improved health and almost 70 percent enjoyed life. These findings indicate a perception of the benefit, enhanced quality of life. Eighty-six percent had greater energy, and stamina and the majority had increased abilities to manage stress and job tensions. (Rhodes & Dunwoody, 1980) It appears from this study and others that commitment to regular aerobic exercise is related to the value placed on perceived benefits and consequences associated with exercising or not exercising.

Individuals who were committed to exercise found the time to include it in their schedules. The results from a 1984 Gallup Survey for American Health found that individuals who exercised at least five hours a week integrated exercise into an energetic, health-conscious lifestyle. (Harris & Gurin, 1985) Sixty percent of these avid exercisers said their workouts had become "a natural part of daily life" and did not decrease the time they spent at work or with the family. The primary reasons these men and women started exercising were health, career benefits and stress control. (Harris & Gurin, 1985)

Program developers in adult fitness should consider those factors that were shown to affect exercise commitment
in this study: perceived benefits, interpretations of exercise experiences, responses to childhood physical activities, parental attitudes and exercise behaviors, and overall attitudes toward regular exercise. Fostering exercise commitment by affecting attitudes that value regular exercise as a preventive health behavior may be a major component in program development.

PROPOSITION 2: CONSIDER THE IMPACT OF CHILDHOOD EXPERIENCES ON ATTITUDES AND MOTIVATIONS TOWARD EXERCISE.

Childhood physical activity experiences influenced the value placed on regular exercise of the adults in this study. The regular exercisers had more positive youth experiences with physical activities than the inconsistent or non-exercisers. Stress associated with competition and excelling in sports or other physical activities often created lasting negative attitudes toward physical activity. Because of the impact childhood experiences had on adult attitudes toward physical fitness in this study, program developers may benefit by encouraging program participants to remember and discuss their own experiences in physical fitness. The experiences, whether positive or negative, can then be acknowledged according to their impact on persons' adult attitudes toward exercise and lifestyle.
The significance of parental exercise attitudes and behaviors when establishing the value of health maintenance through regular aerobic exercise is important for today's children. Many respondents in this study recognized the effect their parent's exercise behaviors and attitudes had on their commitment to exercise. Some individuals, moreover, may be motivated to exercise in order to contribute toward their own children's exercise future.

The results of this study suggest that elementary age children and preschoolers be involved in regular aerobic physical activities. These activities, moreover, must be perceived as "fun" in order to maintain consistent participation. As noted, children involved in regular aerobic exercise are likely to participate in aerobic exercise as adults. The male exercisers in the study, for example, were more involved in exercise for most of their lives than the females; they considered it a "way of life." Judging from this study, females should be encouraged to participate in physical activities early in life, in order that they develop skills which allow them to experience confidence in performance. This self-confidence in various activities or sports may increase the likelihood of their participation throughout their lives. One interviewee even strongly recommended educating parents about finding successful physical activities for their youngsters in an
attempt to create positive values toward regular exercise. Encouraging young children to be active is a great gift for future health and contentment.

PROPOSITION 3: ASSESS HEALTH PRIORITIES, VALUES, BELIEFS, CONSTRUCTED MEANINGS, MOTIVATIONS AND CHILDHOOD EXPERIENCES THAT INFLUENCE POTENTIAL COMMITMENT TOWARD AEROBIC EXERCISE.

Conducting needs-assessments and determining perceived benefits from regular aerobic exercise provides valuable information for influencing individual values, commitments and priorities. Correlating aerobic exercise benefits to appropriate needs, along with the necessary fitness information, may motivate program participants to initiate and continue aerobic exercise. Regular exercise participation often results in an attitude change toward commitment to regular exercise and subsequent behavioral change.

Several inventory-type questionnaires and instruments available for assessing commitment toward regular aerobic exercise by determining attitudes, intentions, and motives toward exercise include Fishbein’s Behavioral Intention Model (Fishbein & Ajzen, 1975; Riddle, 1980), Attitudes Toward Physical Activity Inventory (Kenyon, 1968a; Martin & Dubbert, 1985) and the Self-Motivation Inventory (Dishman & Gettman, 1980). These models and inventories were discussed in the Literature Survey section in detail, but they will
be discussed here, according to their relevance to establishing effective program development.

Fishbein's Behavioral Intention Model was shown to be effective in predicting behavioral intentions toward jogging based on attitudes, beliefs and evaluated consequences of the regular jogger. (Riddle, 1980) Employing Riddle's questionnaire which focuses on the initial assessment of behavioral intentions, may provide increased understanding of intentions toward exercise. Interpreting the results of the questionnaire would require skill and a detailed understanding of Fishbein's Model. (Fishbein & Ajzen, 1975)

Kenyon's Attitudes Toward Physical Activity Inventory (ATPA) has been incorporated into several studies for assessing attitudes by asking individual's to rate the instrumental value of exercise according to six sub-scales. (Harris, 1970; Shephard, 1985; Tolson & Chevrette, 1974;) The ATPA scale limits individuals to choose those characteristics included on the inventory; other relevant factors such as, the personal impact from regular exercise, childhood physical activity influences, or personal responsibility for health, may be overlooked as factors which influence physical fitness attitudes.

The Self-Motivation Inventory also provided information for predicting exercise behavior and may be beneficial in the initial assessment of psychological variables
influencing one's exercise behavior. (Gale, Eckhoff, Model & Rodnick, 1984; Wankel, Yardley & Graham, 1985) Martin and Dubbert (1985) found that the level of motivation predicted exercise behavior. They concluded that individuals with high levels of self-motivation were more likely to continue with an exercise program than those who were not highly motivated.

An interview or discussion technique also provides valuable information regarding health priorities, values, beliefs, constructed meanings and motivations toward exercise in an informal atmosphere which permits spontaneity, openness, and the possible clarification of meanings. Other factors that affect an individual's priorities, such as a willingness to make time sacrifices and develop a disciplined approach toward exercise, influence commitment and thereby need to be determined by physical fitness coordinators. According to Simon, a person's beliefs, attitudes and actions are determined by those values which the person holds as important and can be ascertained by using values clarification strategies such as "Favorite Things I Like to Do," "Moral dilemmas" and "Ranking activities." (Simon, Howe, & Kirschenbaum, 1976) These strategies require individuals to clarify and articulate those issues and values which are important in their lives. If health, appearance or adequate energy are not important
values, the coordinator should spend time discussing the benefits and consequences of alternatives in an attempt to alter existing values and priorities. If no apparent interest in aerobic exercise exists, then educational efforts may have minimal effect.

PROPOSITION 4: DEVELOP STRATEGIES FOR ENCOURAGING REGULAR PARTICIPATION IN AEROBIC EXERCISE.

This study also found that attitudes toward regular exercise often shifted or changed from less to greater commitment because the respondents experienced positive consequences from their consistent participation in aerobic activities. The physiological or psychological benefits of exercise were not realized or valued until they were personally experienced. After actually experiencing the benefits, a number of former inconsistent or non-exercisers in this study are now consistent aerobic exercisers. They may not enjoy the actual exercise, but they continue to exercise because they do enjoy and desire the benefits of regular exercise. Exercising eventually became a need in some of the respondents, a need which they had to fulfill in order to sustain the effects of the aerobic exercise program.

According to Harris (1970), when sedentary men participated in a regular physical activity program for one
year, their attitudes became similar to those of men who had a history of consistent physical activity. In addition, the 1986 Gallup Survey, conducted to determine Americans' exercising attitudes and behaviors, found an increased commitment along a continuum representing levels of exercise; each level of exercise seemed to instigate greater amounts of exercise enabling the exerciser to progress from a sedentary to an active, aerobic lifestyle. "As sedentary people become weekend joggers, it seems weekend joggers may be adding aerobics, weight-training or other sports." (Gurin & Harris, 1987, P. 54) In another study, Morgan (1977) found initial involvement to be a critical behavioral variable in exercise adherence.

Fishbein (1975) suggested that attitudes, beliefs and perceived consequences affect intention and motivation toward a given behavior. Findings from other studies support the finding in this study--attitudes toward exercise and beliefs about the consequences of health behaviors often influenced initial exercise behavior. (Dishman & Gettman, 1980; Morgan, 1977) Dishman, Ickes and Morgan (1980) found that the level of motivation influenced exercise adherence; thus individuals with high levels of motivation toward exercise were regular exercisers despite the influence of external variables which may have affected commitment. Another study found that current physical
activity habits contributed significantly to the prediction of intention to exercise. (Godin, Cox & Shephard, 1983) The authors concluded that the strength of an exercise habit parallels the intentions to exercise, thereby suggesting that the formation of intentions may reflect not only cognitive learning, but also affective experience of a behavior. (Godin, et al., 1983, p. 245) It seems, therefore, important to allow potential affective experiences to occur in an attempt to influence commitment and subsequent motivations and priorities.

Encouraging inconsistent and non-exercisers to participate in aerobic exercise programs which are consistent with an individual's physical capabilities, allows for experiencing benefits, feeling positive as a result of successes and continued participation. Several inconsistent exercisers in the study discussed problems associated with typical aerobic programs that were too advanced for people who were either overweight or in poor physical condition. Inconsistent and non-exercisers were often self-conscious about the condition of their bodies or physical abilities, which may indicate another important consideration in program development. Reducing the phenomenon of "feeling self-conscious about one's body" is also vital to continued involvement. Franklin (1978) recommended that exercise be recognized as a lifetime pursuit which requires
a pleasurable program, a program that insures a continued spirit of expectation as well as accomplishment.

Fun, variety and success, then, may also be key components to adult fitness programs. These factors encourage the inconsistent-exerciser to retain interest in the program long enough to enjoy the benefits. Paul Perry suggested that the "fun factor of exercise" is often omitted in exercise programs due to emphasis placed upon the exercise physiology terminologies such as, \( \text{VO}_2 \text{ Max} \), resting pulse rate, intensity, and duration. He stated,

You need only watch prominent cardiologists and fitness experts on TV arguing the value of exercise, or read the latest medical studies, to know the fun factor doesn't rate much mention. Yet it might be among the most important reasons people exercise. Let's face it: People aren't going to work out- not for long, at least- if they don't enjoy what they're doing." (Perry, 1987)

Wankel (1985) suggested focusing on the enjoyment attained or the quality of an exercise experience in order to maintain adherence. He noted many people experience personal satisfaction and overall enjoyment through vigorous physical activity; however, the symbiotic relationship occurs only after an extended period of involvement. (Wankel, 1985) Planning an enjoyable experience by relating the participant's goals with the program factors, especially during the initial phases of undertaking an exercise program when many participants are discouraged, may
encourage commitment. (Wankel, 1985)

Intervention strategies that have been utilized by some aerobic exercise programs to increase participation include rewards, goal setting, lotteries, personal contracts or spouse involvement. These techniques may motivate an individual to continue exercising until the physiological and psychological benefits can be realized. Attitude modifications with subsequent intrinsic motivators, leading to commitment toward exercise may occur after the benefits have been personally realized by the exerciser.

Social support was another important variable affecting the exerciser's attitude toward exercise in this study. Encouragement often resulted in feelings of commitment either to themselves or to others who were expecting their participation in the program. Scheduling people with similar levels of conditioning or body weight into an exercise session may prove beneficial. Studies by Massie and Shephard (1971) and Wilhelmsen, Sanne, Elmfeldt, Grimby, Tibblin and Wedel, (1975) found exercise adherence increased with group exercise. Support and encouragement from spouses were evident in many of the regular exercisers interviewed in this study. Other studies have also found such support to be a crucial component for exercise participation and commitment. (Andrew, et al., 1981; Heinzelman & Bagley, 1978; Laffrey & Isenberg, 1983; Mann,
PROPOSITION 5: DETERMINE FEELINGS OF PERSONAL RESPONSIBILITY FOR HEALTH AND SUBSEQUENT COMMITMENT FOR PREVENTIVE HEALTH BEHAVIORS.

Another phenomenon discovered through this study that has relevance for program development in adult fitness was that exercisers felt responsible for their own health; consequently, they were self-motivated enough to work toward positive health behaviors which not only maintained health but also prevented illness. Inconsistent exercisers were more influenced by external variables such as an upcoming event or societal expectations; consequently, they did not feel as responsible for their health. This findings led the researcher to explore the concept of "locus of control" for relevance to exercise behaviors.

Rotter's Social Learning Theory (1954) states that the potential for behavior is a function of the expectation that the behavior will lead to desired reinforcements. Reinforcements can be any action, condition or state that changes behavior by either increasing or decreasing the likelihood of its occurrence. Behaviors resulting in reinforcements which have value to an individual are referred to as "internal reinforcements," and those that are known to be valued by society or culture are called "external reinforcements." The term "locus of control" originated
from social learning theory, and it refers to internal versus external control of reinforcement. The internal locus of control is based on the degree to which reinforcement is contingent upon one's own behavior, and the external locus of control is based on the degree to which reinforcement is contingent upon other persons, chance, fate or luck. (Rotter, 1975) Internally controlled persons feel responsible for successes and failures, and they believe that personal ability largely determines the outcome of events affecting life. Externally controlled persons believe successes and failures are beyond personal control. (Rotter, 1966)

Rotter used an Internal/External (I/E) scale to measure the locus of control and several studies have used the scale to predict exercise behavior. Sonstroem & Walker (1973) used Rotter's I/E scale, Kenyon's ATPA Inventory, and a fitness evaluation to determine the locus of control in relation to attitude toward exercise and fitness scores. They found that individuals with an internal locus of control had more favorable attitudes toward exercise and better fitness scores than individuals with an external locus of control.

Noland and Feldman (1985) developed an exercise locus of control measure because, according to Rotter (1975), better predictions of behaviors were achieved when using
locus of control measures specific to the behaviors being studied. They found that when participants believed exercise behavior was within their control, they would exercise a greater number of times, as well as exercising longer, than those who did not believe exercise behavior was their responsibility. (Noland & Feldman, 1985) External scales developed to measure chance and powerful others were negatively associated with exercise behavior. In other words, when exercise was attributed to either chance or powerful others, there was less exercise behavior. (Noland & Feldman, 1985)

Laffrey and Isenberg (1983) conducted a study to determine the relationship of internal locus of control, value placed on health, perceived importance of exercise, and participation in physical activity during leisure. The findings of the study indicated that neither health value nor internality affected health behavior through physical activity during leisure. Laffrey and Isenberg (1983), however, argue that factors other than health value were involved in one's decision to exercise such as, the six characteristics included in Kenyon's work (social experience, health and fitness, vertigo, aesthetic experience, catharsis, and ascetic experience). They also discuss the possibility that exercise was not as important for health reasons as it was for social or appearance
benefits. Laffrey and Isenberg (1983, p. 195) reinforce the importance of assessing "what is important to the patient/client and using client perceptions as the basis for interventions."

Health locus of control scales were developed to measure internal health locus of control, chance health locus of control (external) and health locus of control by powerful others (external). (Wallston, Wallston, & DeVellis, 1978; Wallston, Wallston, Kaplan & Maides, 1976;) Wallston and Wallston (1980) reviewed the health locus of control research and concluded that the "value of health" was often the measure of reinforcement received for practicing healthy behaviors. They found internally controlled persons who value health often seek more health information and engage in health behaviors to a greater extent than externally controlled persons who do not place a high value on health. (Wallston & Wallston, 1980)

Individual orientation toward being in charge of one's health, therefore, has implications for participating in consistent aerobic exercise. The regular exercisers interviewed in this study demonstrated tendencies which indicated that they had a greater sense of control over their exercise behavior and health than the inconsistent exercisers. The regular exercisers felt responsible for their actions and considered the consequences of the alternatives
available to them when they made decisions. The inconsistent exercisers' decisions regarding regular exercise tended to be influenced by future events, societal norms or suggestions from an authority figure, close friend or relative. They believed their exercise behavior was left predominantly to chance, powerful others or the environment. Similarly, the Gallup survey conducted in 1986 for *American Health* found about one-fourth of the respondents believed they had control over their health; they also had more health-related changes in their lives such as eating a healthier diet and exercising at least five hours a week. (Gurin & Harris, 1987)

A formal internal/external locus of control measure was not conducted in this study; therefore these findings might be considered "tendencies" and taken as considerations for additional research. Determining exercise locus of control using Noland and Feldman's scale would be beneficial in program development because individuals who are internally motivated to exercise would require different educational programs than those motivated for external reasons. For example, because "internals" are willing to exercise for its intrinsic benefits, educational programs could support their commitment with either relevant and current medical and psychological information or appropriate techniques for various objectives when exercising. Educational programs
might consider suggesting appropriate goals for establishing personal goals, as well as objective measures for ascertaining progress toward these goals. The objective for "externals" could be to involve them in a physical activity by devising external motivators for continued participation long enough for the participants to experience the benefits of exercise.

**Propositions for Program Development in Fitness Education**

In summary, the following propositions, based on the findings of this research, were suggested for program development in physical fitness education:

1. Incorporate existing data concerning benefits and attitudes toward regular aerobic exercise into fitness education programs.

2. Consider the impact of childhood experiences on attitudes and motivations toward aerobic exercise.

3. Determine health priorities, values, beliefs, and motives leading to potential commitment toward exercise.

4. Develop strategies for encouraging regular participation in aerobic exercise.

5. Determine feelings of personal responsibility for health and subsequent commitment for preventive health behaviors.

In support of these propositions, an article reviewing exercise strategies and motivational considerations for
optimal health concluded as follows:

...a lifelong pattern of regular physical activity is recommended to optimize health related benefits. Strategies which have been successful in combating high attrition rates in exercise programs include educational efforts to increase the participants' awareness of exercise benefits; assessment procedures which determine the participants' needs, provide continuous motivational reinforcement, and accurate record improvement; and written contracts which hold participants accountable for reaching realistic goals within specified time periods. (Serfass and Gerberich, 1974, p. 79)

Further Study

The findings from this research contribute to the growing body of knowledge regarding exercise behavior in a unique way. The findings provide insights based upon the perspective of the respondents in the context of their life and present circumstances, as well as reinforcing findings from other studies regarding the multifaceted and interconnected nature of exercise behavior. Researching a single factor of exercise behavior often limits the practitioners' understanding of the interrelated and complex realities that often surround exercise behaviors.

Admittedly, this exploration of the various influences on exercise decisions in context with the respondent's life circumstances was limited by the small sample size. Because of that limitation, additional research based on two primary findings of this study would provide better understanding of their significance in fostering positive
aerobic exercise behaviors. These findings include a) the lasting impact of childhood experiences in physical activities experiences on the adult respondents; and b) the importance of commitment and regular participation in aerobic exercise, which subsequently led to attitude changes toward greater commitment and further aerobic exercise. Both of these findings could be researched in greater detail with a larger sample to determine their significance in the multiple-realitites of the exercise phenomenon. For example, investigative studies or possibly a longitudinal study focusing on the impact childhood experiences could further our understanding of long-term consequences of these experiences. Another study could further document the impact of current exercise attitudes and experiences on future exercise commitment and behavior.

The findings of this study could be transferred to other settings where managerial and professional level people are exercising. The sample was originally selected to limit the focus of the study to a relatively homogenous group and because previous studies suggested professional persons were more likely to exercise. Consequently, many of this study’s findings may be of interest to those who are concerned about the reasons some professionals chose not to exercise. Additional studies could further advance the many realities interacting on professionals’ exercising
decisions. Although it is inappropriate to transfer these findings to all Americans, since the sample was not representative of all segments of Americans, many of the parameters discovered—such as childhood influences or other factors affecting commitment may apply to other segments of the population. Admittedly, however, the specific realities within other population segments would most likely differ from the professionals included in this study. Interestingly, the survey conducted by the Gallup Organization and reported in the March 1987 issue of American Health found that the exercise trend is common to all age and sex groups, and people of all income and education levels. (Gurin & Harris, 1987)

It would also be interesting to verify several crucial findings of this study by designing a controlled, quantitative study that measures the effect of one or two variables. An example would be to determine the effect of regular exercise on non-exerciser's attitudes toward exercise by first administering a scale that would measure, among other factors, attitudes toward exercise, then implementing an aerobic exercise program (treatment) and then re-measuring attitudes. Other benefits or results of regular exercise could also be measured. Such a study demonstrate that actual exercise does or does not impact on future attitudes toward exercise.
According to the 1986 Gallup survey on exercise behaviors conducted for *American Health*, the exercise trend is here to stay; 69 percent of Americans now exercise, an increase of 15 percent from a similar study conducted two years ago in 1984-85. (Gurin & Harris, 1987; Harris & Gurin, 1985)

Just in the past two years, a new survey shows, about 25 million Americans started exercising for the first time. But now that a vast majority are working out, the next step is to develop the attitudes that can come with a better body. (Gurin & Harris, 1987, p. 53)

It is believed that the findings from this study, as well as others' findings on attitudes toward exercise have provided an understanding of the factors influencing fitness behavior especially as they relate to individual life circumstances. It is unrealistic to expect everyone to regularly exercise, but it is realistic to provide people with knowledge and encouragement through effective program development that produces programs that affect attitudes, values and commitments to regularly participate in healthy, aerobic exercise.
CHAPTER VI
SUMMARY AND CONCLUSIONS

Background

During the last decade the number of individuals participating in regular aerobic exercise has increased toward a lasting societal trend that continues to gain momentum. In conjunction with the increased interest and participation in aerobic exercise, there is an increase in research literature documenting the physiological benefits and the psychological advantages and motives for exercising. Those studies researching attitudes toward physical fitness are typically conducted using inventories or questionnaires that require respondents to select from predetermined responses. The impact of how the factors that influence exercise attitudes and behaviors interact within the context of an individual's life space in accordance with individual perceptions and interpretations is limited by methodologies that can not adequately explore these constructed meanings and interactions.
Physical and psychological advantages of regular exercise has been effectively communicated to warrant the increase in Americans now exercising. Two concerns, however, initiated this research study, namely, a) why do so many informed individuals fail to incorporate a regular exercise program into their daily routine and b) how do factors influence attitudes toward regular exercise?

Exercise programs that focus primarily on providing information about appropriate methods to exercise as well as incorporating motivational strategies may succeed when a program participant is internally committed to exercise. It was hypothesized that in addition to knowledge, adequate attention needs to be given to the impact of differing individual experiences, attitudes and interpretations toward exercise. Identifying these factors then, became the purpose of the study. The value of this study should be the suggested propositions, based on the findings, for contributing toward the development of meaningful educational fitness programs.

Purpose

The purpose of the study was to explore and analyze the influence of attitudes, beliefs, motives, and other factors concerning regular aerobic exercise in adult males and females. Patterns of interaction among these factors were
explored in the context of the life circumstances of individual exercisers and non-exercisers. The ultimate intent was to develop suggestions for the development of programs in adult fitness that could enhance the willingness of people to exercise.

Research Design

Open-ended interviews were used to gather in-depth data from male and female adult exercisers and inconsistent exercisers. Forty interviews were conducted; 20 were with regular exercisers and 20 were with inconsistent or non-exercisers. Males and females were equally divided within each exercise group and age ranges were also divided between 40 and under and 41 and over. An interview guide was developed and pilot tested prior to conducting the interviews. The interviews were transcribed and then analyzed by searching for emerging topics with supporting comments and comparing responses with those made by other respondents. Patterns and themes emerged as key findings and were compared within the extensive transcribed logs of data accumulated throughout the study. A personal computer was used for the mechanics of sorting and comparing data.

The interview technique supplied a data base that included respondents' individual descriptions and interpretations of relevant factors. The study assumed that differ-
ing individual perceptions about exercise could best be understood by viewing them in the context of each respondents' life and present circumstances. The interview enabled these differing perceptions to be realized by the ability to probe for additional interpretations and contextual meanings.

Findings

Interacting factors impact within the context of a person's life circumstances on commitment to regular aerobic exercise. The interactions and factors that influenced commitment and attitudes toward exercise were a) the nature of past exercise experiences and the level of participation in exercise, b) the impact of childhood experiences with physical activities on adult attitudes and values toward exercise, c) the influence of parental attitudes toward physical activity and parents' exercise behaviors on the development of values and attitudes, and d) the willingness to make necessary time sacrifices and be disciplined in order that exercise could be incorporated into daily routines. When an individual was committed to exercise, the exercise became a priority and aerobic activities were maintained.

Perceived benefits from consistent aerobic exercise motivated regular aerobic exercise to continue exercising
and often these benefits were crucial for influencing attitudes toward regular exercise. A gradual shift in attitude toward consistent exercise after experiencing the benefits associated with regular exercise was evident in the data.

Childhood experiences with physical activities created a lasting impact on adult attitudes and values toward exercise. Many of the exercisers have been active all of their lives and consider exercise a way of life. In contrast, lack of activity or negative experiences with activities as children were more typical with the inconsistent exercisers.

Closely associated with childhood experiences was parents' values and exercise behaviors. These values influenced the development of childhood values toward either valuing regular exercise for health maintenance or not placing importance on the need to regularly exercise. Most of the regular exercisers' parents were physically active throughout life while inconsistent exercisers' parents were more sedentary. Parental involvement in activities often created positive experiences in childhood physical activities because of family interactions and togetherness.

A willingness to incorporate exercise into personal schedules occurred when attitudes and experiences toward exercise were positive. The committed individuals
considered exercise their personal responsibility and exhibit a discipline toward exercising.

A positive attitude, influenced by parents' values toward exercise and positive exercise experiences throughout life fostered commitment essential to exercise. The cyclical effect that is generated provides a rationale for providing successful physical activity experiences for children and adolescents, and involving non-exercisers in appropriate fitness programs until benefits are realized. The benefits experienced from consistent exercise then may shift attitudes toward valuing regular consistent exercise.

Messages in the media relating to exercise often reinforced the exercising habits of regular exercisers; whereas the same messages either created feelings of guilt or simply reminded inconsistent exercisers about the need for exercise, but did not influence exercise behaviors.

Both regular and inconsistent exercisers were concerned with getting older and the body deterioration associated with aging; however, the regular exercisers felt more in control of their lives and believed exercising could minimize the effects of aging. Age was also used to rationalize sedentary life styles among inconsistent exercisers.

There were no major differences between the attitudes of males and females or respondents 40 and under and respondents over 40.
Limitations of the Study

The small sample size could be considered a limitation in terms of generalizing the findings. The intent of this research, however, was to discover in qualitative, contextual terms how factors influence fitness behavior. Studying a relatively small number of cases in depth was preferable in this situation to studying more cases in terms of one or a few variables.

During any interview process, the interactions between the researcher and respondent are inevitable. These interactions were used to explore at a deeper level than is possible with other methodology, the inter-relationships with life circumstances and interpretations that affect fitness behavior. Procedures that minimized the effect of biases were implemented in order to enhance the trustworthiness of the data.

The researcher analyzed the findings by searching for emerging topics, patterns and themes within the data base; therefore, the researcher's values and personal experiences affect the interpretations of the data. As a guard against false interpretations, the findings were grounded in the supporting data and procedures were used to verify interpretations.
Discussion and Conclusion

The impact of these findings on program development is speculative because educational programs in adult fitness were not the focus of this study. However, the findings will hopefully contribute to future program development. Five specific propositions were developed as considerations for developing adult fitness programs based on understanding and appreciating the impact that attitudes and life experiences have on commitment to consistent aerobic exercise. Decisions to exercise and subsequent behavior are influenced by multiple factors and realities within the context of life's circumstances. This reality offers major challenges to the development of effective programs in adult fitness.
INTRODUCTION: I’m exploring the area of exercise, especially why some people exercise on a regular basis and others do not. I know there are many factors to consider when people think about exercise. I am especially interested in YOUR attitudes, opinions and feelings about exercise. I’m interested in a variety of ideas and yours are valuable to this research. It doesn’t matter, for this interview, whether you exercise or not; (we will, of course, be discussing that) however, what is important is your thoughts about exercise. Also, there are no right or wrong answers and I’m not expecting you to say certain things, so please be honest and as open as you can be when sharing your ideas.

DIRECTION OF THE INTERVIEW:

a. First, we’ll talk a little about you: your hobbies, interests, family, job, etc.
b. Second, we’ll discuss the broad topic of physical fitness with most of the emphasis on aerobic exercise. We’ll spend most of our time discussing your thoughts, ideas and feelings.

c. And finally, we’ll talk about nutrition and your diet and it’s relationship, if any, to exercise.

To begin, then, I DON’T KNOW YOU VERY WELL, SO COULD YOU TAKE A FEW MINUTES AND DESCRIBE YOURSELF TO ME--YOUR INTERESTS, HOBBIES, FAMILY, WHATEVER?

TELL ME ABOUT YOUR CHILDHOOD ACTIVITIES AS THEY RELATE TO EXERCISE?

---Success/failure; positive/negative
---Fun
---Active in Sports

CAN YOU DESCRIBE YOUR FEELINGS ABOUT THE THOUGHT OF EXERCISING?

---Probe for: Past experiences; positive/neg & why?
   Media impact?
   Age? Any influence/change of habits? Why?

---Watch for: Health awareness/ Guilt
(If appropriate): WHAT CONDITIONS/ SITUATIONS ARE IMPORTANT TO YOU FOR EXERCISING?

DO YOU OR HAVE YOU EVER DONE ANY CONSISTENT TYPE OF EXERCISE?

(Watch for: Satisfaction with current activity level)

— What got you started? Why? (If appropriate)

— Tell me about your exercising habits:

(Probe for: frequency, duration, intensity/ monitoring time of day, years/months exercising)

— Were there any significant events in your life that influenced your decision to exercise or not exercise? (---How? Why?)

— Did your age or your stage in life influence your attitude toward exercise or your decision to exercise? (---How? Why?)

— Has your attitude changed since beginning your exercise regime? If so, could you explain that change? Why?
--What keeps you exercising?; Why do you keep doing it?

(Watch for: benefits, needs, etc.)

--Why did you stop exercising? (If appropriate)

--What problems do you associate with regular exercise?

IF YOU COULD DESIGN THE PERFECT/IDEAL PHYSICAL ACTIVITY TO MEET YOUR NEEDS, WHAT WOULD THAT BE?

---Type; time commitment, conditions/situations

---Why?

HOW DO YOU DEFINE THE TERM "FITNESS"?

I'VE NOTICED AN INCREASE IN THE NUMBER OF MESSAGES IN THE MEDIA ABOUT EXERCISE, FITNESS, ETC. HAVE YOU SEEN OR HEARD THESE MESSAGES AND WHAT IS YOUR REACTION TO THEM?

(Watch for inspiration, guilt, frustration, etc.)

(Non-exercisers): HOW DO YOU RELAX? EXERCISERS TELL ME THEY USE EXERCISE TO RELIEVE STRESS, HOW DO YOU COPE WITH DAILY TENSIONS?
(Non-Exercisers; if appropriate): ARE THERE ANY SITUATIONS OR CONDITIONS THAT MAY CHANGE YOUR ATTITUDE TOWARD EXERCISING?

NUTRITION/DIET: HOW DOES NUTRITION FIT INTO ALL OF THIS?

DESCRIBE YOUR DIET, GENERALLY, PARTICULARLY IN TERMS OF TYPES OF FOODS EATEN.

Are you generally satisfied with your diet: Why?

WHAT CHANGES, IF ANY, DID YOU MAKE IN YOUR DIET AFTER YOU BEGAN EXERCISING? Why?

WHAT CHANGES WOULD YOU LIKE TO MAKE IN YOUR DIET NOW? WHY?

Exercisers Only: IS THERE ANYTHING, IN ADDITION TO WHAT’S ALREADY BEEN SAID, THAT WOULD BE IMPORTANT TO CONSIDER WHEN CONVINCING SOMEONE TO BEGIN EXERCISING? Why?
APPENDIX B

CONFIDENTIALITY STATEMENT
CONFIDENTIALITY STATEMENT

Your responses made during this interview will be used strictly for this research. The tape recording will be transcribed verbatim and then erased when I am confident that the transcription is accurate. This will assure you that you will not, in any way, be identified with what is discussed during this interview. A code number will be assigned to this interview for my use so that I can identify you, should I need any clarification of your comments or verification of my interpretations. The code identifier will be destroyed at the completion of the research. Are there any questions or concerns before we begin?
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