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An investigation of the physical and psychological reasons given for membership non-renewal in a selected Community Wellness Center

Bryan, Scott Coleman, II, D.A.

Middle Tennessee State University, 1989

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An Investigation of the Physical and Psychological
Reasons Given for Membership Non-renewal in a
Selected Community Wellness Center

Scott Coleman Bryan II

A dissertation presented to the Graduate Faculty of Middle Tennessee State University in partial fulfillment of the requirements for the degree Doctor of Arts

December, 1989

An Investigation of the Physical and Psychological
Reasons Given for Membership Non-renewal in a
Selected Community Wellness Center

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Abstract

An Investigation of the Physical and Psychological
Reasons Given for Membership Non-renewal in a
Selected Community Wellness Center
by Scott Coleman Bryan II

This investigation's purpose was to determine reasons influencing 400 former members of a Community Wellness Center not to renew their membership between 1986 and 1988.

After permission was granted by the Center to conduct the study, a review of the literature was conducted in order to develop a questionnaire for data-gathering purposes. The original questionnaire was modified in response to a panel of experts' recommendations which was then followed by conducting a pilot study.

The validated questionnaire was administered via telephone to 319 of a possible 400 former members for a response rate of 79.75 percent.

The telephone survey collected data related to: (a) personal factors—smoking and exercise behaviors, education, exercise, and martial status; (b) program factors including subjects' perceptions of parking convenience, exercise equipment, and fitness instructors; (c) other factors explored spousal support, personal injury, and responsibilities at home and work; and (d) situational

determinants such as cost of program, time available, exercise partner and qualifications of the fitness instructor.

The author hypothesized there would not be a significant difference in the manner in which 13 groups (gender, educational levels, etc.) respnded to the Likertstyle questions. An Analysis of Variance (ANOVA) was used to test the hypotheses at the .05 level of confidence. Where the ANOVA showed significant differences in variables possessing more than two sub-groups, a Duncan's Range Test was administered to determine between which variables significance existed.

Results revealed former members tended to be white (93.1%), married (66.7%), and between 20 and 40 years of age (60.2%). Most (64%) worked in a white-collar occupation, were nonsmokers (81.6%), and continued to exercise three days a week (49.7%). More females (48.2%) than males (24.8%) exercised with a friend.

Supervised compared to unsupervised memberships, type of transportation utilized, and gender yielded the most statistically significant differences.

It was concluded that decisions not to renew Wellness

Center memberships were caused by a combination of personal,

program, and other situational factors.

Acknowledgements

This dissertation is lovingly dedicated to my wife,
Nancy. Without her love, encouragement, prayers, and many
sacrifices, this project would not have been possible.
Thank you, Nancy, for helping me to pursue my dreams.

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To Dan Bausam and Damon Eubank--as the song says, "Thank you for being a friend."

Most of all, I am grateful to my Lord and Saviour,

Jesus Christ, for the provision of strength and grace to see
this project to its end. Psalm 37:4: "Delight yourself in
the Lord and He will give you the desires of your heart."

Table of Contents

		Pag	;e
List	of	Tables v	i
List	of	Appendixes	i
Chapt	er		
	1.	Introduction	1
		Statement of the Problem	3
		Delimitations	4
		Questions and Hypotheses to Be Answered	4
		Questions to Be Answered	4
		Hypotheses to Be Answered	5
		Definitions of Terms	8
	2.	Review of Related Literature	1
		Personal Factors 1	1
		Program Factors	5
		Other Factors	0
	3.	Methods and Procedures	2
		Subjects	2
		Time Involved	2
		Instrument Development 2	2
	4.	Analysis of Data	4
		Section IDescriptive Data of Subjects 2	5
		Comparison of Male to Female Respondents 2	Q

Chapter		Page
R	Reported Success of Exercise Goals	. 29
E	xercise Modalities Participated In	. 33
L	ocation and Modality of Subjects Continuing to Exercise	. 35
S	Section IIIResponse to Exercise Enticement Questions	. 35
S	ection II(Analysis of Variance)	. 38
5. Sum	mary and Discussion	. 59
S	Section IDiscussion of Findings	. 60
S	Section IGoals for Joining the Wellness Center	. 62
S	Section IIThe Effect of Personal Factors	. 65
S	Section IIThe Effect of Program Factors	. 67
S	Section IIThe Effect of "Other" Factors	. 69
S	Section IIIResults of Enticement Questions	. 70
L	imitations	. 71
M	Methodology Support	. 71
C	Conclusions	. 73
Appendixes		. 74
Bibliography	,	. 91

List of Tables

Table		Page
1.	General Demographic Data	26
2.	Descriptive Data	27
3.	Comparison of Male to Female Responses	30
4.	Reported Success of Subjects' Exercise Goal Achievements	31
5.	Exercise Modalities Participated in by Subjects While Exercising at the Wellness Center	34
6.	Exercise Location and Modalities of Subjects Who Continued to Exercise After Non- renewal of Wellness Center Memberships	36
7.	Subjects' Responses to Exercise Enticement Questions	37
8.	Section IIFrequency Tallies and Percentages for Each Question	40
9.	Analysis of Variance Demonstrating Significant Differences on Questions Concerning Exercise Status	43
10.	Analysis of Variance Demonstrating Significant Differences on Questions Concerning Supervised/Unsupervised Membership Status	44
11.	Analysis of Variance Demonstrating Significant Differences on Questions Concerning Race	46
12.	Analysis of Variance Demonstrating Significant Differences on Questions Concerning Smoking Status	47
13.	Analysis of Variance Demonstrating Significant Differences on Questions Concerning Respondent's Education	48

Table		F	age
14.	Analysis of Variance Demonstrating Significant Differences on Questions Concerning Time of Day Subjects Exercised		49
15.	Analysis of Variance Demonstrating Significant Differences on Questions Concerning with Whom Subjects Usually Exercised		50
16.	Analysis of Variance Demonstrating Significant Differences on Questions Concerning Transportation Mode	•	51
17.	Analysis of Variance Demonstrating Significant Differences on Questions Concerning Membership Types	•	53
18.	Analysis of Variance Demonstrating Significant Differences on Questions Concerning Gender	•	54
19.	Results of Hypotheses Testing		55

List of Appendixes

Appendix				
Α.	Permission Request Letter	75		
В.	Permission Granted Letter	77		
С.	Telephone Survey	79		

viii

CHAPTER 1

Introduction

The health benefits of habitual exercise are broad and include the probable prevention of several leading causes of morbidity and mortality in the United States (Powell, 1988). The spectrum of benefits accruing from regular exercise includes the following: The inverse relationship between level of physical activity and incidence of coronary heart disease (Haskell, 1984; Paffenbarger & Hyde, 1984; Siscovick, LaPorte, & Newman, 1985); evidence that regular vigorous physical activity results in decreased diastolic blood pressure, thus benefiting hypertensive populations (Siscovick et al., 1985); the possibility of increased bone density from some types of physical activity, thus benefiting osteoporosis patients (Aloia, Cohn, Babu, Abesamis, Kalici, & Ellis, 1978; Dalen & Olsson, 1974; Krolner & Taff, 1983); the reduction of blood glucose levels, thereby increasing the number of receptors and increasing the effect of insulin in noninsulin-dependent diabetes (Siscovick et al., 1985); the positive effect of physical activity on weight control (Cooper, 1982); the reduction in symptoms of anxiety and mild to moderate depression and an improved self-concept (Dishman, 1985; Folkins & Sime, 1981; Hughes, 1984; Morgan, 1982; Taylor, Sallis, & Needle, 1985); in

addition to the possible indirect benefits such as the positive effect on smoking prevention and cessation, reduction of alcohol and substance abuse, and an increase in health-producing behaviors (Blair, Jacobs, & Powell, 1985).

Despite all the physiological and psychological benefits resulting from regular exercise, one-half of those beginning or renewing a personal exercise program fail to maintain exercise at the level initially intended. In a supervised exercise program approximately 50% will drop out of the program within six months to a year. In a corporate setting only 20% to 40% of the employees eligible to use the exercise facilities will do so, but only one-third to one-half of this group will exercise on a regular basis at vigorous intensity levels (Dishman, 1985).

The dropout rate in adult fitness and cardiac exercise programs has averaged 45% in a number of investigations between 1968 and 1985 (Franklin, 1988). These studies conducted in a variety of settings have suggested a number of factors that contributed to the high dropout rate. However, there has been much inconsistency in defining the exercise drop out and determining reasons for nonadherence (Franklin, 1988). Also unclear from many investigations is what proportion of those who drop out of supervised exercise programs are physically active elsewhere (Dishman, 1988a).

Another problem stemming from past research is the tendency to apply findings gained from one setting to a

different environment. For example, factors affecting exercise dropout have been extrapolated from research with male state prisoners (Pollock, Gettman, Milesis, Bah, Durstine, & Johnson, 1977), young athletes (Robinson & Carron, 1982), European populations (Boothby, Tungatt, & Townsend, 1981), post-coronary patients (Andrew, Oldridge, Parker, Cunningham, Rechnitzer, Jones, Buck, Kavanaugh, Shephard, Sutton & McDonald, 1981), male employees in a corporate setting (Danielson & Wanzel, 1977), Canadian populations (Canada Fitness Survey, 1983), and those exercising on their own (Massie & Shephard, 1971). variability of findings among these various studies may be due to the environment as well as the varying research designs. This raises the question as to the applicability of findings from one setting to another. It has been suggested that exercise adherence patterns may be improved by using separate models for men and women (Ward & Morgan, 1984). This same concept may also apply in using separate models for various exercise settings.

Statement of the Problem

What psycho-physiological factors influence people not to renew a Wellness Center membership? Identification of these factors will help give direction to fitness directors when planning programs to meet community needs. Also, identifying these factors will add to the understanding of exercise adherence within the body of knowledge of the exercise sciences. The application of these findings should also be of value to those who teach in this field.

Delimitations

This study will attempt to investigate only those 400 individuals who did not renew their membership at the Bluefield Community Wellness Center between August, 1986, and August, 1988.

Questions and Hypotheses to Be Answered

From the three sections of the telephone survey, this study attempted to answer certain questions and hypotheses. The order in which these questions and hypotheses are presented below correspond with the appropriate section of the telephone survey.

Questions to Be Answered

This study attempted to answer the following questions in Section I of the telephone survey:

- 1. What percentage of those involved in the study, while discontinuing their Wellness Center membership, continued to exercise at least three days a week either at home or at another facility?
- 2. What were the primary reasons that influenced subjects to originally join the Wellness Center?
- 3. What effect did "personal factors" have in influencing subjects' decisions for nonrenewal of their Wellness Center memberships? Included in this category are smokers compared to nonsmokers, blue-collar compared to

white-collar occupations, lack of motivation, and failure to meet exercise goals.

- 4. What effect did "program factors" have in influencing subjects' decisions not to renew their Wellness Center memberships? Considered in this category are factors such as the perceived inconvenience of the location, amount of time required to commute to the Wellness Center, the cost of membership, exercising alone, lack of positive feedback or reinforcement from Wellness Center staff, low levels of enjoyment, poor exercise leadership, and lack of provisions for child care.
- 5. What effect did "factors other than personal or program" have in influencing subjects' decisions concerning nonrenewal of the Wellness Center memberships? Factors considered include lack of spousal support, inclement weather, excessive job travel, injury, medical problems, and a job change or move.

Hypotheses to Be Answered

From Section II of the telephone survey, this study tested the following null hypotheses:

- 1. There will be no significant difference as it relates to subject's gender in responding to Section II of the telephone survey.
- 2. There will be no significant difference as it relates to subject's age group in responding to Section II of the telephone survey.

- 3. There will be no significant difference as it relates to the subject's blue- or white-collar work status in responding to Section II of the telephone survey.
- 4. There will be no significant difference as it relates to the subject's educational background in responding to Section II of the telephone survey.
- 5. There will be no significant difference as it relates to subjects who exercised before work, at lunch time, or after work in responding to Section II of the telephone survey.
- 6. There will be no significant difference as it relates to subjects who exercised alone compared to those who exercised as part of a group or with a friend in responding to Section II of the telephone survey.
- 7. There will be no significant difference as it relates to subjects who received a supervised membership compared to those who did not receive a supervised plan in responding to Section II of the telephone survey.
- 8. There will be no significant difference as it relates to subjects with different types of memberships such as single, family, corporate, student or hospital in responding to Section II of the telephone survey.
- 9. There will be no significant difference as it relates to subjects who smoked compared to nonsmokers in responding to Section II of the telephone survey.

- 10. There will be no significant difference as it relates to subjects who were white compared to those who were black in responding to Section II of the telephone survey.
- 11. There will be no significant difference as it relates to subjects who were single compared to those who were married or divorced in responding to Section II of the telephone survey.
- 12. There will be no significant difference as it relates to subjects who continued to exercise three times a week compared to those who did not in responding to Section II of the telephone survey.
- 13. There will be no significant difference as it relates to subjects who utilized various modes of transportation in responding to Section II of the telephone survey.

From Section III of the telephone survey, this study attempted to answer the following question:

1. What possible enhancers or inducements could have been provided that would have caused subjects to maintain their Wellness Center membership? Considered are factors such as cost of membership, a more flexible work schedule, having someone to exercise with, receiving a deduction in insurance premiums, and having someone to help with household chores.

Definitions of Terms

Blue collar--for the purposes of this study, a person who works on their feet actively most of the work day, as opposed to a more sedentary position.

Exercise enticements--factors that if available may in the opinion of former exercisers entice them to renew their memberships at the Wellness Center.

<u>Family membership</u>--membership that entitles the entire family use of facilities at the Wellness Center.

Hospital—the Bluefield Community Hospital. The Bluefield Community Hospital owns and operates the Bluefield Community Wellness Center. Employees of the hospital are given membership privileges at the Wellness Center at a reduced rate.

Member--someone who has paid the appropriate fees to join the Bluefield Community Wellness Center. Various membership plans are available to the general public and hospital employees.

Other factors--factors, other than personal or program, that influenced subjects' decisions to not renew memberships. Included in this category are lack of spousal support, inclement weather, excessive job travel, injury, medical problems, and a job change or move.

<u>Personal factors</u>--factors such as smoking, blue-collar work status, lack of motivation, and failure to meet

exercise goals that influenced decisions to not renew memberships.

Program factors—factors such as the perceived convenience/inconvenience of the exercise location, time required to commute, the cost of membership, exercising alone, lack of positive feedback or reinforcement from staff, low levels of enjoyment, poor exercise leadership, and lack of child care that influenced the decision not to renew membership.

Psycho-physiological factors—a combination of psychological and physiological variables that may have influenced the decision of nonrenewal of the Wellness Center membership.

<u>Single membership</u>—a membership that allows only one individual exercise privileges.

Student membership -- a membership that allows high school and college students exercise privileges at a reduced rate.

Supervised membership--a membership that provides physiological feedback on a regular basis. Among the assessments provided include percentage of body fat, sit and reach flexibility, estimated maximum oxygen consumption from stationary bike test, resting heart rate, exercise and recovery blood pressure, dietary analysis, and a blood lipid profile.

<u>Unsupervised membership</u>—a membership that does not provide the battery of physiological testing that is provided in the supervised membership.

Wellness Center--the Bluefield Community Wellness
Center, operated by the Bluefield Community Hospital. The
Wellness Center is located in downtown Bluefield, West
Virginia, approximately one and one-half miles from the
Bluefield Community Hospital.

White-collar worker--a person who works mostly behind a desk in a sedentary type position as opposed to someone who works on their feet in a more strenuous occupation.

CHAPTER 2

Review of Related Literature

Numerous variables affecting the decision to drop out of an exercise program have been identified by investigators. The variables influencing the decision to withdraw from an exercise program can be classified into three categories. These categories include personal factors, program factors, and factors not related to personal or program factors labeled as "other factors" (Franklin, 1988). Within each of these subdivisions a number of variables have been identified as significant.

Personal Factors

A variety of personal factors have been identified by investigators as commonly occurring among those who decide to drop out of an exercise program. The use of personal factors as entry profiles to predict adherence has been a commonly attempted method yet participant characteristics alone have not yielded predictions that are accurate enough for practical use. However, researchers have found that when several of these factors exist, the likelihood of non-adherence increases (Franklin, 1988). The list of possible personal factors affecting the decision to withdraw from exercise include smoking, inactive leisure time, inactive occupation, blue-collar worker, type A personality,

increased physical strength, extroverted, poor credit rating, overweight and/or overfat, poor self-image, depressed, hypochondriac, anxious, introverted, low ego strength, and low levels of motivation (Franklin, 1988). Several representative studies illustrating the effect of personal factors will be given to highlight their importance.

In one longitudinal study of 751 post-myocardial infarction patients, blue-collar work status and smoking were highly associated with dropout. After two years, the investigation showed a blue-collar worker who smoked and was inactive in leisure pursuits had an 80% likelihood of dropping out. If this subject was also employed in light occupational work, the chance of dropping out increased to 95% (Oldridge, 1979). The predictive use of these findings were limited, however, in that only 22 of the 751 subjects displayed all of these behaviors. Also, the ability to generalize these findings to other samples is not known (Dishman, 1988b).

In a study of sedentary middle-aged men participating in a 28-week course consisting of either a Y.M.C.A. fitness class or an individualized aerobics program, several personal factors were found to be significant. In general, dropouts were characterized as having more excess weight, greater percentages of body fat, smoking, possessing greater levels of strength, and being more extroverted than those

who adhered to the exercise program (Massie & Shephard, 1971).

Danielson and Wanzel (1977) investigated 480 who dropped out from a company-operated fitness center. Physiologically, those who dropped out were heavier, fatter, and stronger in leg extension and hand-grip strength. Psychologically, whose who dropped out were characterized as being more extroverted and lower in motivation to participate.

Motivation is another personal factor that has often been identified by researchers as influencing the decision to drop out of exercise programs. As Franklin (1978) has stated, "The problem appears no longer how to motivate people to take the first step toward an exercise commitment but rather to keep this motivation alive" (p. 16). Dishman and Gettman (1980) define self-motivation as, "A generalized, nonspecific tendency to persist in the absence of extrinsic reinforcement and is thus largely independent of situational influence" (p. 297). In a 20-week study, the above named researchers were able to distinguish 43 adherers and 23 dropouts with a 78.8% accuracy rate by considering percent body fat, body weight, and self-motivation.

Ward and Morgan (1984) used the model developed by
Dishman and Gettman in an attempt to predict adherence at
10, 20, and 32 weeks into an exercise program. The model
was accurate at 88% in predicting the adherers but failed to

predict dropouts, thus accounting for a 25% overall accuracy rate.

While motivation alone has not been statistically significant in predicting exercise dropout, it has been identified as playing an important role in the decision to withdraw from exercise (Dishman, 1988a). For example, the Canada Fitness Survey (1983) found lack of interest and motivation as the second largest obstacle to regular exercise. In this study which gathered information from people who claimed they wanted to participate more in exercise, 27% of males and 37% of females reported being "too lazy" or "lacking energy" as the reason for not exercising. The Fitness Ontario study (1981) which asked respondents for reasons they were not active also found lack of motivation as the second largest obstacle to regular exercise.

Lack of enthusiasm for the exercise program has also been cited as a contributor to dropouts in studies involving post-coronary patients (Andrew & Parker, 1979; Andrew et al., 1981). Thus, there are a number of personal factors that may influence the decision to withdraw from membership exercise programs. When any single individual exhibits a number of these characteristics, the likelihood of adherence to the exercise program is lessened.

Program Factors

Program factors is the second category to be considered when examining reasons for withdrawal from an exercise program. These variables related to characteristics of the exercise environment and how the exerciser perceives and responds to that environment. Program factors include inconvenient time/location of the exercise center, excessive cost, high intensity exercise, lack of exercise variety, exercising alone, lack of positive feedback or reinforcement, inflexible exercise goals, low enjoyment ratings for running programs, poor exercise leadership and poor/lack of child care (Franklin, 1988). Several representative studies illustrating the effect of program factors are given to highlight their importance.

Available research indicates that exercising with someone else or with a group is more preferred and results in greater adherence rates. Hiezelmann and Bagley (1970) found that 90% of the adult male participants in a program preferred to exercise either with a group or with another person. Wanzel (1977) showed in a drop-in program there was a greater tendency for females (62%) than for males (26%) to exercise with a friend or spouse.

The Canada Fitness Survey (1983), in seeking to find possible changes that might encourage activity, found that 25% of the females emphasized having a partner and 20% of the females emphasized pursuing exercise as a family. This

compared to a male response rate of 18% and 15% to the two questions, respectively (Wankel, 1985).

While more females than males have indicated a desire to not exercise alone, Massie and Shephard's (1971) study of middle-aged men showed over a 28-week period a 53% dropout rate for an individualized aerobics program. This compared to only an 18% dropout rate over the same time period for a male group exercise class at the Y.M.C.A. Camaraderie, group identification, commitment and social reinforcement seem to be by-products of group activity for many people (Brawley, 1979).

Within the group exercise setting, the exercise leader plays a crucial role. Oldridge (1977) says the exercise leader is the "pivot on which the success or failure of a program will depend" (p. 86). Variety and enjoyment are two important ingredients to be provided by the exercise leader. While research shows people begin an exercise program largely for health benefits, they continue based on their level of personal enjoyment. Dropouts often indicate poor activity selection and loss of enjoyment as prime reasons for withdrawal from activity programs (Wankel, 1985). This reaffirms the need for activity leaders to provide a variety of enjoyable activities and to avoid regimented calisthenics which often become monotonous and boring. In keeping with these recommendations for activity leaders, the American College of Sports Medicine (1986) has developed a list of

behavioral strategies that a good exercise leader employs. These strategies include suggestions for the leader to:

- 1. Show a sincere interest in the participant.
- 2. Be enthusiastic in instruction and guidance.
- Develop a personal association and relation with each participant and learn their names.
- 4. Consider the various reasons why adults exercise (i.e., health, recreation, weight loss, social, personal appearance) and allow for individual differences.
- 5. Initiate participant follow-up (e.g., written notes or telephone calls) when several unexplained absences occur in succession.
- 6. Participate in the exercise session yourself.
- 7. Honor special days (e.g., birthdays) or exercise accomplishments with extrinsic rewards such as t-shirts, ribbons, or certificates.
- 8. Attend to orthopedic and musculoskeletal problems.
- Counsel participants on proper foot apparel and exercise clothing.
- 10. Motivate participants to make a long-term exercise commitment.

Another important program factor is personal goalsetting established by the exerciser. Dishman (1988b) states that personal goal-setting provides the greatest potential for long-term exercise success. Danielson and Wanzel (1977) found the failure to meet goals, especially the one of weight loss, played an important role in the decision of 480 dropouts from a company-operated fitness center. By six months, 92% of those who did not obtain their goals had dropped out compared to 40% who did obtain their goals. This study also showed a significant relationship between those who wanted to lose weight and those who dropped out in two months. Apparently, those desirous of weight loss were unwilling to wait longer than two months to accomplish their objective. This highlights the importance of an exercise program providing education and periodic testing. Franklin (1988) mentions physiological testing as an important motivational component to reduce the dropout However, he quotes no study to support the contention that those who receive periodic testing drop out at a rate less than those who do not receive these tests.

One's motivational level may also affect his or her perception of other program features. Reasons most frequently given for withdrawal from a company-sponsored exercise program before six months included distance of facility from the place of work, the disruption of one's daily schedule, and crowding of the facility during training (Danielson & Wanzel, 1977).

Andrew et al.'s (1981) research revealed subjects dropped out because it was hard to attend on time, the exercise center was inconveniently located and parking

problems existed. Program perceptions of dropouts in a similar study were: it was difficult to attend exercise sessions on time; exercise interfered with their work; the physical facilities were lacking; and the exercise center was inconveniently located (Andrew & Parker, 1979). When compared to exercise adherers, these were the categories of significant difference between adherers and dropouts.

One last significant area relating to program factors influencing dropout is intensity of the workout session. Numerous studies have reported dropouts complaining of high levels of fatigue following a workout as well as a relatively high incidence of injury. A 54% injury rate was incurred by state male prisoners involved in a jogging program consisting of 45 minutes, 5 days a week (Pollock, et al., 1977). This was especially notable considering the population was relatively young and lower than average in body weight and fat. Wankel (1985), in discussing the effect of high intensity exercise on injury rates and the resultant high level of exercise dropout states, "Although a definite level of intensity is required to have an optimal training effect, too intense exercise is associated with increased incidence of injury and poor adherence. Exercise which is optimal from a physiological training perspective is not likely the optimal level for adherence" (p. 275).

Based on these considerations, Franklin (1988) has suggested that a realistic program for previously sedentary

adults be 20 to 30 minutes, 3 days per week, at an intensity level 50% to 70% maximum as their exercise prescription. By following these guidelines, it is hoped that injury and dropout rates can be lowered.

Other Factors

Factors other than personal or program represent the last area to be considered when examining influences on the decision to withdraw from an exercise program. Included in this category are factors such as lack of spousal support, inclement weather, excessive job travel, injury, medical problems, and job changes/moving (Franklin, 1988). Of these factors mentioned, lack of spousal support has been one of the most frequently cited issues in the literature.

In an 18-month exercise program Heinzelmann and Bagley (1970) found a direct relationship between a wife's attitude toward the program and her husband's adherence. Husbands whose spouses had a positive attitude toward the program demonstrated good to excellent adherence patterns in 80% of the cases. When the wife was neutral or negative about the exercise program, only 40% of the husbands demonstrated good to excellent adherence.

Lack of spousal support has also been mentioned as having an important adherence influence by Andrew and Parker (1979) and Andrew et al. (1981). Wankel (1985), in commenting on the importance of spousal and social support in general, recommends that spouses, families, and

encouraging friends be included in a structured social support program, thereby providing the much-needed variable of social support.

Injury and medical problems are two other factors often mentioned as influencing the exercise dropout decision.

While medical problems may be independent of the exercise program, injuries are many times a result of the exercise program. This is why in designing a program that high intensity exercise prescriptions not be made for the beginning or reconditioned individual. As was discussed in this review previously, exercise intensity can play an important role in the dropout decision.

It is evident from this review of literature that a number of factors significantly influence the decision to adhere or drop out of an exercise program. Discovering factors affecting dropout at each individual exercise center can play an important role in the design and development of that program.

CHAPTER 3

Methods and Procedures

During February and March of 1988, the investigator contacted former members of the Bluefield Community Wellness Center in an attempt to determine their reasons for discontinuing their membership.

Subjects

Four hundred former members of the Bluefield Community Wellness Center, Bluefield, West Virginia, served as the potential subjects for this study. Subjects' ages ranged from 10 to 77. This study included only subjects who failed to renew their Wellness Center memberships between August, 1986, and August, 1988. The investigator was successful in contacting 319 of a possible 400 for a 79.75 percent return.

Time Involved

Data collection by telephone interview began in early February, 1989, and concluded in late March, 1989.

Approximately 80 hours were spent in collecting data via telephone interviews.

Instrument Development

After a thorough review of literature related to exercise adherence, the investigator developed a questionnaire that was then presented to Dr. A. H. Solomon, Dissertation Director and Professor of Sport Psychology,

Middle Tennessee State University; Dr. Powell McClellan,
Dissertation Committee Member, Professor of Exercise
Physiology and Director of the Human Performance Laboratory,
Middle Tennessee State University; Ms. Donna Hankla, M.S.,
Exercise Physiologist, Bluefield Community Wellness Center;
and Dr. Ron Bone, Social Psychologist, Ph.D., Professor of
Psychology, Bluefield College, for their review and
modifications.

A pilot study using the modified instrument (see Appendix C) was then conducted to ensure clarity of purpose and served to further validate the instrument for the main study.

CHAPTER 4

Analyses of Data

In the preceding chapter the methods and procedures used to collect data for this investigation were detailed. This chapter will present the statistical results of this investigation. Data collected from Section I of the telephone survey will be presented first with frequency tallies, means, and percentages computed for items appropriate for such analyses. Section II data will be presented next. In this section each item was analyzed using Analysis of Variance. Where the Analysis of Variance showed a significant difference at the .05 level of confidence for variables containing more than two subgroups, Duncan's Range Test was administered to determine where the significant differences existed.

The last data presented is from Section III. Frequency tallies and percentages were calculated for each question in this section. Following analyses of Sections I, II, and III, inferences were drawn concerning the reasons for subjects' participation in and dropping out of the program at Bluefield Community Wellness Center.

Of the 400 available former members in this study's population, 319 were successfully contacted via telephone for a 79.75 percent response. Of the group contacted, the

mean age was 36.5 years with a standard deviation of 12.26 years.

Of those contacted via telephone, 118 (37%) were male and 201 (63%) were female. Additional demographic data pertaining to a respondent's age and gender is provided in Table 1 from Section I.

Section I--Descriptive Data of Subjects

Table 2 provides descriptive data for the subjects' responses to the questionnaire. Frequency tallies and percentages were calculated for each category. Examination of data reveals that the majority of respondents were married (67.7%), white (93.1%) subjects who exercised in the evening or after work hours. Results of this section also indicated that almost as many subjects continued (49.7%) as discontinued (50.3%) exercising three days a week upon non-renewal of the Wellness Center membership.

Table 2 also provides a statistical breakdown for the number of miles driven showing that more than 70% of the participants traveled 19 miles or less to arrive at the Wellness Center. In relation to modes of transportation utilized, 84.2% used their personal vehicles the vast majority of the time. Additionally, Table 2 indicates the single membership (41.1%) was the most popular type of membership, with other membership information detailed in the table.

Table 1
General Demographic Data*

	М	ale	Fem	nale	To	tal
Age	No.	%	No.	%	No.	%
0-10	0	0	2	1.0	2	0.6
11-19	0	7.6	9	4.6	18	5.7
20-29	30	25.4	44	22.3	74	23.5
30-39	44	37.3	73	37.0	117	37.1
40-49	22	18.6	36	18.3	58	18.4
50-59	11	9.3	22	11.2	33	10.5
60 & over	2	1.7	11	5.6	13	4.0
Total	118	37.5	197	62.5	315	100.0

^{*}All subjects did not answer all questions.

Table 2
Descriptive Data*

Variable	Male	Female	No.	%
Race				
White Black	102 14	193 8	295 22	93.1 6.9
Total	116	201	317	100.0
Marital Status				
Single Married Divorced	41 67 10	47 145 8	88 212 18	27.7 66.7 5.7
Total	118	200	318	100.1
Time of Day Subjects Exercised				
Morning/Before Work Afternoon/During	40	27	67	21.8
Work Evening/After Work	9 69	14 148	23 217	7.5 70.7
Total	118	189	307	100.0
Subjects Continuing to Exercise Three Days a Week				
Continued Discontinued	67 45	88 112	155 157	49.7 50.3
Total	112	200	312	100.0

Table 2 (continued)

Variable	Male	Female	No.	%
Miles Traveled to Reach Wellness Center				
0-9 10-19 20-29 30-39 40-49 50-59	44 46 15 4 2 2	70 82 35 10 3	114 128 50 14 5	36.3 40.8 15.9 4.5 1.6
Total	113	201	314	100.1
Type of Membership			····	
Single Family Corporate Student Hospital Total	56 24 15 2 21 118	75 54 6 0 66 201	131 78 21 2 87 319	41.1 24.5 6.6 0.6 27.3
Usual Mode of Transportation to Wellness Center	, , , , , , , , , , , , , , , , , , , 			
Drove Personal Vehicle Walked/Jogged Rode Bicycle Rode with Friend/ Carpooled	94 17 5	173 11 14	267 28 0	84.2 8.8 0.0 6.0
Took a Bus	1	2	3	0.9
Total	117	200	317	99.9

^{*}All subjects did not answer all questions.

Comparison of Male to Female Respondents

Table 3 provides a comparison of male and female respondents. Included in the comparisons are the variables concerning supervised and unsupervised membership status, blue- and white-collar occupation, smoking status, and with whom subjects usually exercised. Frequency tallies and percentages were calculated for each category with percentages rounded to the nearest tenth. Among the more noticeable differences between the two groups was the fact that 46% of males were blue-collar status compared to only 24% of females. Also, 48% of females usually attended the Wellness Center with someone compared to 24% of the males. Only 18.4% of respondents smoked while exercising at the Wellness Center. A slightly higher percentage of males (19.7%) smoked than did females (17.7%).

Reported Success of Exercise Goals

Table 4 provides a breakdown in frequency distributions and percentages for the exercise goals reported by subjects. Also indicated are the self-reported success rates of meeting personal goals as perceived by the subjects. If considered as a group, health reasons were the most frequently cited exercise goals of respondents. Among the physical health goals most frequently mentioned were the desire to lose weight (41.7%), improve fitness (60.5%), and firm up (22.6%).

Table 3
Comparison of Male to Female Responses*

	Ma	ale	Fe	emale	To	tal
Variable	No.	% 	No.	%	No.	%
Supervised Membership	44	41.1	97	51.6	141	47.8
Unsupervised Membership	63	58.9	91	48.4	154	52.2
Blue-collar Work Status	49	46.2	41	24.3	90	32.7
White-collar Work Status	57	53.8	128	75.7	185	67.3
Smoker	23	19.7	35	17.7	58	18.4
Nonsmoker	94	80.3	163	82.3	257	81.6
Exercised Alone	72	64.3	88	45.6	160	52.5
Exercised with Someone	39	24.8	93	48.2	132	43.3
Exercised in a Group	1	0.9	12	6.2	13	4.3

^{*}All subjects did not answer all questions.

Table 4

Reported Success of Subjects' Exercise Goal Achievements*+

	Hig Succe	ghly essful		ewhat essful	No Succe	ot essful	To	otals
Exercise Goal	No.	%	No.	%	No.	%	No.	%
Follow Physician's Advice	12	60.0	7	35.0	1	5.0	20	6.2
Special Reasons Lose Weight	85	44.7	27	14.2	78	41.1	190	59.6
Firm/Tone Up	21	29.2	35	48.6	16	22.2	72	22.6
Lower Blood Pressure	1	3.2	20	64.5	10	32.3	31	9.7
Lower Cholesterol	1	4.0	18	72.0	6	24.0	25	7.8
Improve Diabetic Conditions	1	33.3	1	33.3	1	33.3	3	0.9
Recover from Heart Attack	2	66.7	1	33.3			3	0.9

Table 4 (continued)

		ghly essful		ewhat essful		ot essful	Te	otals
Exercise Goal	No.	%	No.	%	No.	%	No.	%
Reduce Stress/ Anxiety	9	29.0	20	64.5	2	64.5	31	9.7
Improve Fitness and Stamina	54	27.8	108	56.0	31	16.1	193	60.5
Prevent Heart Attack	5	71.4	2	28.6			7	2.2
Low Back Problems	8	66.7	4	33.3			12	3.8
Something to do with Free Time	36	100.0					36	11.3

^{*}All subjects did not answer all questions. +Subjects reported as many goals as were applicable.

Social reasons (59.6%) were also very important to the exercisers as a reason for beginning exercise at the Wellness Center. However, for both the social reasons and health reasons a large percentage of respondents reported being only somewhat or not successful in meeting their exercise goals. Subjects were allowed to indicate as many goals as were applicable to their situation.

Exercise Modalities Participated In

Table 5 provides a summary of varying exercise modalities utilized by subjects while exercising at the Wellness Center. Subjects reported the activities they participated in along with the average number of days a week and the average number of minutes they participated in each activity.

Analysis of the data through frequency distribution and percentages revealed that use of the treadmill (46.1%), Nautilus equipment (39.5%), and aerobic dance (32.3%) were the activities most commonly chosen by subjects. Data analysis also showed the average number of days a week subjects exercised ranged from two (stair master) to five (jogging outside) days a week. As for the average number of minutes, reports ranged from a low of nine (nordic track) to a high of 64 (free weights).

Table 5 Exercise Modalities Participated in by Subjects While Exercising at the Wellness Center*+

Exercise	No.	%	Average Days A Week	Average No. of Minutes
Aerobic Dance	103	32.3	3.0	66.0
Lifecycle	49	15.4	2.3	25.8
Ayre Dyne Bike	53	16.6	3.0	16.9
Nordic Track	2	0.6	3.5	9.0
Rowing Machine	7	2.2	2.7	12.8
Arm Ergometer	6	1.9	2.7	10.8
Stair Master	16	5.0	2.2	10.6
Walking Outside	5	1.6	3.6	49.0
Jogging Outside	1	0.3	5.0	60.0
Treadmil1	147	46.1	2.9	22.3
Free Weights	39	12.2	4.1	64.4
Nautilus	126	39.5	3.0	33.6

^{*}All subjects did not answer all questions. +Subjects indicated more than one choice.

Location and Modality of Subjects Continuing to Exercise

Data analysis in Table 6 revealed that 155 subjects (49%) reported they continued to exercise after quitting the Wellness Center. Table 6 also provides a listing of both the location and modality of exercise participated in by subjects. Responses are provided in frequency distributions and percentages.

Examination of the data revealed that the majority of subjects who continued to exercise did so at home (52.9%). The most frequently reported modalities of exercise were those that are aerobic in nature such as walking, jogging, and bicycling. Weight lifting, sports, and swimming at other exercise centers were other activities most reported by respondents.

Section III--Response to Exercise Enticement Questions

In Section III of the telephone questionnaire interviewees were asked to consider whether the availability of various enticements would have persuaded them to continue their Wellness Center membership. Table 7 provides a breakdown of yes, no, and non-applicable responses. Frequency distributions and percentages rounded to the nearest tenth are provided for each question.

Analysis of the data revealed being able to exercise during working hours (51%), working less hours (59.7%), and having the employer pay the membership costs (51%) were the

Table 6

Exercise Location and Modalities of Subjects Who Continued to Exercise After Non-renewal of Wellness Center Memberships

Location	Walk	Run/Jog	Aerobic Dance	Weight Lifting	Swim	Sports	Biking	%
Home	36	5	11	12		10	6	52.9
Community Center			5	2	11	10	1	18.7
Rejoined Wellness Center			7	11				11.6
Gold's Gym				13				8.4
Fitness Plus				4	1			3.2
Church			4					2.6
School				2		2		2.6
Grand Total	36	5	31	41	11	22		100.0

Table 7
Subjects' Responses to Exercise
Enticement Questions

Question	Y	es]	No	N	/ A	
No.	No.	%	No.	%	No.	%	Total
1 (Employer	150 paid co		107	36.4	37	12.6	294
2 (Exercise	189 during		67	22.9	37	12.6	293
3 (Exercise	56 with sp		152	51.9	85	29.0	293
4 (Help with	91 chores		178	60.8	24	8.2	293
5 (Insurance	77 e reduct		193	65.9	23	7.8	293
6 (Exercise	138 with so		154	52.6	1	0.3	293
7 (Work less	175 hours)		112	38.2	6	2.0	293
8 (Exercise	55 was fun		237	81.2	0	0.0	292
9 (Personabl	29 e instr		263	90.1	0	0.0	292
10 (Doctor pr		40.4 d)	159	54.5	15	5.1	292

most frequently cited enticements by subjects. Having a friend or group to exercise with (47%) were also often mentioned enticements that subjects felt would have encouraged their continued Wellness Center membership.

Section II--(Analysis of Variance)

In Section II of the telephone interview, subjects were asked to respond to a series of questions. The responses available for each question had five possible choices ranging from strongly agree to strongly disagree. After the collection of data, each of the 20 questions were subjected to an analysis of variance comparing the responses of 12 different groups for significant differences. Where significant differences occurred in the questions containing more than two variables, a Duncan's Range Test was applied to the data to reveal the mean score for each group and where the significant differences occurred. Also, an Alpha Cronbach reliability coefficient was administered to the Likert Scale. Results of the Alpha coefficient revealed a score of .65 for internal validity of responses to the Likert Scale.

The groups that were compared for significant differences using Analysis of Variance were: (1) males and females, (2) supervised and unsupervised memberships, (3) whites and blacks, (4) smokers and nonsmokers, (5) those of varying educational background, (6) various age groups, (7) various marital status, (8) varying occupational status, (9)

time subjects exercised, (10) with whom subjects exercised,

- (11) those utilizing various modes of transportation, and
- (12) various membership types.

Table 8 provides an analysis of Section II of the questionnaire in terms of frequency tallies and percentages for each response for all subgroups.

Tables 9 through 19 provide information about those subgroups where a significant difference occurred in the analysis of variance. A total of 10 groups with only one question to as many as 9 questions showing a significant difference appear in Tables 9 through 19. The subgroups displaying the fewest significant differences was the variable considering the time of day subjects exercised. The supervised compared to unsupervised membership plan produced the most significant differences.

Table 8

Section II--Frequency Tallies and Percentages for Each Question*

Question		ongly sagree		agree		Agree	Ag	ongly ree	Total
No.	4	% 	3	%	2	% 	1	%	
l (Failed to		14.8 goals)	218	68.0	40	12.6	8	2.5	313
2 (Lacked mot		15.1 on)	118	37.1	97	30.5	55	17.3	318
3 (Fatigue in		29.6 red)	191	60.1	21	6.6	4	1.3	308
4 (Inconvenie		17.6 cation)	132	41.5	72	22.6	57	17.9	317
5 (Commute ti	63 ime)	19.9	154	48.6	61	19.3	37	19.2	315
6 (Cost of me		14.8 nip)	143	45.0	77	24.2	48	15.1	315
7 (Boredom)	56	17.6	201	63.2	43	13.5	13	4.1	313
8 (Did not en	72 njoy)	22.9	180	57.3	42	13.4	15	4.8	309

Table 8 (continued)

Question		rongly sagree	Dis	agree		Agree		ongly ree	Total
No.	4	%	3%	%	2		1	%	
9 (Disliked		12.9 c class)	54	17.0	23	7.3	8	2.5	126
10 (Displease	63 d with	19.9 equipment)	147	46.4	52	16.4	45	14.2	307
ll (Displease	122 d with	38.5 staff)	159	50.2	22	6.9	10	3.2	313
12 (No child	9 care)	2.9	14	4.4	6	1.9	20	6.3	49
13 (Displease		2.8 child care	17	5.4	6	1.9	15	4.7	47
		24.6 locker roc	219 m)	69.1	9	2.8	1	0.3	307
15 (No spousa		27.1 ort)	116	36.6	16	5.1	6	1.9	224
16 (Difficult	71 drivin	22.4 ng conditio	197 ns)	62.2	32	10.1	13	4.1	313

Table 8 (continued)

Question	Dis	Strongly Disagree		agree	2	Agree %		ongly ree	Total
No.	4 	%	3	%	Z	%	<u>L</u>	%	
17 (Injury/me	117 dical p	37.0 problems)	156	49.4	15	4.8	25	7.9	313
18 (Work resp	48 onsibil	15.1 ities)	133	42.0	57	18.0	56	17.7	294
19 (Home resp	48 onsibil	15.1 ities)	161	50.8	58	18.3	48	15.1	315
20 (Civic res	79 ponsibi	25.0 lities)	201	63.6	20	6.3	12	3.8	312

^{*}Undecided and non-applicable responses were not included in the data treatment.

Table 9

Analysis of Variance Demonstrating Significant Differences on Questions Concerning Exercise Status

Question No.	F Ratio	Prob > F	N	Exercise Status	Mean*
15 (No spousal	4.32 support)	0.0145	157 155	Did not continue Did continue	3.35 2.67
16 (Difficult d	8.05 driving conditions	0.0004	157 155	Did not continue Did continue	3.08 2.25

^{*}Mean values derived from Likert Scale ranked as follows: strongly disagree, 4; disagree, 3; agree, 2; strongly agree, 1.

Table 10

Analysis of Variance Demonstrating Significant Differences on Questions Concerning Supervised/Unsupervised Membership Status

Question No.	F Ratio	Prob > F	N	Membership Status	Mean*
1	5.05	0.0246	137	Supervised	2.89
(Failed to me	et goals)		153	Unsupervised	3.05
2	4.85	0.0276	141	Supervised	2.39
(Lacked motiv	ation)		154	Unsupervised	2.63
7 (Boredom)	12.44	0.0004	141 154	Supervised Unsupervised	2.83 3.10
8	6.06	0.0138	139	Supervised	2.91
(Did not enjoy	y)		151	Unsupervised	3.12
9	4.57	0.0346	141	Supervised	2.83
(Disliked aer	obic class)		154	Unsupervised	3.16
14	7.99	0.0047	134	Supervised	3.13
(Displeased w	ith locker room)		152	Unsupervised	3.30
16 (Difficult dr	6.17 iving conditions)	0.0130	140 150	Supervised Unsupervised	2.94 3.15

Table 10 (continued)

Question No.	F Ratio	Prob > F	N	Membership Status	Mean*
19	5.73	0.0166	140	Supervised	2.56
(Home respon	nsibilities)		153	Unsupervised	2.81
20	12.11	0.0005	140	Supervised	2.97
(Civic respo	onsibilities)		151	Unsupervised	3.25

^{*}Mean values derived from Likert Scale ranked as follows: strongly disagree, 4; disagree, 3; agree, 2; strongly agree, 1.

Table 11

Analysis of Variance Demonstrating Significant Differences on Questions Concerning Race

Question No.	F Ratio	Prob > F	N	Race	Mean*
2	7.61	0.0058	122	White	2.46
(Lacked motiv	ration)		7	Black	3.05
9	4.97	0.0275	122	White	2.98
(Disliked aer	obic class)		7	Black	3.71
12	4.46	0.0401	42	White	2.15
(No child car	re)		5	Black	3.17

^{*}Mean values derived from Likert Scale ranked as follows: strongly disagree, 4; disagree, 3; agree, 2; strongly agree, 1.

Table 12

Analysis of Variance Demonstrating Significant Differences on Questions Concerning Smoking Status

Question No.	F Ratio	Prob > F	N	Smoking Status	Mean*
7 (Boredom)	5.86	0.0155	58 256	Smoker Nonsmoker	2.76 3.00
8 (Did not enjoy)	4.59	0.0322	56 252	Smoker Nonsmoker	2.80 3.04
12 (No child care)	4.46	0.0401	6 43	Smoker Nonsmoker	3.17 2.12
13 (Displeased with	6.71 child care)	0.0129	5 42	Smoker Nonsmoker	3.60 2.29

^{*}Mean values derived from Likert Scale ranked as follows: strongly disagree, 4; disagree, 3; agree, 2; strongly agree, 1.

Table 13

Analysis of Variance Demonstrating Significant Differences on Questions Concerning Respondent's Education

Question No.	F Ratio	Prob > F	Years of School	N	Mean*	Duncan's Range Test Results
7 (Boredom)	2.58	0.0540	0-11 (<u>></u> 9)	12	2.75	Significance between 18+ and 12-15 group
			12-15 (<u>></u> 12)	191	3.02	
			16-17 (<u>></u> 16)	95	2.92	
			18+ (<u>></u> 18)	18	2.61	
9 (Disliked a	2.69 erobic class)	0.0492	0-11 (<u>></u> 9)	5	3.40	Significance betweer 18+ and 16-17 group
			12-15 (<u>></u> 12)	73	2.92	Significance betweer 18+ and 0-11 group
			16-17 (<u>></u> 16)	44	3.23	
			18+ (> 18)	7	2.42	

*Mean values derived from Likert Scale ranked as follows: strongly disagree, 4; disagree, 3; agree, 2; strongly agree, 1.

Table 14

Analysis of Variance Demonstrating Significant Differences on Questions Concerning Time of Day Subjects Exercised

Question No.	F Ratio	Prob > F	Exercise Time	N	Mean*	Duncan's Range Test Results
4 (Inconvenient	3.34 location)	0.0198	Before Work/ Morning	67	2.58	Significant difference between
			During Work/ Afternoon	20	2.52	variable group and after-work group
			After Work/ Evening	216	3.20	
			Time Varies	16	2.00	

^{*}Mean values derived from Likert Scale ranked as follows: strongly disagree, 4; disagree, 3; agree, 2; strongly agree, 1.

Table 15

Analysis of Variance Demonstrating Significant Differences on Questions Concerning with Whom Subjects Usually Exercised

Question No.	F Ratio	Prob > F	Exercise Partner	N	Mean*	Duncan's Range Test Results
10 (Displease equipment)		0.0503	Self Friend Group	155 126 12	2.66 2.76 3.33	Significant difference between exercising alone and with a group
15 (No spousa	4.32 11 support)	0.0145	Self Friend Group	107 101 9	3.21 3.35 2.67	Significant difference between exercising alone and with a group
16 (Difficult conditions		0.0004	Self Friend Group	157 131 12	3.08 3.04 2.25	Significant difference between exercising alone and with a group

*Mean values derived from Likert Scale ranked as follows: strongly disagree, 4; disagree, 3; agree, 2; strongly agree, 1.

Table 16

Analysis of Variance Demonstrating Significant Differences on Questions Concerning Transportation Mode

Question No.	F Ratio	Prob > F	Transportation	N	Mean*	Duncan's Range Test Results
4 (Inconveni	9.49 ient locatio	0.0000 n)	Drove Walked/jogged Carpooled Bus/taxi	266 28 19 3	2.48 3.46 2.79 2.33	Significant difference between walked/jogged and bus/taxi groups
5 (Commute t	10.93 cime)	0.0000	Drove Walked/jogged Carpooled Bus/taxi	266 28 18 3	2.66 3.61 3.06 3.00	Significant difference between walked/jogged and bus/taxi groups
12 (No child	4.76 care)	0.0132	Drove Walked/jogged Carpooled Bus/taxi	41 4 0 4	2.17 3.75 1.50 1.54	Significant difference between walked/jogged and bus/taxi groups
13 (Displease care)	4.72 ed with chil	0.0139 d	Drove Walked/jogged Carpooled Bus/taxi	39 4 0 4	2.38 3.75 1.50 1.54	Significant difference between walked/jogged and bus/taxi groups

Table 16 (continued)

Question No.	F Ratio	Prob > F	Transportation	N	Mean*	Duncan's Range Test Results
20 (Civic res	3.59 ponsibiliti	0.0141 es)	Drove Walked/jogged Carpooled Bus/taxi	265 28 17 2	3.11 3.04 3.47 2.00	Significant difference between walked/jogged and bus/taxi group

^{*}Mean values derived from Likert Scale ranked as follows: strongly disagree, 4; disagree, 3; agree, 2; strongly agree, 1.

Table 17

Analysis of Variance Demonstrating Significant Differences on Questions Concerning Membership Types

Question No.	F Ratio	Prob > F	Membership Type	N	Mean*	Duncan's Range Test Results
l (Failed to	2.95 meet goals)	0.0203	Single Family Corporate Student Hospital	131 78 21 2 87	3.00 3.00 2.75 4.00 2.72	Significant difference between single and hospital membership
2 (Lacked mot	2.49 tivation)	0.0431	Single Family Corporate Student Hospital	131 78 21 2 87	2.54 2.54 2.48 4.00 2.91	Significant difference between single and hospital membership
8 (Did not er	2.73 njoy)	0.0291	Single Family Corporate Student Hospital	131 78 21 2 87	3.07 3.03 2.72 2.50 3.50	Significant difference between single and hospital membership

^{*}Mean values derived from Likert Scale ranked as follows: strongly disagree, 4; disagree, 3; agree, 2; strongly agree, 1.

Table 18

Analysis of Variance Demonstrating Significant Differences on Questions Concerning Gender

Question No.	F Ratio	Prob > F	Gender	N	Mean*
2 (Lacked mot	8.75	0.0008	Male Female	118 195	2.73 2.37
12	4.74	0.0202	Male	14	2.86
(No child o	care)		Female	35	2.00
16	11.86 driving condition	0.0024	Male	118	3.19
(Difficult		ns)	Female	195	2.95
19	17.81	0.0001	Male	118	2.92
(Home respo	onsibilities)		Female	198	2.51

^{*}Mean values derived from Likert Scale ranked as follows: strongly disagree, 4; disagree, 3; agree, 2; strongly agree, 1.

Table 19
Results of Hypotheses Testing

There will be no significant difference as it relates to subject's in responding to Section II of the Telephone Survey		Questions for which Hypothesis Accepted at .05 Level	Questions for which Hypothesis Rejected at .05 Level
1.	Gender	1, 3-11, 13-15, 17, 18, 20	<pre>2 (lacked motivation) 12 (child care not available) 16 (weather/driving conditions) 19 (responsibility at home)</pre>
2.	Age Group	1-20	
3.	Blue Collar/White Collar	1-20	
4.	Educational Background		7 (boredom)
5.	During or After Work	1-3, 5-20	<pre>4 (inconvenient loca- tion/parking problems)</pre>
6.	Exercise Alone, with a Friend, or with a Group	1-9, 11-14, 17-20	10 (displeased with equipment) 15 (spouse not supportive 16 (weather/driving conditions)

Table 19 (continued)

dif:	re will be no significant ference as it relates to ject's in responding Section II of the Telephone vey	Questions for which Hypothesis Accepted at .05 Level	Questions for which Hypothesis Rejected at .05 Level 1 (failed to meet goals) 2 (lacked motivation) 7 (boredom) 8 (did not enjoy exercise) 9 (disliked aerobic class) 14 (displeased with locker room) 16 (weather/driving conditions) 19 (responsibility at home) 20 (civic responsi- bility)
7.	Supervised/Unsupervised Membership Options	3-6, 10-13, 15, 17, 18	
8.	Membership TypeSingle, Family, Corporate, Student, Hospital	3-7, 9-20	<pre>1 (failed to meet goals) 2 (lacked motivation) 8 (did not enjoy exercise)</pre>

Table 19 (continued)

There will be no significant difference as it relates to subject's in responding to Section II of the Telephone Survey		Questions for which Hypothesis Accepted at .05 Level	Questions for which Hypothesis Rejected at .05 Level
9.	Smoker/Nonsmoker		7 (boredom) 8 (did not enjoy exercise) 12 (child care not available) 13 (displeased with child care)
10.	Race	1, 3-8, 10, 11, 13-20	<pre>2 (lacked motivation) 9 (disliked aerobic class) 12 (child care not available)</pre>
11.	Marital status	1-20	
12.	Continued/Discontinued Exercise	1-14, 17-20	<pre>15 (spouse not supportive) 16 (weather/driving conditions)</pre>

Table 19 (continued)

There will be no significant difference as it relates to subject's in responding to Section II of the Telephone Survey	Questions for which Hypothesis Accepted at .05 Level	Questions for which Hypothesis Rejected at .05 Level
13. Transportation		4 (inconvenient location/parking) 5 (commuting time) 12 (child care not available) 13 (displeased with child care) 20 (civic responsibility)

CHAPTER 5

Summary and Discussion

The purpose of this study was to determine what physical and psychological factors influence the decision of people not to renew a Wellness Center membership. Four hundred former members of the Bluefield Community Wellness Center served as potential subjects for this study.

This investigation began in the summer of 1988, and data collection was completed in March of 1989. The testing instrument used for gathering data was a questionnaire developed through a review of the literature focusing on the exercise dropout. A pilot study, in addition to a review panel's recommendations, served to help validate the questionnaire. The questionnaire was administered via telephone interview to 319 of the 400 former members. This represented a 79.75% response rate.

As a result of this study, the author found several areas to be significant in relation to the objectives of this investigation. The following is a summary and discussion of those findings with an emphasis on implications concerning future research ventures and applications of the findings to those individuals with an interest in exercise adherence. The following discussion will summarize the findings from Sections I, II, and III of the survey with

references to tables presented in the previous chapter that summarized the study's findings.

Section I--Discussion of Findings

Available demographic data from Table 1 revealed the 30-39 age group comprised the largest number of respondents with 117 (37.1%) of all subjects falling into this category. The 20-29 age group was next with 74 (23.5%), followed by the 40-49 group with 59 (18.4%), and the 50-59 making up the fourth largest group with 33 (10.5%). The other categories are presented in Table 1 along with the totals for males reporting 118 (37.5%) and females (62.5%). Additional comparisons of male and female respondents are provided in Tables 1, 2, and 3.

Statistical analysis from Table 3 revealed 49.7% or 155 of 312 respondents to this question continued to exercise three days a week for 15 minutes or more. This compared with 157 or 50.3% who indicated they did not continue to exercise at this rate. Of those who indicated they continued to exercise, 53% exercised in or around their homes doing some type of aerobic exercise. For a more thorough analysis of this group, refer to Table 6. For the 73 respondents who chose another fitness facility in which to exercise, weight lifting, racquetball, and swimming were engaged in most often. The Wellness Center studied does not provide racquetball or swimming facilities; thus, discontinuing membership for the availability of these

activities played a role in certain respondents' decisions to discontinue their memberships. In the open-ended section of the questionnaire, 30 respondents listed either the lack of racquetball or swimming facilities as reasons for non-renewal of memberships. The desire for swimming privileges was most often indicated by parents who saw the availability of a swimming pool as an exercise activity that could be participated in by the entire family.

The desire for more children's activities was mentioned by 20 of the 29 respondents who joined a new facility that provided a swimming pool. One common theme that characterized this group's feelings was made by a mother of three who said, "I personally loved the Wellness Center-there just wasn't anything for my kids."

The need to provide more in the way of child care also surfaced in the questions pertaining to this area in Section II of the survey. To question 12 of Section II, "I did not renew my membership because child care was not available," 26 out of the 49 respondents to which this question applied either agreed or strongly agreed. To question 11 of Section II, "I did not renew my membership because I was displeased with the child care that was provided," 21 of the 47 respondents to which this question applied agreed or strongly agreed. The most often made suggestions for improving child care included: having the same workers on a daily basis so children might become more

at ease when left by the parent, increasing the size of the area in which children are kept, and reducing the cost for the service.

From this section of the study, several areas for further investigation arose. One is the fact that almost one out of every two respondents who did not renew their Wellness Center membership did continue to exercise. In reviewing the literature on adherence, an exercise dropout is usually defined as someone who drops out of the particular program under investigation. Unanswered is the question of whether the individual continues to exercise elsewhere. This study highlights the fact that many are not exercise dropouts, but rather program dropouts. This reinforces the need suggested by Martin and Dubbert (1982) to reexamine the definition of adherence, and to perhaps more carefully qualify such a definition.

A second area suggestive of future research is the impact of child care and children's programs on the dropout or adherence rate for parents. From this investigation the need for a program appealing to the entire family was highlighted. This ingredient is one, however, that has gone unmentioned in the literature describing the effect of program factors on adherence.

Section I--Goals for Joining the Wellness Center

As indicated in Table 4, this investigation revealed that health-related goals were the most frequently cited

reasons for joining the Wellness Center. From this group, the desire to lose weight, improve fitness, and firm up were the most frequently indicated reasons given by subjects for initially purchasing a Wellness Center membership. This finding is in agreement with research by Heinzelmann and Bagley (1970), Danielson and Wanzel (1977), and the Canada Fitness Survey (1983).

After indicating their goals or reasons for joining the Wellness Center, subjects were asked if they felt highly successful, somewhat successful, or not successful in achieving their stated goals. For those who indicated weight loss as a goal, Table 4 revealed that 19% felt highly successful, 47% somewhat successful, and 35% not successful in achieving their weight loss goals. This is in agreement with research by Danielson and Wanzel (1977) that showed people who desire to lose weight are not willing to wait long to accomplish their goals. Thus, a close relationship between the exercise objective of weight loss and dropping out early in the program existed. For the goal of firming up, 49% indicated they felt somewhat successful, while 22% felt unsuccessful. Similar results were reported in the areas of lowering blood pressure and cholesterol levels.

Subjects also listed social reasons such as encouragement by family or friends as playing a significant role in their decision to join the Wellness Center. Of the 190 respondents who indicated socializing as a goal for joining,

14% reported they were somewhat successful with 41% feeling unsuccessful in achieving this goal.

When asked by the author in the open-ended section of the survey to explain their reasons for not achieving social goals, the most frequently cited reason was the failure of an exercise partner to continue to attend. This is especially significant considering that 48% of females and 35% of males indicated they usually attended the Wellness Center with a friend or family member. This is in agreement with the Canada Fitness Survey (1983) and Wankel's (1985) research showing that non-health-related factors such as socialization and social support played an important role in the decision to continue an exercise program.

From this section of the investigation, it seems appropriate to conclude that many of those who did not renew their Wellness Center membership did not feel highly successful in meeting their exercise goals. For those unsuccessful in meeting health-related goals, the literature suggests that a closer relationship should exist between subjects and exercise program supervisors. It is through feedback, proper exercise, and close supervision that subjects are given proper physiologic recommendations and psychological motivation (Danielson & Wanzel, 1977).

For those subjects who failed to meet social goals, it is recommended that attempts be made to develop camaraderie and social support within the exercise group and

encouragement of social support beyond the exercise group (Wankel, 1985). In both of these instances, a professional, well-trained staff that is given time to interact with clients seems essential for success.

Section II--The Effect of Personal Factors

In Section I of the survey, subjects responded to questions about their smoking, occupations, and exercise behaviors. The response to these personal factor questions were then used to statistically compare the various groups such as blue- and white-collar workers to how they responded to Section II questions. The results of the Analysis of Variance in comparing respondents' personal factors to Section II questions is presented in this section of the discussion.

Several personal factors seemed to have an influence on subjects' decisions of non-renewal of the Wellness Center membership. To question 2, "I did not renew my membership because I lacked the motivation to continue," 48% or 152 of 318 respondents answered either agree or strongly agree. This is consistent with the Canada Fitness Survey (1983) and the Fitness Ontario Study (1981), both of which reported lack of motivation as the second largest obstacle to regular exercise.

Statistical analysis revealed a significant difference between smokers and nonsmokers in their responses to several items. To questions 7 and 8 relating to non-renewal of membership due to boredom and lack of enjoyment, smokers were significantly more in agreement that these factors influenced their decision than were nonsmokers. This is similar to results reported by Massie and Shephard (1971) and Oldridge (1979).

In considering the effect of occupational status, three questions revealed significant differences between blue collar, white collar, and those whose jobs were a combination of blue- and white-collar status. The combination group was more likely to agree they did not renew their membership due to the inconvenient location of the Wellness Center and poor driving conditions. The combination group was also more likely to agree that they did not renew their membership due to religious or civic group responsibilities.

The implication of findings in this area seems to point out the importance of a systematic, well-structured motivational program for exercise participants. With a significant percentage of respondents indicating lack of motivation or boredom and non-enjoyment of exercise sessions, motivation becomes a crucial consideration. Among the motivational techniques recommended in the literature are: an on-going program informing participants in regard to healthful and contraindicated exercise practices and an awards and recognition program utilizing bulletin boards, fitness newsletters, educational meetings, spousal participation, personal progress charts, and awards such as

T-shirts and gym bags for recognition of accomplishment (Franklin, 1978).

These extrinsic reward techniques are aimed at helping participants continue to exercise until an intrinsic system can develop. Many writers in this area feel a period of time is required for this transformation from extrinsic to intrinsic motivation to occur. It is thus important for the exercise staff to provide the necessary feedback until this process occurs (Franklin, 1988). However, there is no guarantee such feedback will improve adherence in all participants.

Section II--The Effect of Program Factors

A number of program factors seemed to have an influence on a respondent's decision to not renew his or her Wellness Center membership. Of the 318 respondents to questions 4, 41% agreed that the inconvenient location or parking problems influenced their non-renewal decision. In responding to question 5, the effect of the time required to commute, 31% indicated this influenced their decisions of non-renewal.

In the open-ended section of the questionnaire, respondents explained that their feelings concerning the inconvenience of the Wellness Center related more to problems using the parking garage than to the actual location of the center. Female respondents commented on their concerns for personal safety when using the parking

garage during evening hours. Results from this study are consistent with those obtained by Andrew et al. (1981) and Andrew and Parker (1979).

In relationship to question 6 concerning the cost of membership, 39% agreed that membership costs influenced their decision of non-renewal. Open-ended questionnaire responses indicated that the payment plan requiring respondents to commit for a year's membership met with much disapproval. The actual cost of the membership was not found to be as offensive as the lack of flexibility in payment options.

In response to questions 9 and 11 concerning respondents' evaluations of exercise instructions and the Wellness Center's professional staff, both received ratings of excellent. Of 317 respondents, 281 or 89% of respondents disagreed that they did not continue their membership due to the Wellness Center's staff. Open-ended responses of subjects were highly complimentary of the exercise instructors and staff of the Wellness Center. Respondents did comment that there should have been more flexibility in the times that aerobic dance classes were offered. Especially mentioned were the number of classes that started at 5:00 p.m. which coincided with the time many subjects were getting off from work. The desire for a 5:30 p.m. or 6:00 p.m. class was frequently mentioned.

Implications for improving adherence from this section of the investigation highlights the importance of improving parking conditions and making payment plans more flexible. With the Wellness Center's downtown location, use of the parking garage will probably continue to be a necessity. Possible suggestions for improvement of the parking area include provisions to ensure feelings of patron safety, especially during evening hours. Increased flexibility with multiple payment options is also suggested as a possible area for consideration.

Section II--The Effect of "Other" Factors

Categories in addition to personal or program were examined to gauge their effect on the decision of membership non-renewal. One of these "other" factors was that of spousal support. Question 15 regarding lack of spousal support did not surface as a significant contributing factor to membership non-renewal in this investigation. Only 9% of those married respondents indicated lack of spousal support as an influencing factor. This is in contrast to research by Andrew and Parker (1979) and Heinzelmann and Bagley (1970).

Two related areas that did surface as having an influence on membership non-renewal were questions 18 and 19 pertaining to increased responsibility at home and work. Thirty-eight percent of respondents agreed that increased responsibilities at work had influenced their decision and

47% attributed additional responsibilities at home to influencing their membership non-renewal. Of those reporting increased responsibilities at home, statistical analysis revealed women were more likely than men to agree that duties at home influenced their non-renewal decision. Women were also more likely than men to attribute inclement weather and poor driving conditions as a factor influencing non-renewal. However, only 14% of respondents indicated driving conditions as having significantly influenced their decision.

Responses to question 17 regarding injury or medical problems indicated that 13% dropped out for this reason. This is a low percentage compared to data reported by Pollack et al. (1977) and Wankel (1985). Of these 40 respondents who indicated injury as an influence, only five indicated the injury resulted from their exercise program. Of the five, three complained of shin splints and two of low back pain. This seems to indicate that this Wellness Center's fitness instructors and exercise physiologists were doing an excellent job providing exercise leadership and prescription.

Section III--Results of Enticement Questions

From the list of enticements that possibly could have influenced subjects to maintain their Wellness Center membership, being allowed to exercise during working hours

(64.5%), working less hours (59.7%), and having their employer pay the membership costs (51%) were the three most frequent responses. Female respondents also indicated that having a friend with them to exercise would have influenced their continuation of membership.

Limitations

In analyzing the results of this study, it is important to recognize the limitations of the data. The data were retrospective in nature collected from some as many as 24 months following the withdrawal from the program. It is thus possible that the results reflect rationalizations rather than actual motivations of respondents. However, research methodology along with the obtained results and their comparisons to other studies seem to support the credibility of the findings. It must also be kept in mind that data came from one Wellness Center.

Methodology Support

In regard to the research methodology, interviewees were informed at the beginning of the interview that all information was to be kept in strict confidence. The purpose of the study explained that the data were to be collected for educational purposes only. Subjective observation indicated that the participants appeared to be genuinely interested in the interview, treated it seriously, and appeared to provide accurate responses to the questions.

In considering the accuracy of the data obtained, several points seem significant when reflecting on the telephone interview process. One is that after coming to an understanding of the nature of the study, the great majority of interviewees were glad to give their time in answering questions concerning the Wellness Center. This was reflected in the time given to answering the open-ended questions. The responses tended to be thorough and insightful as to problems and perceived solutions. Also impressive was the decisive manner in which the respondents indicated their reasons for membership non-renewal. It was the rare individual who seemed unsure and indecisive as to his or her motivations for non-renewal.

Another consideration in supporting the nature of this investigation is the number of studies that have used the same or similar research methodology. Post-hoc interviews have been used to collect data in adherence research by Wankel (1985), Franklin (1978), Danielson and Wanzel (1977), Andrew and Parker (1979), Andrew et al. (1981), Boothby et al. (1981), Robinson and Carron (1982) the Canada Fitness Survey (1983), and the Fitness Ontario Study (1981). Thus, the research methodology used in this investigation is not a novel or unique approach.

Conclusions

The results of this study indicate that decisions to not renew Community Wellness Center memberships results from a combination of factors. Personal, program, and other factors each tend to play a role in the decision-making process. It thus seems important for fitness directors to monitor participant reactions as an on-going process.

Program modifications can then be made as the need arises for such changes.

Fitness directors should particularly be alert and open to suggestions made by clients who have made the decision of membership non-renewal. Soliciting input as to reasons for the decision and possible changes that could be made for program improvement should be made on an on-going basis. As this investigation has shown, minor changes in program offerings or policies can be the deciding factor in a client's decision to continue or withdraw from an exercise program.



Appendix A Permission Request Letter Scott Bryan

Box 31, Bluefield College

Bluefield, Virginia 24605

January 2, 1989

Mrs. Lynne Krulich
Bluefield Community Wellness Center
418 Federal Street
Bluefield, WV 24701

Dear Mrs. Krulich:

I am writing to you in regard to the exercise adherence study we had previously discussed. I would like to formally request permission for access to the files of former members of the Bluefield Community Wellness Center. This information will be kept strictly confidential and used primarily to obtain basic descriptive data.

Upon completion of this study, I will return these files to your office. I will also make available to you the results of this investigation.

Sincerely,

/s/

Scott C. Bryan II

Appendix B Permission Granted Letter

Bluefield Community Wellness Center 418 Federal Street Bluefield, WV 24701 January 9, 1989

Mr. Scott Bryan
Bluefield College
Bluefield, VA 24605
Dear Mr. Bryan:

Thank you for your letter inquiring about the use of our expired membership files for your Dissertation on exercise adherence.

You may use what files we have for your study. I realize you will be contacting most of these individuals for information. Therefore, I suggest that you ask them for permission to use any personal data that you might need. Most of them, I believe, will be cooperative and helpful.

I am excited about the information your study will provide. If I can be of further help, please let me know. Sincerely,

/s/

Lynne Krulich

Director

Appendix C
Telephone Survey

Appendix C

TELEPHONE SURVEY INTRODUCTION

Hello, may I speak with Mr./Mrs./Miss Yes, this is he/she--Option A OPTION A Investigator: My name is Scott Bryan and I am a professor of Physical Education at Bluefield College. I am calling to gather information for a research study on why people quit exercising at the Bluefield Community Wellness Center. I do not work for the Wellness Center and will not try to sell you another membership. Mr./Mrs./Miss______, I simply would like to ask you some questions about your past exercise habits. Any information you provide will be used for educational purposes and kept in confidence. The questions should take approximately ten minutes of your time. I will be most appreciative if you would help me by answering these questions? Subject: Yes, you may proceed. Subject: No. Investigator: I understand, is there a time when I could call you back that would be more convenient? Subject (a): Yes (subject states time). Subject (b): No.

Investigator: Thank you for your time. If you should

reconsider, please feel free to call me (specify day(s) and
time).
OPTION B
Investigator: Hello, may I speak with
Mr./Mrs./Miss?
Response: No, he/she is not home.
Investigator: This is Scott Bryan calling, I teach at
Bluefield College and I need to aska
few questions related to a research study I am doing. Could
you suggest a time when I might reach Mr./Mrs./Miss
?
Respondent:
Investigator: Thank you for your time, I look forward to
speaking with Mr./Mrs./Miss on
at and will call at that time.
OPTION C
<pre>Investigator: Hello, may I speak with Mr./Mrs./Miss?</pre>
Respondent: They do not live here any more.
Investigator: Would you happen to have a telephone number
or address where Mr./Mrs./Miss may be
reached?
Respondent: Yes
Investigator: Thank you.
Respondent: No.

Investigator: Do you have any idea how I might get in touch					
with Mr./Mrs./Miss?					
Respondent: No.					
Investigator: Thank you, anyway, I appreciate your time.					
Section I					
General Information					
Questions 1-5 will be obtained from the former client's					
file; therefore, these questions will NOT have to be asked					
over the phone.					
The telephone questions will begin with question 6.					
1. <u>Sex</u> <u>Male</u> <u>Female</u>					
2. Birthday					
3. Subject's type of Membership					
A. <u>Supervised Membership</u> (This plan included an initial					
assessment of percentage body fat, sin-n-reach flexibility,					
estimated max Vo ₂ from bike test, resting HR, and blood					
pressure in addition to follow-up assessments, usually every					
six weeks.)					
B. <u>Unsupervised Membership</u> (No physiological assessments					
provided)					
C. Type of MembershipSingleFamily					
CorporateStudent					
4. Race White Hispanic Black					
OrientalOther					
5. <u>Marital Status</u> Single Married					
DivorcedDivorced/Remarried					

6. Mr./Mrs./Miss		does your job				
involve physical	labor or is it more of	an office-type				
position involving mostly desk work?						
Blue Coll	arPhysical Labor					
White Col	larDesk Job					
7. While exercis	ing at the Wellness Cer	nter did you smoke?				
Yes	No					
8. Are you prese	ntly exercising an aver	age of three days a				
week for fifteen	minutes or more?	NoYes.				
If yes, where do	you now exercise?					
Specify	. What typ	oe(s) of exercise do				
you usually do the	ere?					
Specify	·					
9. When I mention	n the following exercis	ses would you tell				
me how many days/	evenings a week on an a	verage you				
participated in the	his type of activity an	nd the approximate				
number of minutes	your exercise(s) laste	ed while you				
attended the Wells	ness Center?					
	Days a Week	Approx. Minutes				
Aerobic Dance						
Low Impact						
High Impact						
Bandercise						
Lifecycle						
Ayre Dyne Bike	e					
Nordic Track						

	<u>Days a Week</u>	Approx. Minutes
Rowing Machine	***************************************	
Arm Ergometer		
Stair Master		
Walking Outside		Attributeronismon
Jogging Outside	- The American	
Treadmill		
Free Weights		
Nautilus		
Sauna		
Whirlpool		-
Otherspecify		
10. Did you usually exercis	se before work,	during work
hours, or after work? If no	ot employed out	side the home, did
you usually exercise in the	morning, after	noon or in the
evenings?		
Before/morning	_After/evening	
During/afternoon		
11. Did you usually exercis	se alone, with	someon e , or in a
group?		
Alone		
With SomeoneI	Friend	_Spouse
Family Member		
In a Group Exercise	e Class	

12.	How did you usually	get to the W	Wellness Cent	er?
	Drove		Car Pool	.ed
	Walked/Jogged		Took a B	Bus
	Biked		Other	
			Specify	
13.	How many miles did y	ou travel to	get to the	Wellness
Cent	er?			
14.	How many minutes did	this drive	usually take	.?
15.	What was the highest	grade you c	completed:	
	Circle 1, 2, 3, 4, 5	, 6, 7, 8, 9	, 10, 11, 12	
	CollegeNumber of Y	ears	Degree	
	Graduate SchoolTyp	e of Degree		
	MA, MED, Ed.D, Ph.D,	Medical Doc	tor, Other_	
16.	What were your goals	or reasons	for joining	the Well-
ness	Center?			
Heal	th Reasons	Highly Successful	Somewhat Successful	Not Successful
1	Doctor's Advice			
]	Lose Weight			
]	Firm/Tone Up	<u></u> -		
]	Lower Blood Pressure			
1	Lower Cholesterol			
<u>;</u>	Improve Diabetic Condition		-	
	Recover from Heart Attack			
	Reduce Stress Fension/Anxiety			

Health Reasons	Highly Successful	Somewhat Successful	Not Successful
Improve Physical Fitness/Stamina			
Prevent a Heart Attack			
OtherSpecify			
Social Reasons			
Encouraged by Family/Friend			
Who			
Spouse			
Children			
Friend			
Boyfriend/Girlfriend			
To Have Something to do with Free Time			
OtherSpecify	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	 	

17. As I read back to you the primary reasons you gave for joining the Wellness Center (question 16), tell me if you felt you were highly successful, somewhat successful, or not successful in meeting your exercise goals. (After reading back to subject the first goal, re-ask if he/she felt highly successful, somewhat successful or not successful in meeting his/her goals.) Have subject rank each response given in question 16.

18. Did you participate in organized team sports?
In youth sports/community sportsif yes, specify
In high schoolif yes, specify
In college (if applicable)if yes, specify
Section II
Reasons for Non-renewal of Membership
There are usually many reasons why a person chooses NOT
to continue with an exercise program. I am going to make a
number of statements that related to why you did NOT continu
to exercise at the Wellness Center. For each statement that
is made, Mr./Mrs./Miss, I would like
for you to answer whether you agree or disagree, strongly
agree or strongly disagree, of if you are undecided. Any
time you would like for me to explain what is meant by a
particular statement, feel free to ask. Again, after I read
a statement to you, tell me if you agree or disagree,
strongly agree or strongly disagree, of if you are undecided
I did not renew my membership because:
SD D U A SA
1. I failed to meet the goals I
2. I lacked the motivation to
3. It made me tired and feeling fatigued interfered with my job performance and other things.

		SD	D	U	Α	SA
4.	The Wellness Center's inconvenient location and parking problems.					
5.	The time required to commute.					
6.	The cost of a membership was too much.					
7.	I was bored.					
8.	I did not enjoy the exercise program.					
9.	I disliked the aerobics classes.					
10.	I was displeased with the equipment available.					
11.	I was displeased with the Wellness Center's staff.					
12.	Child care was not available.					
13.	I was displeased with the child care that was provided.					
14.	I was displeased with locker room/shower facilities.					
15.	My spouse did not support my decision to exercise.					
16.	Inclement weather and poor driving conditions often made it difficult to attend.					
17.	I suffered an injury and/or had a medical problem. If agree or strongly agree, was the injury or medical problem due to exercising at the Wellness Center? Specify injury					

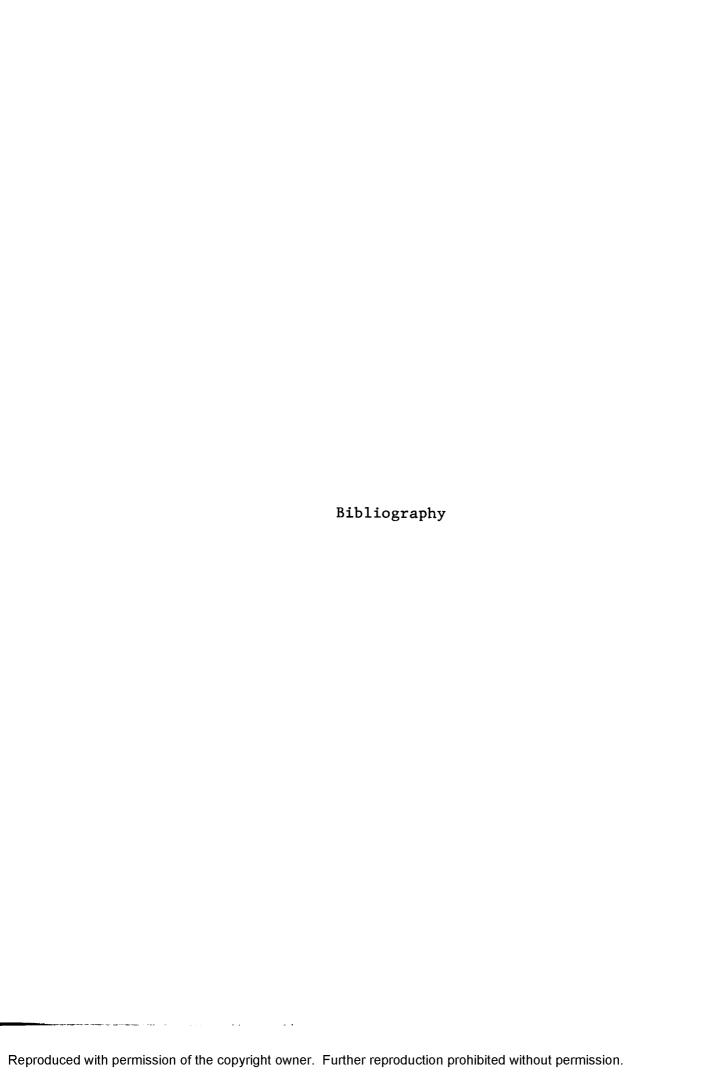
		SD	D	U	A	SA
18.	Increased responsibilities at work or school made it difficult to exercise.					
19.	Increased responsibilities at home made it difficult to exercise.					
20.	Increased responsibilities with religious or civic groups made it difficult to exercise.					•••
21.	Mr./Mrs./Miss, would you list the most important to renew your Wellness Center me		sons	our ov you o	vn wor chose	rds, not
	a.					
	b.					
	c.					
	d.					
	e.					
	Section III					

Situational Determinants

A. Mr./Mrs./Miss, ________, I have just a few more questions to ask. I am going to mention a number of items that you may not have had available to you while you were exercising at the Wellness Center. I would like for you to consider each item and tell me if this particular service or program had been available would you have continued to exercise at the Wellness Center. For each question, answer yes, no, or if it does not apply to you.

I would have continued if:

		Yes	No	N/A
1.	The employer had paid my membership costs.			
2.	I was allowed to exercise during working hours.			
3.	If my spouse could have exercised with me.			
4.	Some one was available to help with household chores.			····
5.	I was given a significant deduction on my life/health insurance premiums.			·····
6.	A friend or group exercised with me.			
7.	I worked less hours.			
8.	I had fun while exercising.			
9.	Fitness instructors were more personable.			
10.	My physician had prescribed an exercise program.			
В.	I have one last question. What would poss	ibly	cause	you
	to purchase another Wellness Center member	ship?	You	may
	give me more than one response or reason.			
	1.			
	2.			
	3.			
	4.			
	5.			



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