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Health club member survey

Christiaan Michael Peters
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HEALTH CLUB MEMBER SURVEY

A Thesis

Presented to

The Faculty of the Department of Human Performance

San Jose State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Arts

By

Christiaan Michael Peters

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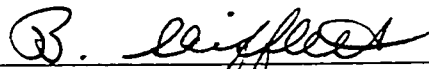
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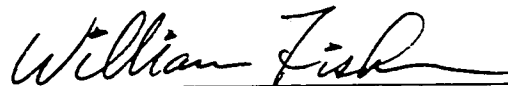


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Mr. Yves Zsutty, City of San Jose

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ABSTRACT

HEALTH CLUB MEMBER SURVEY

by Chris Peters

Few scientific studies have examined health club member needs. The purpose of the current study was to assess health club member needs. A questionnaire was designed and mailed to 770 current health club members at four clubs. Returned questionnaires totaled 138. Factor analysis of the Likert scale items yielded 4 factors with good ($\alpha \geq .70$) reliability. The emergent factors were “services” ($\alpha = .7842$), “time” ($\alpha = .7527$), “facilities” (.7471) and “atmosphere” ($\alpha = .7134$). Factor scores (average of responses to items comprising a factor) for “atmosphere” appeared disparate enough to warrant a t-test when examined by gender (males=2.89, females=3.54). There was a difference of both statistical ($t=4.56$, $CV=1.98$, $\alpha \text{ level}=.05$) and practical (effect size=.9348) significance between males and females with regard to the factor “atmosphere.” This finding was tempered by design flaws and sampling bias. Nevertheless, it was recommended health club managers consider the “atmosphere” needs of both males and females when planning and decision-making around health club services and facilities.

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Chapter 1

Introduction

It is widely held that exercise is “good for you” (Robison et al., 1992). However, only about one in ten people exercise enough to positively impact their health (Berger, 1996). Some people join health clubs with the intent to exercise and improve their health (Hurrell, 1997). Unfortunately, it has been found that high percentages (about 40%) of health club members do not visit their clubs as often as once a month, and similarly high percentages of members quit annually (Fitness 101 booklet, IHRSA stats).

Research has reported that more than half of those who join an exercise program quit within six months (Marcus & Stanton, 1993). Furthermore, health clubs themselves fail at a high rate (McCarthy, 1987). Paradoxically, working out at clubs was the third most popular type of “sports activity” (behind boating and roller skating) in the United States in 1995 (U.S. Bureau of the Census, 1997). There were about 20 million health club members nationally in 1995 and working out with weights was the fifth most popular “sport” (Lazich, 1998). Health club profits were also impressive. The percentage increase in revenues for health clubs in California between 1985 and 1992 was over 100% while the number of clubs increased from 944 to 1,218 (Darnay, 1996). In the region this project will focus on (Santa Clara Valley) there are more than 70 commercial clubs (Bergstrom, 1997).

Despite the growth in health club memberships, exercise adherence is poor (Wankel & Thompson, 1977). One possible factor contributing to this problem is an inadequate

understanding of the needs of health club members, would-be members and former members. If health clubs recognized and attended to these needs, it is possible that members would use their clubs more often and quit less frequently. Given this may be the case, it is important to find out what people want and need in a health club so they will be more likely to use the facility, experience some of the benefits of regular exercise, and so the facility will remain in business— potentially supporting larger numbers in exercising.

Generally speaking, people aren't exercising enough although it is well known that exercise is good for their health. Unfortunately, just as people may have difficulty quitting smoking or drinking, people are more likely to dropout or exercise irregularly than they are to stick to an exercise program (or, presumably, maintain viable health club membership) (Belisle, Roskies & Levesque, 1987). Nevertheless, health clubs, places that offer exercise facilities and services, are commonplace in Santa Clara valley. This project aimed to gather information pertaining to health club member needs—information which may be utilized by health clubs to support them in serving members optimally. If the health club environment could be more successful in serving member needs then we might effectively go forward and address issues related to encouraging non-members (such as people who cannot afford memberships or those who prefer exercising outdoors) to exercise.

Hypotheses

1. There is no difference in the profiles of current health club members and past members.

2. There is no difference in the health club needs of current members and past members.

Assumptions

This study was undertaken with the assumption that those who join health clubs or show interest in joining health clubs were interested in exercise. Furthermore, the questionnaire was designed under the assumption health clubs should be places where people are encouraged, motivated or, in some way, supported in exercising regularly.

Definitions

Health club: a public facility that offers exercise equipment for paying members or guests including weightlifting machines or free-weights and cardiovascular equipment such as treadmills.

Exercise: planned, structured, and repetitive bodily movement done to improve or maintain one or more components of physical (or psychological) fitness (Casperson, Powell & Christenson, 1985).

Fitness (or Physical Fitness): a set of attributes that people have or achieve that relates to the ability to perform physical activity (Casperson, et al., 1985).

Physical activity: any bodily movement produced by skeletal muscles that results in energy expenditure (Casperson, et al., 1985).

Regular exerciser: one who reports using the health club at least once per week on average.

Delimitations

The study was delimited to current members and former members of Santa Clara Valley health clubs.

Limitations

1. Bias resulting from unrepresentative sample.
2. The author's inexperience limiting the completeness or thoroughness of the study.
3. Small return rate affecting the representativeness and, therefore, generalizability of the findings.
4. Lack of access to health clubs' lists.
5. Lists obtained may not represent the population.

Summary

This was an exploratory study. Little is known about health club members and their needs. It was hoped that the results of this study, despite their limitations, would provide current and future health club operators with helpful ideas on how to better serve their membership.

The study's primary instrument, a mailed questionnaire, was designed to examine health club member needs with respect to factors related to exercise adherence and health club member satisfaction. The study also intended to unveil any differences with respect to the needs of female and male members. The study also collected a wide variety of demographic data which may help to characterize the average health club member and therefore offer insight into various areas of inquiry such as who is not represented in health club membership.

Chapter 2

Review of Literature

Apparently little scientific research has been done on health club member demographics, attitudes or behaviors. Although Wankel and Thompson (1977) studied intervention strategies to improve exercise adherence with female health club members, the bulk of research conducted in exercise behaviors has focused on college students, employees, or participants in a controlled, university setting or heart disease prevention and treatment programs (Martin & Dubbert, 1985). The present study was intended to contribute to our understanding of health club member needs so more effective choices can be made regarding health club facilities and services thereby increasing membership retention, satisfaction, exercise adherence and overall health club effectiveness.

In the magazine, "Club Business International," a publication of the International Health, Racquet & Sportsclub Association, M.J. Johnson, the regional wellness director for New Mexico Sports and Wellness in Albuquerque, said, "Only 20% of the people who come into your club are highly motivated. The rest are nervous, uncomfortable, and probably looking for an excuse to be disappointed, find fault, or give up. These are the people who need to be shown that exercise... can be fun. It's your responsibility to figure out what will work best for each one of them" (Gangemi, 1997). B.H. Marcus, Ph.D. (1997), who has participated in several studies on exercise adherence says, "... (H)ealth clubs do a poor-to-nonexistent job of assessing where a prospect or member is at... (C)lubs do less a good job than they would like to of getting people to start, and

stick with, a program of regular exercise—particularly with respect to the inactive, or deconditioned, population” (p. 18).

Definitional Problems With Interpreting and Conducting Research

One of the problems with comparing results from different research studies, or between research studies and quasi-scientific or non-scientific studies, has been differences in terminology or conceptual and operational definitions. This problem was evident in the literature on levels of physical activity (Stephens, 1987), as ambiguous terms such as “physical activity,” “exercise,” “health,” “fitness,” and “physical fitness” were used interchangeably. Stephens (1987) stated flatly, “Since no satisfactory definition of physical activity has ever been used even twice in comparable surveys, there is simply no reliable source for assessing trends over time” (p. 94). Powell and Paffenbarger (1985) explain that part of the problem lies in the fact that “physical activity is a complex behavior with many interrelated dimensions” (p. 120).

Some, including Casperson et al. (1985), have established interpretational frameworks for concepts such as physical activity, exercise and physical fitness with the hope of aiding consumers of health-related research. Pate (1988) also developed a framework to reduce vagueness and ambiguity around interpreting research on “physical fitness.” Pate (1988) warns that the ambiguity of terms can be disastrous for the field of “Physical Education” (another complex and ambiguous concept). He wrote, “Ambiguity can breed uncertainty and controversy, and in this case I believe it has. This situation is unfortunate and professionally counterproductive because promotion of physical fitness is almost universally recognized to be one of the primary goals of physical education. It seems

obvious that a professional group with vague and controversial goals is unlikely to attain those goals” (p. 174). Alternatively, we might consider contributions such as Stephens’ (1987), “Secular trends in adult physical activity: Exercise boom or bust?” In that article he sorted out numerous studies and surveys to make sense of fitness trends— in other words, in the face of ambiguity, he made straightforward conclusions. As suggested at the opening of this section, the recommendation here is that readers of literature on physical activity and related issues read for ideas and useful or instructive concepts. Analyzing terms may be paralytic.

As if interpreting and integrating our modern day studies on “physical fitness” was not challenging enough, difficulties in interpretation were exacerbated when reviewing retrospective works (Park, 1995). Indeed, the complexities involved when studying “exercise” and “health” increase the further back in history one goes. Uses, interpretations and meanings of words vary across societies and over time (Park, 1994). Although nowadays some writers, for example Bouchard, Shephard and Stephens (1993), were careful to differentiate between concepts such as “fitness” and “health,” colonial America’s definitions of the same concepts were undoubtedly different. Peoples’ impressions and attitudes toward documents about health and fitness and exercise have unfortunately been influenced not only by terminological ambiguity but, by self-proclaimed physical culture “experts,” nostrum hucksters (Park, 1994) and infommercial spokespersons.

Physical Activity Since B.C.

From the beginning of time until, perhaps, the mid-late 20th Century, by far and away most of this planet's population has probably had to “work hard” to support a reasonably comfortable lifestyle or simply to survive. From the extremes of the pyramid builders and cotton-pickers to 20th century office workers, Colonial tory to Roaring Twenties' Brooklynite, the physical demands of occupations and daily life itself have decreased with advances in technology. Although the following section focuses on orientations to “exercise,” some physical activity patterns of daily life are also considered in an effort to conceptualize the “physicalness” of life.

Who was the first person, in the history of time, to exercise to feel better or live longer? It may have been Eve or Adam, or even “Lucy” (long-extinct man-like primate) who first experienced positive responses to light exercise (such as walking) on the digestive system or psyche—but who was the first to actually consciously *choose* exercise as a means to better health? It probably *wasn't* somebody who worked at a physically demanding job 18 hours a day (e.g. 19th century coal miner).

Before 7-Eleven and refrigeration, salt and fire, there was hunting and gathering. Possible hunters and gatherers, our ancestors of about three million years ago— like “Lucy” and her australopithecine relatives— were apparently well-muscled and had the endurance to pursue and kill larger animals (Park, 1992). However, Park (1992) noted, “As long as populations remained small, competition from other species was limited, and the environment was favorable, it is likely that Lucy and her kin only occasionally would have found it necessary to engage in intense physical activity” (p. 188).

The Ancient Greeks participated widely in sports and utilized intense training regimens and innovative diets probably not for health reasons but, to enhance performance and approach *arete* (excellence). Indeed, the popular *tetrad* training regimen was criticized as *unhealthy*—ignoring individual differences and heavy meat eating (for size and strength) were suggested inimical to health (Park, 1992). Nevertheless, Park (1992) claims, “The interest that the Greeks of Antiquity attached to the athletic contest equaled—probably exceeded—the interest that the 20th century has given to sport. By 500 BC, at least 50 games were regularly held throughout the Greek world...” (p.194). Although records were, of course, sparse, it was generally held in the community of historical sport scholars that the Greeks’ training regimens were typically intense and sophisticated (Park, 1992).

The feudal kingdoms of medieval times bustled with physical activity. Peasants planted and harvested, knights battled, clergy maintained self-sufficient monasteries (Park, 1992). In summer, monks averaged nine hours of work in *addition* to “office hours” (4), meditation (1.5 hrs.) and reading (3.75) (Park, 1992). The first person to choose exercise to improve health may have been someone reacting to a lengthy bout of “doing nothing” or some type of confinement. The contrast between sitting quietly for hours at a time and exercising gently could be impressive. Benedictine monks had a rule to “exercise” at three levels every day for balance—spiritual, intellectual and body (Park, 1992). But the monks’ foremost purpose of exercise then was not for physical health but, as fulfillment of religious duty.

According to historical documentation of exercise and fitness trends in this country's history, around 1820 was the first widespread fitness "movement" (Spears & Swanson, 1978; Green, 1986). Prior to this time people in the United States were probably too busy "surviving," "settling" new land and territories, and fighting wars to be keen or energetic enough to do additional physical activity or exercise (Spears & Swanson, 1978).

Although notables such as Ben Franklin had written of the values of physical exercise (Spears & Swanson, 1978), such illuminations were undoubtedly fairly isolated as was most of the country- rural and isolated.

Although it appears that many of the pre-19th century writings on health and exercise were oriented toward athletics, the literature on "physical fitness" is replete with 19th century references to the health benefits of exercise for both athletes and, especially, the general population (Green, 1986; Park, 1992; Park, 1994; Park, 1995; Spears & Swanson, 1978; Vertinsky, 1988).

About 1814, the healthful benefits of exercise were echoed in publications from Georgetown University and reflected on its campus grounds in facilities such as handball courts, boxing and fencing gymnasiums, and dancing halls. In 1823, a program involving gymnastics exercises and weight lifting was instituted at a Boston girls school; the program was reduced to dancing when too many parents complained that the girls' exercises were too masculine (Spears & Swanson, 1978). Both the Georgetown and girls school cases were isolated cases of exercise promotion.

It appeared there were many exercise advocates throughout the 19th century United States. Catherine Beecher, president William A. Stearns of Amherst College, muscleman

George Winship, Dio Lewis and the “New Gymnastics,” Harvard medical professor Dr. Oliver Wendell Holmes, baseball developer Alexander Joy Cartwright, Joseph Cogswell, George Bancroft and Mary Lyon were a few of the 19th century’s promoters of exercise and sport. Several individuals—Cogswell, Bancroft, Beecher, and Lyon—established schools with structured exercise programs (Spears & Swanson, 1978). Beecher was an outspoken and popular proponent of the importance of exercise for the health needs of women especially. Between 1824 and mid-century, Beecher influenced the American public’s perception of the value (both physical and mental) of exercise by founding institutions for exercise, developing and implementing calisthenics programs, and speaking out- she was the daughter of a popular minister (Green, 1986). Catherine’s brother Henry was a famous preacher who advocated the European movement’s notion of “muscular Christianity-“ which emphasized the value of physical strength and vitality through exercise in addition to Christian morality (Spears & Swanson, 1978).

In addition to individual and institutional exercise advocates, sports gained in popularity in the 19th century. As Miller and Fielding (1995) indicated, “... new (positive) attitudes toward sport and fitness and the ideology that bolstered (them) became fully developed between 1820 and 1870” (p. 84). Baseball was the most popular. However, despite the rapid spreading of “baseball fever” and the popularity of professional sport from pedestrianism to boxing, there remained a lot of skepticism about the healthfulness of physical activity (Green, 1986). Pessimists warned participants about “overtaxing their systems” and “becoming completely exhausted” (Green, 1986; 213). However, optimism persisted as well. As Green (1986) points out, “The

pessimism of the ubiquitous critique of Americans' health was counterbalanced by the conviction that human effort could have a positive impact on the condition of the body and the mind” (p. 213).

Generally, in the mid-19th century, the movement of the country was towards unity and community. Railroads, electricity, improvements in manufacturing and communication, and urbanization influenced the movement from towns to cities and games to sport (Spears & Swanson, 1978). Baseball became the first professional sport with paid players, intercollegiate athletics developed, and physical education became a regular program at several colleges (Spears & Swanson, 1978). YMCAs and YWCAs were started in many cities but were short-lived unless they included sports and exercise programs which catered to the paying middle and upper-classes (Miller & Fielding, 1995). According to Spears and Swanson (1978), “As life, especially in the cities, settled around ‘time’ to go to work, ‘time’ to leave work, and free ‘time,’ men and some women sought vigorous physical activity in and out of doors...”(p. 140). They participated in ice skating, croquet, archery, tennis, ballroom dancing and-typically in more rural areas-square dancing (Spears & Swanson, 1978).

The late 19th century’s health and exercise promotion has been compared to this century’s Civil Rights and Women’s Movements (Park, 1994). One of the period’s outspoken doctors, Dr. J. William White “claimed that exercise was the most important therapeutic and hygienic agency at the command of the physician today” (Vertinsky, 1988, p. 97). Conversely, the famous English physician Thomas Sydenham’s (1624-1689)

belief that exercise wasted the body's energy or "animal spirits" probably persisted or, at least, influenced the medical community's theories well into the late 1800s (Park, 1994).

The last decade of the 1800s was marked by Victorian influences and industrialization. Generally, if women exercised at all, they were expected to do so at home. College graduates who enjoyed athletics and physical education in college needed places to "work out" and play sports. Many of these business and professional men utilized "professional gymnasiums" around the turn of the century—places where amateur boxers and prizefighters would train (Ryan, 1976).

In the 20th century, exercise was frequently advised in the U.S. for treatment and healing of numerous diseases or adverse medical conditions resulting from increasingly sedentary lifestyles, long hours at work, high levels of stress, and overeating. As Dr. William Haskell (1996) of the Stanford Center for Research in Disease Prevention at Stanford University wrote, "It is ironic that at a time when advances in technology continue to create an environment that requires less and less physical activity to accomplish every-day tasks, more and more scientific evidence accumulates demonstrating the critical role that habitual physical activity plays in maintaining health, performance capacity, and overall quality of life" (p. S-37). Many of the healthful benefits of exercise have been widely published (Berger, 1996).

In the last thirty years or so the awareness of the health value of exercise has developed and increased. However, exercise promoters and the fitness industry have had limited effect due to change and volatility in the industry, inconsistent quality of health clubs, lack of professional standards, and lack of focus and organization (McCarthy,

1987). In 1975, Milton Terris said, "...(P)hysical fitness and physical education have no respected place in the American public health movement" (Powell & Paffenberger, 1985). Furthermore, Park (1994) suggests, "When studying such questions in relation to *exercise* and *fitness*, the situation has been vexed because until recently there has been a sense that anything that has attracted so many faddists and quacks could hardly be of sufficient worth to merit scholarly attention" (p. 61). But, Powell and Paffenberger (1985) claim that by 1983 the situation had changed significantly (p. 118).

Government supported physical activity promotion increased. The successes and influences on the American public of such prominent figures as bodybuilder/actor Arnold Schwarzenegger coincided with the so-called "exercise boom." The popularity of exercise in the U.S. was compatible with Americans' values of physical beauty and youth. Whatever the reason for exercising, more and more people were doing it every year. According to a study of Harvard alumni between 1962-1977 physical activity increased every year (Powell & Paffenbarger, 1985). Even in professional sports, exercise (strength and conditioning) was probably practiced more widely and intensely than ever before (in the United States).

Despite our modern-day practices and beliefs in exercise, the overall physical activity of our daily lives was probably significantly less than at any other time. According to Park (1992), "Even when the average number of hr/week spent in voluntary participation in sports, exercise, and other active leisure pursuits is added to those consumed in an 'average' work week of 40 hr, very few individuals in the United States or other industrialized countries today can approach the daily energy expenditure levels of

medieval or 19th century farmers, 'pit brow lasses,' of the men, women, and children who toiled up to 16 hr/day in cotton mills or the Caribbean sugar industry. In many nonindustrialized societies, however, daily work patterns differ little from those of labor intensive occupations of past eras" (p. 212). Even the vigorous, high-intensity training regimens of elite athletes such as Michael Jordan and Karl Malone in addition to their long and tiresome schedule in the high-contact sport of professional basketball pale in comparison to the aforementioned accounts of hard, physical labor—especially when taking into consideration compensations like free on-site medical support, astronomical salaries, fame, and any number of creature comforts.

With the decline of occupational physical activity especially since WW II (Stephens, 1987), the popularity of physical activity through sport in the 20th century has been significant. From pee wee leagues and youth soccer to boating and bowling, millions of Americans participate and spend billions of dollars annually on sports and recreation (U.S. Bureau of the Census, 1997). In 1979, consumers spent \$78 million on fitness equipment—in 1985, they spent nearly \$1.5 billion (Legwold, 1985).

Today, health clubs for weight training and aerobics are commonplace. Health clubs come in many varieties and emphasize different facilities and services (Ryan, 1976). However, similarities do exist. For example, Bergstrom (1997) reported that all of the top 25 largest health clubs in Santa Clara Valley offered weight training equipment and aerobics.

Benefits of Exercise

Exercise has been shown to improve health in many different ways and to enhance the quality of life (Robison, et al., 1992; Haskell, 1996). Exercise increases cardiovascular efficiency, improves metabolism, maintains good posture, decreases fatigue, improves overall work production (Boyd & Nielson, 1989), reduces body weight (Marcus & Stanton, 1993), elevates mood, and potentially changes the course of numerous illnesses from hypertension to osteoporosis (Berger, 1996). Exercise benefits people in all aspects of being human—physical (including sexual [Legwold, 1985]), psychological, mental and spiritual (Jackson, 1996). The fact that exercise helps reduce or control body weight—and therefore, improve body image (Boyd & Nielson, 1989)—was probably an additional motivation for many to participate.

Since the early part of this century however, there has been more value placed on thinness (Park, 1994). Although the thin, sleek body image depicted by models in the mass media is consciously recognized as unrepresentative of the average female (and her potential), it was subconsciously pervasive and persuasive (Park, 1994). The present day images of both the ideal woman and man are of “sinewy and well-muscled” bodies (Park, 1994). Although it has been suggested that most people join health clubs for physical fitness reasons (Boyd & Nielson, 1989), many probably join to improve their looks. Of course, as Park (1994) claims, “Today, fitness is often equated with muscle size, body contour, and/or the ability to sustain a 30-minute exercise bout” (p. 62).

In addition to the many health benefits of exercise and the influences of media images and societal values, people also joined health clubs for social factors (Redican & Hadley,

1988). Although social factors usually were not construed as “health” factors per se, “healthy” interaction with others (Spink & Carron, 1993) cannot be ignored as a contributing factor to the positive value of health club exercise.

Exercise Adherence

From the standpoint of exercise professionals and others, people “needed” to exercise—at least, for the health benefits. Obviously, since few did exercise regularly (Berger, 1996) and many dropped out early from exercise programs (Marcus & Stanton, 1993) people also “needed” help to start and maintain exercise programs or habits. Much research had been done on exercise adherence (Leith & Taylor, 1992). Unfortunately, apparently little research has been conducted with health club populations. Most of the research on exercise adherence has involved college students or employees.

The current body of research on exercise adherence has suggested many reasons why people do not adhere to regular exercise practices. The reasons include time scheduling, satisfaction with the program, attentive behavior of the fitness leader, perceived tiredness (Desharnais, Bouillon & Godin, 1987), self-motivation (Dishman & Gettman, 1980), convenience, social support (Martin et al., 1984) family problems, smoking, obesity, depression, anxiety, intensity of exercise, goal setting and job conflicts (Martin & Dubbert, 1985). In addition to descriptive data and predictive variables on exercise adherers and non-adherers, the literature has presented the results of several interventions intended to improve exercise adherence. Generally, interventions (i.e. social support, relapse preparation and behavioral management) have been shown to improve exercise program attendance when compared to control groups.

Experimental groups have also shown slight improvements in some physiologic measures such as VO₂max and resting heart rate (Robison et al., 1992). It appeared that virtually any intervention would have some positive effect(s) on adherence—perhaps in part due to the social support (or human contact) intervention provided. Interventions that have proven to significantly improve attendance and reduce drop-out rates to exercise programs include social support (Wallace, Raglin & Jastremski, 1995), relapse preparation training (King & Frederickson, 1984), team-building (Spink & Carron, 1993), behavioral and cognitive-behavioral strategies (Martin et al., 1984), behavioral management (Robison et al., 1992) and self-persuasion (Wankel & Thompson, 1977).

Some researchers suggested combinations of interventions as being more practical than trying to discover a cure-all to exercise drop-out (Robison et al., 1992; Belisle et al., 1987; Wankel & Thompson, 1977). Indeed, no one intervention was outstanding. Individual differences were too broad to address with a single strategy. The participants in one study indicated that all interventions were important (Robison et al., 1992).

Assessing Needs

Need assessment (NA) studies are undertaken frequently in many different areas of society including government agencies, business corporations, city parks and recreation, and universities (Witkin & Altschuld, 1995). The purposes of performing need assessments can be described in various ways depending on the application. One description that may relate to assessing needs at health clubs is spelled out by Witkin & Altschuld (1995), “An NA is conducted to derive information and perceptions of values as a guide to making policy and program decisions that will benefit specific groups of

people” (p. 5). Crompton (1983) suggests that needs assessments are employed simply for the purpose of determining exactly what the needs of a specific group of people are (p. 1). But a definition of “need” is important to understand NA.

Every Spring, most baseball teams talk about the “need” for pitching. In this sense, the word “need” is synonymous with “something wanted” or, “a favored solution” (Kaufman, 1976). However, a well-designed and effective NA is established on a different notion. A fundamentally sound NA assesses “needs” in terms of “gaps” or “things missing” or “discrepancies” (McKillip, 1987) between “what is so” and, “what is desired” (Kaufman, 1976). Therefore, in the baseball scenario, the real “need” could be described as the gap between what is so (probably losing) and what is desired (probably, winning). “Pitching” is one possible solution to close the gap between losing and winning. A needs assessment of baseball teams however, may document numerous gaps unrelated to pitching (such as the gap between errors and fielding percentage or, hits and home-runs or, strikeouts and on-base percentage) hence leading to a list of possible solutions- *one* of which may be pitching! A needs assessment of health club members (past and present) may not uncover what they need or want—more accurately, it may determine “gaps” between the status quo and the ideal (health club).

A health club NA might determine a gap between member exercise frequency and desired exercise frequency, in which case a host of possible solutions may be recommended. But a health club NA will NOT generate a list of solutions or “what members want.” Focusing on “what’s missing” rather than “solutions” potentially allows for more effective solutions by 1) accurately assessing gaps, 2) considering alternative

solutions and 3) avoiding hasty solutions (Kaufman, 1976). Setting goals, developing programs, pricing, facilities, personnel etc. etc. all assume that a need assessment has been done (Crompton, 1983). NAs can provide the support data for effective development and application of health club facilities and services.

The purpose of the current study was, in part, an NA to document what is missing for health club members and past members. Ideally, as Kaufman (1976) writes, "A needs assessment 'harvests' all the gaps for all of the partners, places the gaps in priority order, and selects the highest priority gaps for closure" (p. 41). Partners in the health club environment may include members, front-desk personnel, managers, personal trainers, equipment manufacturers and medical doctors to name a few. The purpose of the current study was to assess needs from the point of view of health club members and management only.

In addition to NA, the current study attempted to gather descriptive data on health club members and past members. Part of the questionnaire developed for the purpose of inquiry was modeled after previous instruments designed to measure consumer perceptions of service quality. These instruments, neither of which were NAs per se, were SERVQUAL (Parasuraman, Zeithaml & Berry, 1988) and QUESC (Kim & Kim, 1995). QUESC was adapted from SERVQUAL by Kim & Kim (1995) for application to sport center members in Korea.

The current project was not intended to be a classic NA rather, to support the health club industry in delivery of effective services and facilities. The purpose was to explore,

describe and assess needs of health club members and past members—to gain insight into what their needs and expectations are.

Summary

This review of literature was intended to give the reader some historical background on exercise, how exercise has been viewed over the centuries especially in this country, and some orientation to the existence and purpose of health clubs. Sections on exercise adherence, health benefits of exercise and need assessment were included to provide further background on topics pertinent to this study.

Historically, exercise (as defined for this thesis) appears to be a recent concept. Although there was nothing new about physical exertion, exercise did not become a widespread and important notion until recent decades. Whereas 100 and 200 years ago most people worked physically hard as a routine part of life (for livelihood or survival), since the late 1900s and the industrial revolution, Americans have become increasingly sedentary. However, it has been found that even completely sedentary people know that “exercise is good for you.”

The health benefits of exercise are significant (Leith & Taylor, 1992). From psychological well-being to physical stamina, exercise potentially has a multitude of positive effects. The problem has been that most people don't exercise—and most who do exercise have typically been inconsistent or quit. Exercise adherence has been studied widely and the results indicate that people respond favorably to various forms of interventions to improve adherence. It appeared the bottom line was most people needed help or support to exercise regularly.

The current study attempted to find out what was missing for health clubs to support all members in achieving their exercise needs and goals. It was not assumed here that all health clubs wished for their members to exercise regularly. It was established here that health clubs, as places to exercise, were potentially leaders in a society which could benefit if people exercised more. The health of the community is intimately related to the health of each individual. Although health clubs serve directly only a portion of the population, including those who can afford membership, it was hoped that improvements in health club service in meeting member needs would be a step in the direction of service to the community at large.

Chapter 3

Procedures

This research project was intended to provide insight into health club member needs and, specifically, what health club members needed to support them in exercising regularly.

Selection and Description of Subjects

A stratified random sample of 1,040 was obtained from health club lists of members and past-members. The sample was stratified by gender (M and F) and status (member/past member). Ages of the subjects were limited to 20-60 years. The exact sample size needed was determined by the final number of items ($n=30$) in the survey times 10. Lists were obtained by request from club managers. As many lists as possible were obtained with a minimum requirement of three clubs' current and past-members represented. No tangible benefits, risks, nor compensation were involved for the subjects.

Survey Design

A questionnaire (Appendices B & C) was designed for administration to current and past health club members to assess what was missing from health clubs in terms of facilities and services which supported people in exercising regularly. The questionnaire was intended to provide health club industry business owners, managers and future leaders with information to help them design health club facilities and services that serve the public optimally. Based on literature regarding exercise adherence and previous health club service research, factors examined were social support, motivation, barriers to

exercise, time, services and facilities. Development of the questionnaire was influenced by previously used service quality surveys, SERVQUAL (Parasuraman et al., 1988) and QUESC (Kim & Kim, 1995).

The questionnaire was comprised of five closed response items for each factor, a set of demographic items, and an open-ended response section. Items were combined or eliminated after thorough review and expert criticism.

Advice or critique of the questionnaire was solicited from four sources as recommended by Crompton (1983). First, five people NOT involved with the development of the questionnaire were asked to critique it. Second, three health club members (or others who may not have been interested) were asked to look over the questionnaire and comment on presentation quality and readability especially, as opposed to format. Third, one expert in questionnaire development was asked to review the questionnaire. Fourth, following approval by the human subjects review board (Appendix I), a pilot test was administered to a convenience sample at the Student Union Recreation Center (SUREC) at San Jose State University which quantitatively assessed reliability via coefficient alpha and content validity via factor analysis. Based on the information obtained from these sources the questionnaire was revised.

Pilot Test Procedures

The manager in charge of memberships at the SUREC was contacted in person and informed of the present study. A time was arranged for a brief interview and to formally request a list of members (past and present). Informed consent to sample SUREC members was provided by the manager both verbally and in the form of a written and

signed note. A convenience sample of 50 subjects was selected from the list for the pilot study. Each subject was mailed a questionnaire (Appendix A) along with a cover letter (Appendix D) with a "return by" date. Subjects were simply asked to complete and return the questionnaire. Subjects were given the option whether or not to receive results of the study in the mail. On the "return by" date, analysis of the data obtained commenced. A follow-up mailing (Appendix H) was utilized to improve the return rate.

Pilot Study Data Analysis

Data analysis began with factor analysis as a measure of content validity and coefficient alpha as a measure of reliability. Demographic data were summarized for the group as a whole. Means and standard deviations were reported for continuous variables and frequency distribution tables were generated for all categorical variables.

Primary Study Procedures

A brief interview (Appendix G) of participating health club managers was included. The club manager interviews were arranged by telephone contact with club managers. The interviews were carried-out in-person and tape-recorded after obtaining permission from the interviewee. The interview contained only nine questions. The length of the interview was less than 30 minutes.

The study sample was established from the member lists obtained. The questionnaire (Appendices B & C) was mailed to each member of the sample with a cover letter (Appendices E & F) briefly describing the purpose of the study, politely requesting their participation, and securing their informed consent. Each questionnaire mailed also included a self-addressed, stamped envelope. It was requested that the questionnaires be

returned on "return by" date. Subjects' participation amounted to completing and returning the questionnaire. However, subjects were also given the opportunity to receive results in the mail once the study was completed simply by contacting the author by telephone or e-mail. On the "return by" date, analysis of the data obtained commenced.

Primary Study Data Analysis

Following examination of content validity via factor analysis and reliability using coefficient alpha weak items were identified and omitted from subsequent analysis. Data were summarized for subjects' age, gender, marital status, occupation, income, how long they have used clubs in Santa Clara valley, type of exercise regularly engaged in (aerobics, free weights or machines, or sport participation), workout frequency, typical workout duration and intensity, typical time of day of workouts, how long they have been working out at health clubs, and subjects' responses to individual items comprising each factor. For the group as a whole, measures of central tendency and variability were reported for continuous variables and frequency distribution tables were generated for all categorical variables.

Subsequently, item responses and factor scores (average of responses to items comprising a factor) were cross-tabulated with gender and status (current or past member). Where patterns emerged, results were presented with "sliding bar graphs" (McKillip, 1987) for the group as a whole and separately by gender. Finally, a content analysis of written responses to open-ended items was conducted and emergent themes summarized in a simple table of percentages.

Chapter 4

Results

This chapter includes a description of the results from the pilot study followed by the results of the primary study presented as follows: descriptive statistics, factor analysis, gender differences in profiles, gender differences in needs. Results of the health club manager interviews are summarized at the end of the chapter. The main question posed by this study was, "What is missing at health clubs that health club members need to support them in exercising regularly?" A related question posed was, "Are there any differences in the profiles or needs of past and current health club members?"

Pilot study

Overall, mean age of pilot study subjects (N=13) was 34 years (SD=8). Average years using health clubs was 7 (SD=4). There were 7 males and 5 females (1 missing data). Most (n=8) of the respondents were single and the most frequently reported (n=6) income range was 25-\$49,000 (Table 1).

Table 1

Pilot Study Frequencies (%) of Categorical Variables

Variable					Total/Missing
	<u>Male</u>	<u>Female</u>			
Gender	53.8	38.5			12/1
	<u>Single</u>	<u>Married</u>	<u>Other</u>		
Marital Status	61.5	30.8	0	12/1	
	<u><\$25,000</u>	<u>25-49</u>	<u>50-100</u>	<u>100+</u>	
Income	7.7	46.2	30.8	7.7	12/1

Factor analysis (Varimax rotation) of the responses to Likert items yielded only 2 factors with good ($\alpha \geq .70$) reliability (Table 2). These 2 factors had adequate content validity based on relatedness of items to factor labels and, singular loading (no co-loading of items across factors).

Table 2

Pilot Study Factor Matrix and Reliability Scores (Coefficient Alpha)

Factor	Item#	Factor score	Alpha
FACILITIES	3.	.989	.8205
	22.	.989	
ATMOSPHERE	30.	.900	.7944
	24.	.866	
	13.	.777	

Questionnaire Development

The questionnaire was revised based on factor analysis of the pilot study, information obtained from qualitative reviews by several individuals and 3 reviews by 1 expert in questionnaire development. Many questionnaire items were altered or omitted. Questions pertaining to years working out in Santa Clara valley (too similar to question about years using health clubs) and occupation (unworkable coding scheme) were omitted and the question regarding workout description was altered (so it wouldn't be misleading or force a choice).

The following items were changed to reflect specific factors in the attempt to have five items to represent each of the six intended factors:

<u>Original</u>	<u>Revised</u>	<u>Reason</u>
4. The group exercise programs at my health club completely fulfill my exercise needs.	4. I am motivated to work out because I enjoy the atmosphere at my health club.	To reflect the factor "motivation"
<u>Original</u>	<u>Revised</u>	<u>Reason</u>
7. I would exercise more often at the health club if I had a workout partner.	7. I wish my health club had a service for members to find workout partners.	To reflect the factor, "service"
9. I don't use most of my health club's equipment because I don't know how.	9. I would work out at the health club more often if the personal trainers/fitness staff were always available for assistance.	To reflect "service"
13. My health club is a pleasant environment for exercising.	13. The other members at my health club make it a pleasant environment for exercising.	To reflect the factor "social support"
19. I exercise more regularly as a result of joining my health club.	19. I have more motivation to exercise regularly as a result of joining my health club.	To reflect "motivation"

The next few items underwent language alterations after expert review and review by a health club member and two health club employees:

<u>Original</u>	<u>Revision</u>
2. I need more motivation from the health club employees to exercise regularly.	2. I am motivated to work out because my health club is clean and modern.

(note: "Motivation" oriented items #2 and #4 contained 2 or more ideas and therefore remained problematic for the primary study version of the questionnaire.)

- | | |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 12. I am familiar with the exercise equipment at my health club. | 12. The exercise equipment at my health club is easy to use. |
| 14. My health club's personal trainers are not qualified. | 14. The personal training at my health club is inadequate |
| 18. My health club has adequate space to exercise. | 18. The equipment at my health club is logically organized. |
| 25. My health club closes too early. | 25. I miss my workout at the health club because I'm at work/school when the health club is open. |

Question #41 (...years working out at health clubs...) was deleted because it was deemed too similar in quality to question #35 (...years using health clubs in Santa Clara valley...) and the questions had the same mean response. Similarly, item #s 33 and 34 were combined. Items #31 (...how motivated you are...) and #32 (...level of satisfaction...) were deemed unnecessary by expert review and omitted.

Primary Study

Past members were left out of all data analysis because of an inadequate sample size (only about 4% of questionnaires mailed to past members were returned, N=13) and the possibility that past members would be significantly different than current members. Eighteen percent (18%) of a total 770 of the *current member* questionnaires were returned, making a sample size of 138. The sample was drawn from four health clubs in the Bay Area. Two clubs *outside* Santa Clara Valley (after numerous club sites declined participation) and 2 clubs in Santa Clara Valley.

Descriptive Statistics

Collectively, current health club members average age was 42 years (SD=11). Most of the 138 total subjects were female (n=82). Forty-three subjects were male and 13 did not report their gender. The most frequent response (41.3%) regarding income was in the 50-\$100,000 range. The second most common income (22.5%) was \geq \$100,000. Regarding marital status, approximately half the subjects were single and half were married.

Only 49.3% of all subjects reported using machines in their health club workouts. Free weights (53.6%) were more popular than machine exercise (49.3%) or aerobic classes (38.4%). However, cardio activity (61.6%), such as treadmill exercise, was the most popular health club activity. Swimming, offered by only one club in the study, was participated in by 20.6% of respondents. Spinning, sports, yoga and martial arts, which collectively accounted for less than 10% of health club activities, were not offered by all the health clubs surveyed.

For the group as a whole, gender, marital status, income, workout types, workout length, workout time of day, workouts per week and comfort using free weights frequencies are displayed in Tables 3-6. Average age and years using health clubs are displayed in Table 7.

Table 3

Frequencies (%) of Categorical Variables

Variable					Total/Missing
	<u>Male</u>	<u>Female</u>			
Gender	31.2	59.4			126/12
	<u>Single</u>	<u>Married</u>	<u>Other</u>		
Marital Status	44.2	43.5	3.6	126/12	
	<u><\$25,000</u>	<u>25-49</u>	<u>50-100</u>	<u>100+</u>	
Income	4.3	15.9	41.3	22.5	118/20

Table 4

Frequencies (%) of Typical Workout

Activity	Yes	No	Total	Missing
free weights	53.6	37.7	126	12
machines	49.3	42	126	12
cardio	61.6	29	125	13
aerobics	38.4	52.2	126	12
sports	8.7	82.6	126	12
swimming	18.8	72.5	126	12
spinning	5.1	86.2	126	12
martial arts	1.4	89.9	126	12
yoga	9.4	81.9	126	12

Table 5

Workout (WO) Length, Workout Time of Day, and Workouts per Week FREQUENCIES (%)

	<u><30 min.</u>	<u>31 min.-1hr</u>	<u>>1 hr</u>					<u>Total/Missing</u>
WO Length	0.7	42	48.6					126/12
	<u>Morning</u>	<u>Lunch</u>	<u>Afternoon</u>	<u>Night</u>	<u>Weekend</u>			
WO Time of Day	28.3	8.7	10.1	58	3			126/12
	<u>One</u>	<u>Two</u>	<u>Three</u>	<u>Four</u>	<u>Five</u>	<u>Six</u>	<u>Seven</u>	
WO per Week	0.7	18.1	44.2	13.8	10.1	2.2	0.7	124/14

Table 6

Response Frequencies (%) to Question #34, "Are You Comfortable Using Free Weights?"

<u>Yes</u>	<u>Medium</u>	<u>No</u>	<u>Total/Missing</u>
44.9	30.4	13.8	123/15

Table 7

Means and Standard Deviations of Continuous Variables

	<u>M</u>	<u>SD</u>	
Age	42.05	10.99	(valid N=123)
Years Using Health Clubs	7.40	6.35	(valid N=126)

Factor Analysis

Factor analysis (Varimax rotation) of the responses to Likert items generated 8 factors. Content validity and reliability (alpha) of factors are illustrated in Table 8. Five factors were retained for further analysis based on factor loadings (which showed items

comprising a factor were related and did not “co-load”) and good ($\alpha \geq .70$) reliability. The factor labeled “social support” was retained though the alpha (.6886) was below the .70 threshold due to the fact that “social support” was so widely reported in the literature as a key component to regular exercise. The remaining factors were labeled atmosphere ($\alpha = .7134$), facilities ($\alpha = .7471$), services ($\alpha = .7842$) and time ($\alpha = .7527$).

Table 8

Factor Matrix and Reliability Scores (Coefficient Alpha)

Factor	Item #	Factor loading	Alpha
SERVICES	9.	.87954	.7842
	8.	.84294	
	7.	.66855	
	10.	.59835	
TIME	20.	.80612	.7527
	25.	.66701	
FACILITIES	3.	.76962	.7471
	22.	.66452	
	18.	.66154	
	12.	.56996	
	30.	.54747	
	2.	.48904	
ATMOSPHERE	13.	.67065	.7134
	5.	.66617	
	21.	.64832	
	4.	.64687	
	6.	.63175	
SOCIAL SUPPORT	24.	.79975	.6886
	17.	.73371	
	29.	.62928	
	16.	.56023	
	14.	.42796	

Observable Patterns

For the entire group, question #24 showed an interesting pattern (Figure 1). An “interesting pattern” was arbitrarily determined to be any case in which at least 75% of all subjects responded to one of the first two response choices at either end of the Likert scale on an individual item. Nearly 90% of all respondents marked 1 (not at all) or 2 in response to the statement, “I don’t exercise regularly because there aren’t sufficient group exercise opportunities at my health club.” Questions 26 and 27 (Figure 2), both regarding time management issues, also showed interesting patterns. However, neither question contributed to the emergent factor structure.

Other items evoked patterns to lesser degrees. Items 10 (incentive programs), 16 (separate areas), 28 (more equipment) and 29 (more social events) all had at least 75% of respondents indicate “1” (not at all) or “2” in response. Similarly, item 3 (equipment in excellent condition) was answered “5” (completely) or “4” by 75% of all respondents.

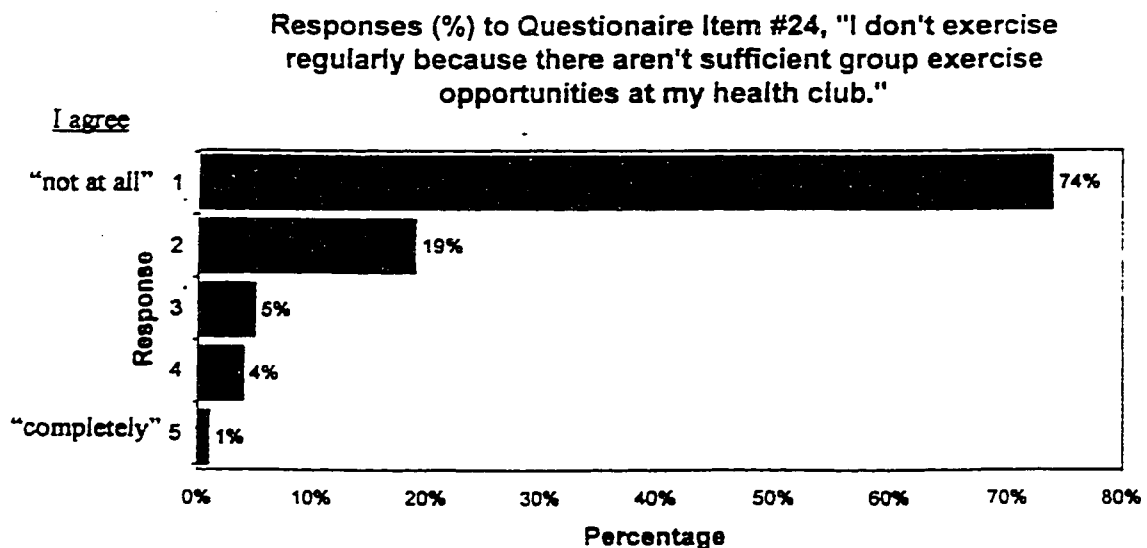


Figure 1.

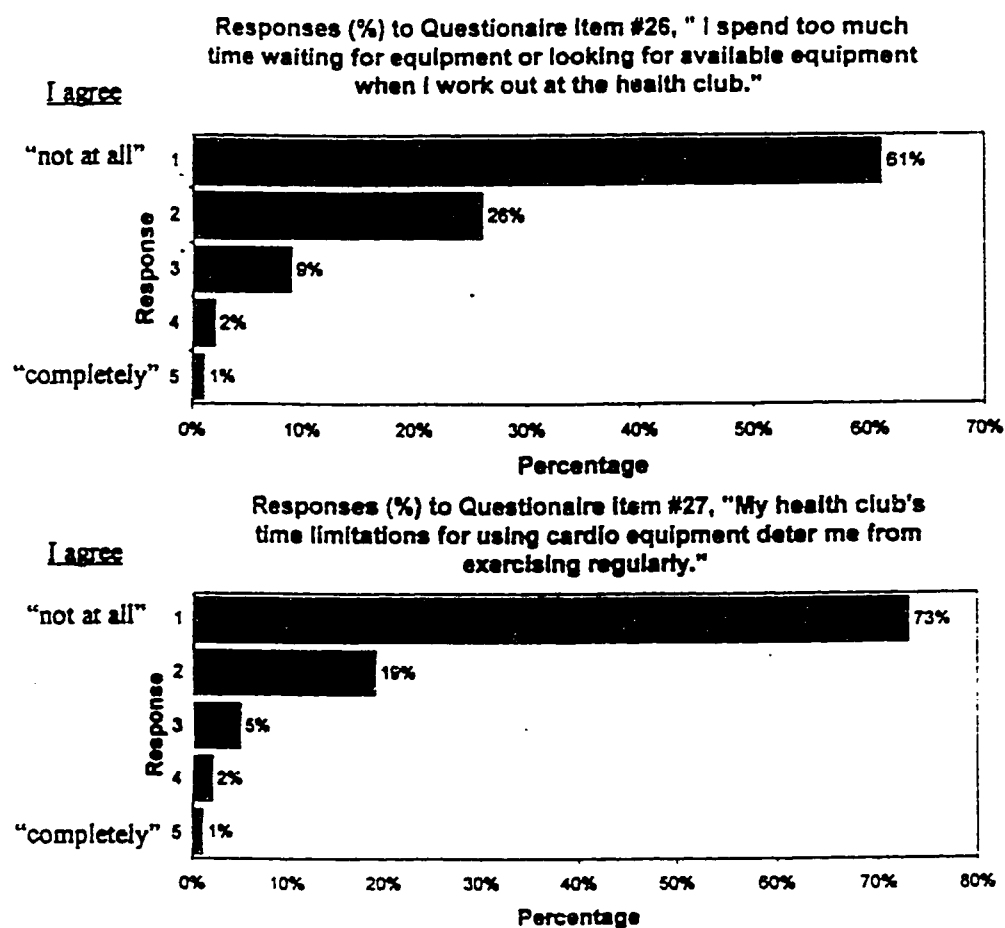


Figure 2.

Gender Differences

Males and females varied considerably in several areas (Tables 9-11). For example, in response to the question, "Do you feel comfortable using free weights?" 67.4% of male respondents checked "yes." The majority of female respondents (58.2%) indicated they were only "somewhat" comfortable (39.2%) or not comfortable at all (19%). Another notable difference was in reported income levels. Ninety-one percent (91%) of those reporting income in the \$25,000-49,000 range were female. Most (83%) of respondents in the <\$25,000 range were female. The \$100,000+ category was divided approximately 50-50 with 16 males (51.6%) and 15 females (48.4%).

When responses were examined by gender, there was also an observable difference in “years using health clubs.” As shown in Table 11, it can be seen that males averaged almost 10 years using health clubs whereas females averaged only about 6. Average age was very similar for males and females (41 and 43 years, respectively).

Table 9

Frequencies (%) of Categorical Variables By Gender

Variable						Total/Missing
		<u>Single</u>	<u>Married</u>	<u>Other</u>		
Marital status,	MALE	53.4	41.8	4.6		125/13
	FEMALE	46.3	50	3.6		
		<u><\$25,000</u>	<u>25-49</u>	<u>50-100</u>	<u>100+</u>	
Income,	MALE	2.4	4.8	53.6	39	117/21
	FEMALE	6.5	26.3	44.7	19.7	

Table 10

Response Frequencies (%) By Gender to Question #34. "Are you comfortable using free weights?"

	<u>Yes</u>	<u>Medium</u>	<u>No</u>	<u>Total/Missing</u>
MALE	67.4	23.2	9.3	122/16
FEMALE	41.7	39.2	18.9	

Table 11

Means and Standard Deviations of Continuous Variables By Gender

		<u>M</u>	<u>SD</u>	
Age,	MALE	40.7	10.52	valid N=122
	FEMALE	42.86	11.28	
Yrs. Using Health Clubs,	MALE	9.72	6.94	valid N=125
	FEMALE	6.15	5.72	

Several items (questions 4, 5, 6, 13 and 17) appeared to have interesting differences in male and female responses (Figures 3 and 4). Questions 4 (enjoyable atmosphere), 5 (enjoy working out around others), 6 (personalized guidance), 13 (others make health club a pleasant environment) and 17 (wish for more group opportunities) were all answered noticeably more positively by females than males. Four of the aforementioned items (questions 4, 5, 6 and 13) loaded under the same factor, "atmosphere." Question #17 loaded under the factor labeled "social support." Of all the factors, "atmosphere" varied most in terms of factor scores by gender. Females' mean factor score for "atmosphere" was 3.54 while males' was 2.89.

Mean Responses By Gender to Item #17, "I wish there were more group exercise opportunities at my health club."

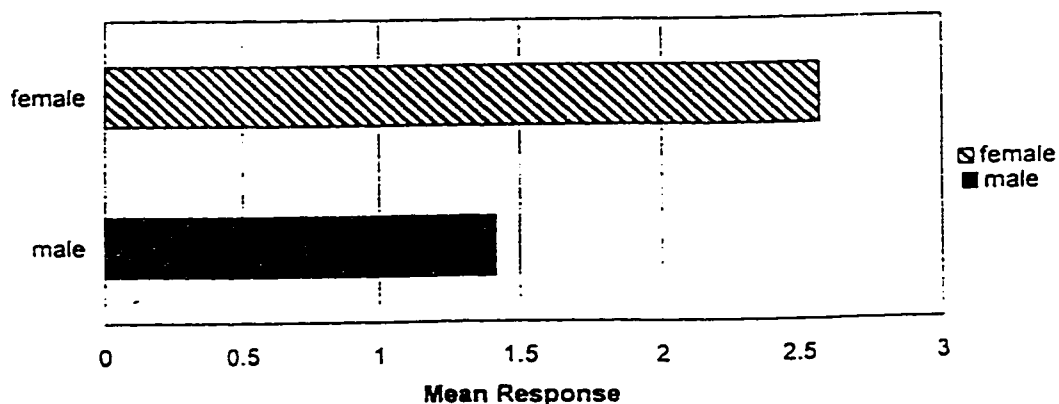


Figure 3.

"Atmosphere" Item Responses By Gender

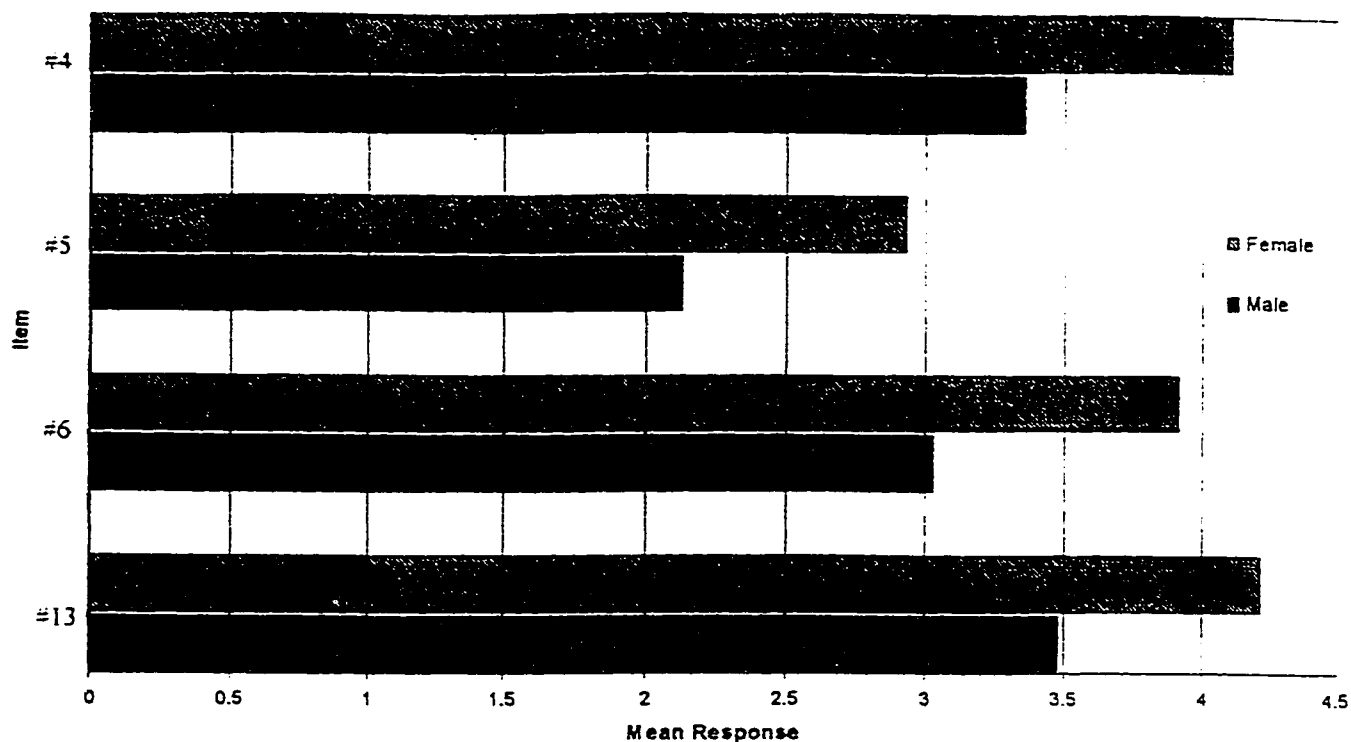


Figure 4. Mean response by gender to item no. 4, "I am motivated to work out because I enjoy the atmosphere at my health club," item no. 5, "I enjoy working out around other members," item no. 6, "The fitness staff's personalized guidance regarding weight-training has helped me to exercise regularly," and item no. 13, "The other members at my health club make it a pleasant environment for exercising."

A t-test was conducted on the mean responses to "atmosphere" related items due to the apparent trend. The resultant $t=4.56$ indicated that the data were statistically significant when compared to the tabled value ($CV=1.98$, α level=.05). An effect size of .9348 indicated a high degree of practical significance with the data.

Based on the factor score difference and gender apparent differences on responses to specific items (4, 5, 6, and 13) it was concluded that there was possibly a difference between males' and females' health club needs in the area of "atmosphere."

Content Analysis

Content analysis of the open-ended question, "Please explain which service or facility is missing..." is presented in Table 12 below. In response to this question the most prevalent request was for more classes such as aerobics. The most frequently requested facility was a swimming pool.

Table 12

"Themes" From Content Analysis (frequencies of 2 or more) On Item #31, "Which service or facility is missing at your health club that would have you more motivated to exercise regularly at the health club?"

<u>Request</u>	<u>Number</u>
More classes or class variety	30
More hours of operation	16
Swimming pool	12
More cardio equipment	8
Child care	4
Personal training	4
Raquetball courts (more)	2
Weight-training classes	2

Not all subjects responded to the open-ended question. Of the written responses, concerns for more classes or class variety were prevalent. Out of 74 total questionnaires with written responses, 30 called for more classes either in number or variety.

Summary

Data analysis was inconclusive on the matter of differences in needs between past and current health club members. Past members were omitted from data analysis as a result of too few subjects. Some interesting trends were observed however, in some questionnaire items for the entire current member sample. In addition, a difference of both statistical and practical significance was discovered between male and female responses to survey items pertaining to the factor labeled "atmosphere."

Chapter 5

Discussion & Conclusion

The purpose of this research project was to investigate the profiles of past and present health club members and their needs especially with regard to regular exercise. Unfortunately, past members were not included in data analysis since their sample size was too small.

Analysis revealed a weak survey instrument that requires substantial development if utilized for future research. An effective pilot study may have improved the development of the questionnaire both qualitatively and quantitatively. In addition, only 50 questionnaires were mailed for the pilot rather than mailing enough to generate a requisite sample size of 50. The resultant sample (N=13) was simply too small to definitively distinguish factors. It was unknown how many weaknesses in the questionnaire could have been resolved with a more effective pilot or a second pilot.

Another possible indication of the weakness of the instrument came perhaps from the inconsistency between responses to item #24 (“I don’t exercise regularly because there aren’t sufficient group exercise opportunities at my health club”) and requests in the open-ended section for more classes. Most of the respondents (121 of 135 valid cases; 90%) circled “1” (No) or “2” (on the scale of 1-5) in response to item #24 but there were no less than 30 requests for more classes or class variety in the open-ended responses. The disparity could have been partly due to the wording of #24 having been “two-faced”—it confounded regular exercise and lack of group exercise. Many items (#s 2, 4, 6, 9, 10, 15, 16, 21) had “two-faced” quality and therefore were less than optimal.

There were other potential problems in the wording of items. The item pertaining to income (#41) could have been interpreted differently by different respondents.

Differences of interpretation could have resulted in married respondents indicating joint income, rather than individual income, therefore skewing the data.

Question #36, "What time of day do you usually work out?" was poor for two reasons, 1) numerous possible interpretations of the word "usually" and, 2) limitation to 1 of 5 answer choices, none of which may have reflected a "usual" workout time for some subjects. Question #35 may have also been weakened by the potentially ambiguous use of "usually."

Remarkably, despite the many possible weaknesses considered in hindsight, many alterations were performed on the survey instrument before the final mailing. After more than three qualitative analyses by three reviewers and 2 additional expert reviews, 18 of the total 46 items from the pilot instrument were either rewritten or eliminated.

The opening 30 items of the final draft questionnaire were intended to illuminate 6 factors; 1) time, 2) services, 3) facilities, 4) motivation, 5) barriers to exercise and 6) social support. When all subjects' (N=138) responses were accounted for, factor analysis extracted 8 factors. Good reliability ($\alpha \geq .70$) was found on only 4 of the 8 total factors. Five factors were comprised of clean items and retained for further analysis. The 5 factors retained were labeled 1) time, 2) services, 3) facilities, 4) atmosphere and 5) social support.

The data did not uncover any impressive gaps in subjects' needs, overall. However, subgroup analysis by gender indicated a definite difference between women and men on

the factor labeled “atmosphere.” The gender differences observed require follow-up since one club in the study was “women only.” In addition to increasing the number of female respondents inordinately, female members of a women only club may be different than typical female members generally. The woman-only club was included to avoid limiting the study population and for the purpose of increasing the sample size.

Indeed, another design flaw could have been that there was no limitation established for health club type. Any club that was willing to participate was included in order to obtain a large sample and a representative picture of all health clubs in Santa Clara Valley. The problems with this were 1) not all clubs were given a chance to participate and 2) different health club types such as women-only, corporate, swimming/no swimming, tennis/no tennis, family-oriented, etc. may involve member profile or need differences much greater in scope than the current study intended to delineate.

The sample was not a true random sample. Furthermore, according to the club manager interviews, 2 of the clubs represented had memberships of primarily “upper-end” business people. Clearly, the make-up of subjects in this study was not likely to reflect the profiles or needs of the average health club member. The reported incomes also probably were not similar to incomes of average health club members.

A follow-up mailing was not performed with the primary study. A follow-up mailing may have increased the sample size of both current and past members. It was also apparent that although a larger sample size would have provided a more stable factor structure and power overall, the study was still substantially weakened by instrument quality and biased sampling.

The study failed to address either of the hypotheses stated in Chapter One since past members were not included. The study did illuminate however, the possibility of gender differences in health club member needs around the factors, “atmosphere” and “social support.” It appeared both factors may be more important to the female population. This may be related to the fact that most health clubs are probably established and operated by males. Certainly, as the study data revealed, it was apparent that males have been using health clubs longer than females—the average “years using health clubs” for males in the study was almost 10 whereas females about 6.

From a logistics standpoint, it was concluded that a much larger mailing might be required in the future if mail questionnaire procedures are used to study past health club members— return rate of “past members” in the current study was only 4%. This small return rate was probably influenced by a variety of factors including old addresses or lack of saliency (“I already quit, what significance is a questionnaire?”) or, of course, apathy.

The main question was, “Are there any differences between past and current health club member profiles or needs?” To address this question by means of survey research a very large mailing is recommended or some other means of inquiry, perhaps interviews or observational research. The current study failed to generate an effective sample size for past members when 270 questionnaires were mailed. Almost 800 questionnaires were mailed to current members and 18% (n=138) were returned.

An important design flaw may have been the lack of past members included in the pilot study. The university recreation center which agreed to participate in the pilot study was unable to provide a past member list. Only 2 of the 4 participating clubs in the

primary study provided lists of past members. It is recommended for future studies concerned with comparing past and current members require that all participating clubs represent each group. Some degree of balanced representation is probably important for both reliable and valid results.

It may be considered important that “atmosphere” emerged as a factor pertinent to health club member needs. Indeed, “atmosphere” was not extracted as a critical factor during the review of literature and therefore did not influence survey design of the current study. However, the consideration of “atmosphere” as a critical factor may be relevant to the design of future health club member research or research on exercise adherence in general.

The study did illuminate a difference of both statistical and practical significance in female and male health club member needs in the area of “atmosphere.” To a much lesser degree the area of “social support” appeared to be more important for females than males. Health club managers and owners may consider these findings when making facility and service choices for their members.

Hopefully, the mistakes and shortcomings of this study will be helpful to researchers in survey design and methodology especially with regard to health club member needs. Effectively surveying past health club members may be especially useful to assessment of member needs overall. Further research is needed to provide direction for those committed to providing effective health club management and to support all people in exercise.

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**Appendix A
Pilot Study Questionnaire**

Health Club Services and Facilities

This section contains statements which pertain to how you perceive your health club. Please respond to the following statements by circling the number which most closely matches your level of agreement.

1 = Not at all 4 = Very much
2 = Very little 5 = Completely
3 = Moderately

		I Agree			
	Not at all				Completely
	1	2	3	4	5
1. My health club's hours are convenient.	1	2	3	4	5
2. I need more motivation from the health club employees to exercise regularly.	1	2	3	4	5
3. My health club's equipment is in excellent condition.	1	2	3	4	5
4. The group exercise programs at my health club completely fulfill my exercise needs.	1	2	3	4	5
5. I enjoy working out around other members.	1	2	3	4	5
6. The fitness staff's personalized instruction and guidance regarding weight-training have helped me to exercise regularly.	1	2	3	4	5
7. I would exercise more often at the health club if I had a workout partner.	1	2	3	4	5
8. I would benefit from more 1-on-1 attention from personal trainers/fitness staff at my health club.	1	2	3	4	5
9. I don't use most of my health club's equipment because I don't know how.	1	2	3	4	5
10. I need more instruction in weight training from health club personnel.	1	2	3	4	5
11. I would exercise more if my health club had incentive programs (like lotteries or tee-shirt prizes) to reward members for regular exercise.	1	2	3	4	5

12. I am familiar with the exercise equipment at my health club.	1	2	3	4	5
13. My health club is a pleasant environment for exercising.	1	2	3	4	5
14. My health club's personal trainers are not qualified.	1	2	3	4	5
15. I skip workouts at the health club because it is too crowded.	1	2	3	4	5
16. I would do weight training more regularly if there were separate men's and women's areas.	1	2	3	4	5
17. I wish there were more group exercise opportunities at my health club.	1	2	3	4	5
18. My health club has adequate space to exercise.	1	2	3	4	5
19. I exercise more regularly as a result of joining my health club.	1	2	3	4	5
20. I find it easy to fit workouts at the health club into my schedule.	1	2	3	4	5
21. I use my health club to exercise because it offers a good variety of sports facilities.	1	2	3	4	5
22. My health club is clean.	1	2	3	4	5
23. I feel uncomfortable while weight training around the other members at my health club.	1	2	3	4	5
24. I am motivated to exercise at my health club because it is clean and modern.	1	2	3	4	5
25. My health club closes too early.	1	2	3	4	5
26. I spend too much time waiting for equipment or looking for available equipment when I workout at the health club.	1	2	3	4	5
27. My health club's time limitations for using cardio equipment deter me from exercising regularly.	1	2	3	4	5
28. I'd exercise more regularly if there was more equipment at my health club.	1	2	3	4	5

The following questions refer to you personally. Please respond in the spaces provided:

35. For how many years have you used health clubs for exercise? _____
36. Which description most closely describes your typical workout (check one)?
- _____ Weight-training with free weights
 - _____ Weight-training with machines
 - _____ Weight-training with cables
 - _____ Weight-training with a combination of the above
 - _____ Aerobic exercise (treadmill, cycle, stairclimber, etc.)
 - _____ Aerobic class
 - _____ Group exercise other than aerobic class
 - _____ Sports (such as raquetball, swimming, basketball)
 - _____ Variety of the above
37. Do you feel comfortable using free weights (check one)?
- _____ No _____ Somewhat _____ Yes
38. For how long do you usually work-out (check one)?
- _____ <30 min. _____ 31 min.-1 hr. _____ >1 hr.
39. What time of day do you usually work-out (check one)?
- _____ Morning _____ "Lunchtime" _____ Afternoon _____ Night _____ Weekend
40. How often do you work-out at your health club? About _____ times per week
41. How long have you been working-out at health clubs in Santa Clara Valley? _____ years
42. Your gender? _____ Male _____ Female
43. Your age? _____
44. Your marital status? _____ Single _____ Married/Partnered _____ Other
45. What is your occupation? _____
46. What is your annual income (check one)?
- _____ <\$25,000 _____ 25-\$49,999 _____ 50-\$100,000 _____ >\$100,000

For copy of results please call Chris 408.293.3577 or e-mail chris@hotmail.com THANK YOU.

Appendix B
Primary Study Questionnaire

Health Club Services and Facilities

This section contains statements which pertain to how you perceive your health club. Please respond to the following statements by circling the number which most closely matches your level of agreement.

1 = Not at all 4 = Very much
2 = Very little 5 = Completely
3 = Moderately

	Not at all	I Agree			Completely
	1	2	3	4	5
1. My health club's hours are convenient.	1	2	3	4	5
2. I am motivated to work out because my health club is clean and modern.	1	2	3	4	5
3. My health club's equipment is in excellent condition.	1	2	3	4	5
4. I am motivated to work out because I enjoy the atmosphere at my health club.	1	2	3	4	5
5. I enjoy working out around other members.	1	2	3	4	5
6. The fitness staff's personalized guidance regarding weight-training has helped me to exercise regularly.	1	2	3	4	5
7. I wish my health club had a service for members to find workout partners.	1	2	3	4	5
8. I would benefit from more 1-on-1 attention from personal trainers/fitness staff at my health club.	1	2	3	4	5
9. I would work out at the health club more often if the personal trainers/fitness staff were always available for assistance.	1	2	3	4	5
10. I would exercise more if my health club had incentive programs (like lotteries or tee-shirt prizes) to reward members for regular exercise.	1	2	3	4	5
11. I like to work out when the health club is busy.	1	2	3	4	5
12. The exercise equipment at my health club is easy to use.	1	2	3	4	5

- | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 13. The other members at my health club make it a pleasant environment for exercising. | 1 | 2 | 3 | 4 | 5 |
| 14. The personal training at my health club is inadequate. | 1 | 2 | 3 | 4 | 5 |
| 15. I skip workouts at the health club because it is too crowded. | 1 | 2 | 3 | 4 | 5 |
| 16. I would do weight training more regularly if there were separate men's and women's areas. | 1 | 2 | 3 | 4 | 5 |
| 17. I wish there were more group exercise opportunities at my health club. | 1 | 2 | 3 | 4 | 5 |
| 18. The equipment at my health club is logically organized. | 1 | 2 | 3 | 4 | 5 |
| 19. I have more motivation to exercise regularly as a result of joining my health club. | 1 | 2 | 3 | 4 | 5 |
| 20. I find it easy to fit workouts at the health club into my schedule. | 1 | 2 | 3 | 4 | 5 |
| 21. I use my health club to exercise because it offers a good variety of sports facilities. | 1 | 2 | 3 | 4 | 5 |
| 22. My health club is clean. | 1 | 2 | 3 | 4 | 5 |
| 23. I feel uncomfortable while weight training around the other members at my health club. | 1 | 2 | 3 | 4 | 5 |
| 24. I don't exercise regularly because there aren't sufficient group exercise opportunities at my health club. | 1 | 2 | 3 | 4 | 5 |
| 25. I miss my workout at the health club because I'm at work/school when the health club is open. | 1 | 2 | 3 | 4 | 5 |
| 26. I spend too much time waiting for equipment or looking for available equipment when I workout at the health club. | 1 | 2 | 3 | 4 | 5 |
| 27. My health club's time limitations for using cardio equipment deter me from exercising regularly. | 1 | 2 | 3 | 4 | 5 |
| 28. I'd exercise more regularly if there was more equipment at my health club. | 1 | 2 | 3 | 4 | 5 |
| 29. I wish my health club had more social events. | 1 | 2 | 3 | 4 | 5 |
| 30. My health club's employees are courteous. | 1 | 2 | 3 | 4 | 5 |

31. Please explain which service or facility is missing at your health club that would have you more motivated to exercise regularly at the health club?

The following questions refer to you personally. Please respond in the spaces provided:

32. For how many years have you used health clubs for exercise? _____

33. Which description(s) most closely describes your typical workout (check all that apply)?

- Weight-training with free weights
 Weight-training with machines
 Aerobic exercise (treadmill, cycle, stairclimber, etc.)
 Aerobic class
 Sports (such as raquetball, basketball)
 Swimming
 Spinning class
 Martial arts
 Yoga

34. Do you feel comfortable using free weights (check one)?

_____ No _____ Somewhat _____ Yes

35. For how long do you usually work-out at the health club(check one)?

_____ <30 min. _____ 31 min.-1 hr. _____ >1 hr.

36. What time of day do you usually work-out (check one)?

_____ Morning _____ "Lunchtime" _____ Afternoon _____ Night _____ Weekend

37. How often do you work-out at your health club? About _____ times per week

38. Your gender? _____ Male _____ Female

39. Your age? _____

40. Your marital status? _____ Single _____ Married/Partnered _____ Other

41. What is your annual income (check one)?

_____ <\$25,000 _____ 25-\$49,999 _____ 50-\$100,000 _____ >\$100,000

For copy of results please call Chris 408.293.3577 or e-mail chris@hotmail.com THANK YOU.

PLEASE RETURN THE QUESTIONNAIRE BY DECEMBER 5, 1998. THANK YOU.

**Appendix C
Past Member Questionnaire**

Health Club Services and Facilities

This section contains statements which pertain to how you perceived the health club you discontinued your membership with. Please respond to the following statements by circling the number which most closely matches your level of agreement.

1 = Not at all 4 = Very much
2 = Very little 5 = Completely
3 = Moderately

	Not at all	I Agree			Completely
	1	2	3	4	5
1. My health club's hours were convenient.	1	2	3	4	5
2. I was motivated to work out because my health club was clean and modern.	1	2	3	4	5
3. My health club's equipment was in excellent condition.	1	2	3	4	5
4. I was motivated to work out because I enjoyed the atmosphere at my health club.	1	2	3	4	5
5. I enjoyed working out around other members.	1	2	3	4	5
6. The fitness staff's personalized guidance regarding weight-training helped me to exercise regularly.	1	2	3	4	5
7. I wished my health club had had a service for members to find workout partners.	1	2	3	4	5
8. I would have benefitted from more 1-on-1 attention from personal trainers/fitness staff at my health club.	1	2	3	4	5
9. I would have worked out at the health club more often if the personal trainers/fitness staff had always been available for assistance.	1	2	3	4	5
10. I would have exercised more if my health club had had incentive programs (like lotteries or tee-shirt prizes) to reward members for regular exercise.	1	2	3	4	5
11. I liked to work out when the health club was busy.	1	2	3	4	5
12. The exercise equipment at my health club was easy to use	1	2	3	4	5

- | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 13. The other members at my health club made it a pleasant environment for exercising. | 1 | 2 | 3 | 4 | 5 |
| 14. The personal training at my health club was inadequate. | 1 | 2 | 3 | 4 | 5 |
| 15. I skipped workouts at the health club because it was too crowded. | 1 | 2 | 3 | 4 | 5 |
| 16. I would have done weight training more regularly if there had been separate men's and women's areas. | 1 | 2 | 3 | 4 | 5 |
| 17. I wish there had been more group exercise opportunities at my health club. | 1 | 2 | 3 | 4 | 5 |
| 18. The equipment at my health club was logically organized. | 1 | 2 | 3 | 4 | 5 |
| 19. I had more motivation to exercise regularly as a result of joining my health club. | 1 | 2 | 3 | 4 | 5 |
| 20. I found it easy to fit workouts at the health club into my schedule. | 1 | 2 | 3 | 4 | 5 |
| 21. I used my health club to exercise because it offered a good variety of sports facilities. | 1 | 2 | 3 | 4 | 5 |
| 22. My health club was clean. | 1 | 2 | 3 | 4 | 5 |
| 23. I felt uncomfortable while weight training around the other members at my health club. | 1 | 2 | 3 | 4 | 5 |
| 24. I didn't exercise regularly because there weren't sufficient group exercise opportunities at my health club. | 1 | 2 | 3 | 4 | 5 |
| 25. I missed my workout at the health club because I was at work/school when the health club was open. | 1 | 2 | 3 | 4 | 5 |
| 26. I spent too much time waiting for equipment or looking for available equipment when I worked out at the health club. | 1 | 2 | 3 | 4 | 5 |
| 27. My health club's time limitations for using cardio equipment deterred me from exercising regularly. | 1 | 2 | 3 | 4 | 5 |
| 28. I would have exercised more regularly if there had been more equipment at my health club. | 1 | 2 | 3 | 4 | 5 |
| 29. I wish my health club had had more social events. | 1 | 2 | 3 | 4 | 5 |
| 30. My health club's employees were courteous. | 1 | 2 | 3 | 4 | 5 |

31. Please explain in the space below which service or facility was missing at your health club that would have had you more motivated to exercise regularly at the health club.

The following questions refer to you personally. Please respond in the spaces provided:

32. For how many years have you used health clubs for exercise? _____

33. Which description(s) most closely describes your typical workout (check all that apply)?

- _____ Weight-training with free weights
- _____ Weight-training with machines
- _____ Aerobic exercise (treadmill, cycle, stairclimber, etc.)
- _____ Aerobic class
- _____ Sports (such as raquetball, basketball)
- _____ Swimming
- _____ Spinning class
- _____ Martial arts
- _____ Yoga

34. Did you feel comfortable using free weights (check one)?

_____ No _____ Somewhat _____ Yes

35. For how long did you usually work-out at the health club (check one)?

_____ <30 min. _____ 31 min.-1 hr. _____ >1 hr.

36. What time of day did you usually work-out (check one)?

_____ Morning _____ "Lunchtime" _____ Afternoon _____ Night _____ Weekend

37. How often did you work-out at your health club? About _____ times per week

38. Your gender? _____ Male _____ Female

39. Your age? _____

40. Your marital status? _____ Single _____ Married/Partnered _____ Other

41. What is your annual income (check one)?

_____ <\$25,000 _____ 25-\$49,999 _____ 50-\$100,000 _____ >\$100,000

For copy of results please call Chris 408.293.3577 or e-mail chris@hotmail.com THANK YOU.

PLEASE RETURN THE QUESTIONNAIRE BY DECEMBER 5, 1998. THANK YOU.

Appendix D
Pilot Study Cover Letter

Dear Health Club Member:

Thank you for taking the time to read this letter. I humbly request your help for a study on health club member needs. The study is intended to determine gaps between health club member needs and the services and facilities health clubs provide. You can help by simply completing and returning the enclosed questionnaire.

At the end of the questionnaire there is my phone number and e-mail address if you would like to request a copy of the results. Hopefully, the results of the study will contribute to the possibility that all health clubs meet their members' needs.

Please understand your participation is completely voluntary and choosing NOT to participate in this study will have NO effects on your relations with San Jose State University nor any health club(s) you currently hold or have previously held membership(s).

The results of this study may be published but, any information that could result in your identification will remain entirely confidential. Reading this letter and returning the questionnaire constitutes your informed consent.

If you have any questions about this study please call me at (408) 293-3577. I will return all calls within 72 hours. If you have any questions or concerns about research subjects' rights please contact Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2480.

Please return the questionnaire by October 7, 1998. Thank you.

Sincerely,

Christiaan M. Peters
graduate student

Appendix E
Primary Study Cover Letter

Dear Health Club Member:

Thank you for taking the time to read this letter. I humbly request your help for a study on health club member needs. The study is intended to determine gaps between health club member needs and the services and facilities health clubs provide. You can help by simply completing and returning the enclosed questionnaire.

At the end of the questionnaire there is my phone number and e-mail address if you would like to request a copy of the results. Hopefully, the results of the study will contribute to the possibility that all health clubs meet their members' needs.

Please understand your participation is completely voluntary and choosing NOT to participate in this study will have NO effects on your relations with San Jose State University nor any health club(s) you currently hold or have previously held membership(s).

The results of this study may be published but, any information that could result in your identification will remain entirely confidential. Reading this letter and returning the questionnaire constitutes your informed consent.

If you have any questions about this study please call me at (408) 293-3577. I will return all calls within 72 hours. If you have any questions or concerns about research subjects' rights please contact Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2480.

Sincerely,

Christiaan M. Peters
graduate student

Appendix F
Past Member Cover Letter

November 5, 1998

Dear Former Health Club Member:

Thank you for taking the time to read this letter. You have been randomly selected for a study on health club member needs based on your PREVIOUS membership at a health club. Whether or not you are currently a health club member anywhere, I humbly request your participation now in terms of your PAST membership.

The study is intended to determine gaps between health club member needs and the facilities and services health clubs provide. You can help by simply completing and returning the enclosed questionnaire. At the end of the questionnaire you can indicate if you would like to be mailed the results of the study. Hopefully, the results of the study will contribute to the possibility that all health clubs meet their members' needs.

Please understand that your participation is completely voluntary and that choosing NOT to participate in this study will have NO effects on your relations with San Jose State University nor any health club(s) that you currently hold or have previously held membership(s).

The results of this study may be published but, any information that could result in your identification will remain entirely confidential.

If you have any questions about this study, please call me at (408) 293-3577. I will return all calls within 48 hours. If you have questions or concerns about research subjects' rights please contact Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2480.

Please complete and return the questionnaire by December 5, 1998.

Sincerely,

Christiaan M. Peters
graduate student

Appendix G
Health Club Manager Interview Questions

1. How long have you been in business?
2. What is your mission statement?
3. Who makes decisions regarding services, personnel and facility changes?
4. In what ways are members involved in club processes, decision-making?
5. What is the one thing you feel your members need that you cannot provide or have not as yet been able to provide?
6. What do you emphasize in programming and services?
7. Please describe your clientele.
8. To whom do you target marketing?
9. Who is expected to produce revenue?

Appendix H
Pilot Study Follow-up Mailing

October 7, 1998

To all participants:

Thank you for your responses. I have not received all the questionnaires back. If you have not yet done the questionnaire, please complete it and mail by Monday, October 12. Feel free to call me if you have any questions, (408) 293-3577. *Thank you* for your help.

Sincerely,

Christiaan M. Peters, grad student



Office of the Academic
Vice President
Associate Vice President
Graduate Studies and Research
One Washington Square
San Jose, CA 95192-0025
Voice: 408-924-2480
Fax: 408-924-2477
E-mail: gstudies@wahoo.sjsu.edu
<http://www.sjsu.edu>

Appendix I
Approval from Human Subjects Review Board

TO: Chris Peters
638 South 5th St.
San Jose, CA 95112

FROM: Serena W. Stanford *Serena W. Stanford*
AVP, Graduate Studies & Research

DATE: September 17, 1998

The Human Subjects-Institutional Review Board has approved
your request to use human subjects in the study entitled:

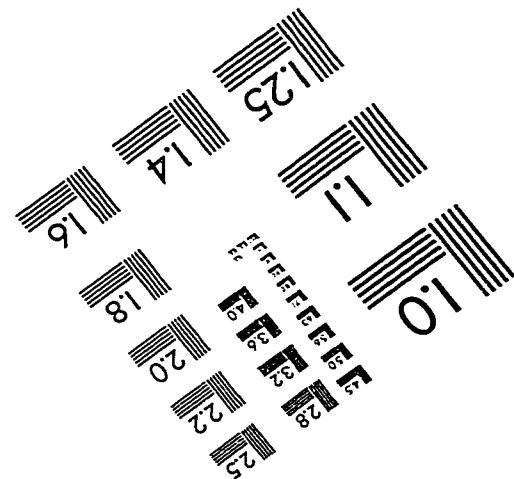
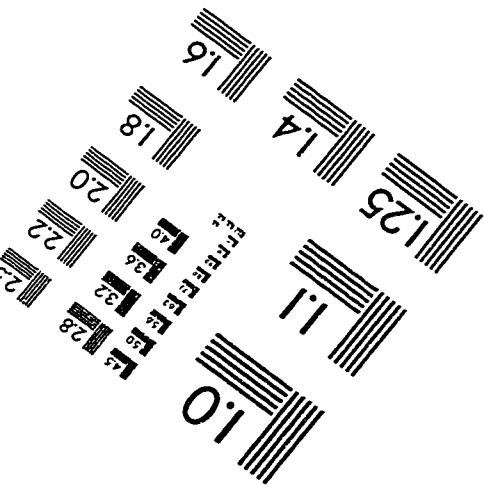
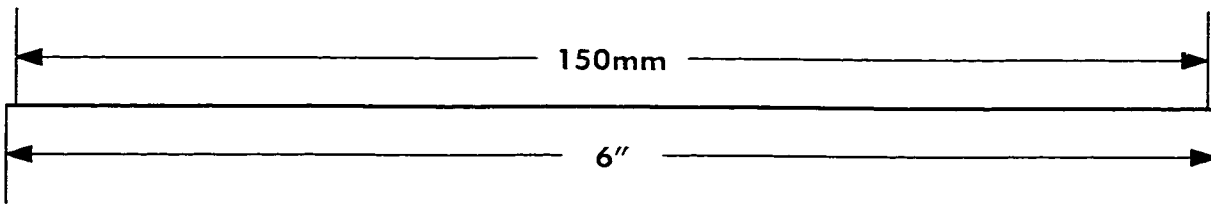
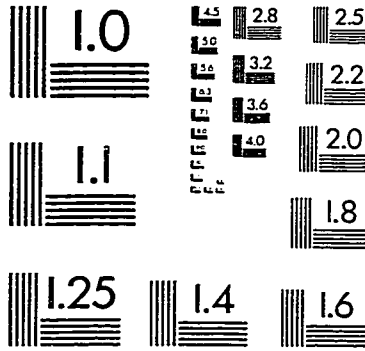
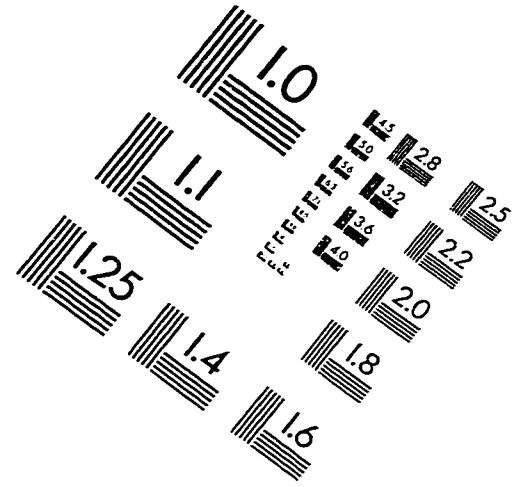
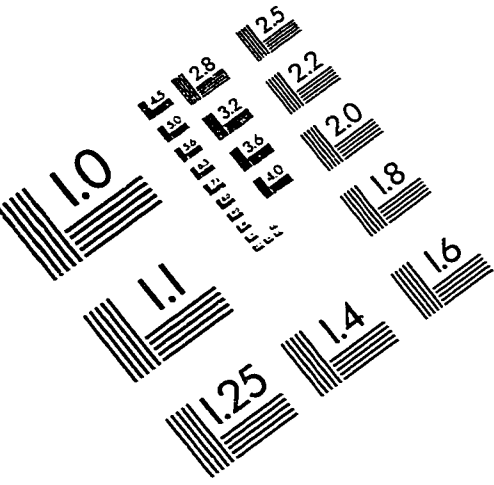
"Health Club Member Needs"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to any and all data that may be collected from the subjects. The Board's approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Serena Stanford, Ph.D., immediately. Injury includes but is not limited to bodily harm, psychological trauma and release of potentially damaging personal information.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at
(408) 924-2480.

IMAGE EVALUATION TEST TARGET (QA-3)



APPLIED IMAGE, Inc
1653 East Main Street
Rochester, NY 14609 USA
Phone: 716/482-0300
Fax: 716/288-5989

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