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Measuring Levels of Satisfaction, Commitment, and Constraints of Middle-Age Women Exercising in Fitness Centers

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Abstract

The purpose of the study is to determine the levels of satisfaction, commitment, and constraints for middle-age women exercising in fitness centers in the Cedar Valley. Members of five fitness centers participated by completing surveys regarding their opinions of their current fitness center. The data gathered from this study can be used by management of fitness centers in planning, marketing, and implementing programs and services.

Participants in the study (n=260) completed the survey containing four sections: (a) satisfaction dimensions of facility, services, staff, and social; (b) items measuring commitment to a service provider; (c) structural, interpersonal, and intrapersonal constraint items; and (d) demographic questions regarding age, income, education level, marital and working status.

Data analyses were conducted on all dimensions of satisfaction, commitment, and constraint. Demographic variables were compared across participants to determine the affect on each of the dependent variables.

The researcher determined that majority of participants are satisfied with their current exercise facility. Women members of Curves had statistically significantly higher means than other participants in the social bonding dimension of commitment. Constraints were not statistically significant predictors of participation, satisfaction, or commitment for males or females of any age group studied. Further research should be conducted on women and their fitness experiences as well as though who do not currently participate.

**MEASURING LEVELS OF SATISFACTION, COMMITMENT, AND CONSTRAINTS OF
MIDDLE-AGE WOMEN EXERCISING IN FITNESS CENTERS**

**An Abstract of a Research Project
Submitted
in Partial Fulfillment
of the Requirements for the Degree
Master of Arts**

**Melissa Dowd
University of Northern Iowa
May 2007**

ABSTRACT

The purpose of the study is to determine the levels of satisfaction, commitment, and constraints for middle-age women exercising in fitness centers in the Cedar Valley. Members of five fitness centers participated by completing surveys regarding their opinions of their current fitness center. The data gathered from this study can be used by management of fitness centers in planning, marketing, and implementing programs and services.

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This study by: Melissa Dowd

Entitled: Measuring Levels of Satisfaction, Commitment, and Constraints for Middle-Age Women Exercising in Fitness Centers

Has been approved as meeting the necessary requirements for the Degree of Master of Arts.

5-4-07

Date

Dr. Samuel Lankford, Chair

4 May 2007

Date

Chris Kowalski, Committee Member

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May 2005

CHAPTER I

INTRODUCTION

Purpose of Study

The purpose of the study was to determine the satisfaction, commitment, and constraint for middle-age women exercising in fitness centers in Cedar Falls and Waterloo. In the past five years the segment of women fitness participants has quadrupled with almost 20 national women's fitness center franchises in the United States (Curry, 2006). Despite the growing rate of women members at fitness centers, more than half of the women in the United States are sedentary (Henderson & Ainsworth, 2003). There is currently very little research on middle-age women and their physical activity choices. Fitness centers would benefit from identifying characteristics in the middle-age woman segment and learn how to attract and retain them as customers. Middle-age women often have constraints that affect their participation in physical activity including time, money, availability and quality of facilities, and personal skills and abilities. Women-only fitness centers have attempted to overcome constraints for women by providing facilities and programs designed to attract their specific segment. In order to determine the needs of middle-age women the variables satisfaction, commitment, and constraint are examined regarding participation for exercisers and their loyalty to a particular fitness center.

Midlife has been defined (Degges-White & Myers, 2006, 133) as the "development of a phase of life...due to increased longevity and the trend for a couple to spend as much as two decades or more together after the launching of their children". As a result middle-age women are now experiencing different types of life transitions compared to previous generations. In a study by Degges-White and Myers (2006), transitions that were commonly experienced by

middle-age women included noticing signs of aging, entering perimenopause, increased inner focus, entering or ending a committed relationship, voluntarily leaving a job, returning to school, entering/reentering the labor market, the loss of a parent, and/or children moving away from home.

Factors in Choosing Fitness Centers

One of the factors examined in this study is satisfaction of participants. Satisfaction levels should be measured to ensure customers will continue participation at a particular fitness center. Sawyer and Smith (as cited in Theodorakis, Alexandris, Rodriguez, & Sarmiento, 2004) researched turnover and their study showed that the average facility in the United States loses 40% of their customers each year. Satisfaction occurs “when outcomes exceed expectations” (Szymanski & Henard, 2001, 17). Satisfaction of a fitness facility is a combination of staff, the facility, programs, services, and meeting health, fitness, social, and intellectual needs. “Overall satisfaction is the consumer’s dis/satisfaction with the organization based on all encounters and experiences with that particular organization” (Guenzi & Pelloni, 2004, 369).

Commitment is the attachment to a specific brand and should be considered when researching fitness center members as well. Commitment is defined as the “recreationists’ attitude toward a specific service provider or their service offerings” (Kyle, Mowen, Absher, & Havitz, 2006, 79). Searle (as cited in Gahwiler & Havitz, 1998, 8) suggests that changing service providers is more difficult than changing brands for any product because “the changing of service providers involves quality and value considerations as well as decisions about the appropriateness of the fit between the individual and the particular service provider and about the fit between the activity selected and the needs of an individual” (Gahwiler & Havitz, 1998, 8). Benefits of committed patrons for fitness centers are stable revenues, positive reputation,

networking, enhancing member's quality of life, developing a sense of community, and increased participation rates (Iwasaki, 2004).

Middle-age women encounter constraints to leisure because of a lack of skills or ability, costs of participating, and social interactions. Constraints are defined as "reducing, inhibiting, or limiting expressed preference for leisure activities" (Shaw, 2001, 11) and as a "subset of reasons for not engaging in a particular behavior" (Samdahl & Jekubovich, 1997, 431). Research by Crawford and Godbey (as cited in Raymore, Godbey, Crawford, & von Eye, 1993) suggests that there are three categories of constraints to leisure: intrapersonal, interpersonal, and structural. Intrapersonal constraints are psychological states that effect leisure preferences but not the actual participation in a leisure activity. Interpersonal constraints affect preference and participation for activities that involve partners. Structural constraints are factors that affect leisure preference and participation such as financial resources, time, and opportunity. Typical constraints for people of all ages are costs of participating, time commitments, availability and quality of facilities, isolation, and personal skills and abilities. Constraints are modified by personal factors including family size and structure, gender, income, and ethnicity/race (Raymore, Godbey, Crawford, & von Eye, 1993).

For middle-age women time and cost constraints typically decline but other constraints may increase due to a lack of skills and ability or because of isolation. McGuire (as cited in Searle, Mactavish, & Brayley, 1993) suggested that as age increases leisure choices and control over leisure decreases. Through extensive research on leisure, constraints have been shown to be negotiable. Negotiation can occur by changing leisure activities or by adapting lifestyles to incorporate leisure activities (Jackson, 2000).

Women and Exercise

In a study by Speck and Harrell (2003), adult women that reported exercising the most frequently were white, educated, young, without young children, had low body mass index (BMI), high self-efficacy, and had few perceived barriers to exercise. Women were also found to be less active than men (Speck & Harrell, 2003). An accurate indicator of exercise is previous exercise experiences (Conn, Minor, & Burks, 2003). In a study by Conn et al. (2003), women 65 years or older were surveyed regarding their exercise participation. Their mean age of starting exercise was 62.52 years old, and the majority of women did not exercise at all in their twenties and thirties. Walking on a treadmill, fitness classes, water aerobics, and swimming were the common types of exercise that the women participated in. Most of the women had very limited experiences with exercise, relating back to their youth when women were not encouraged to participate in exercise. Research on women today has shown that most do not have a regular pattern of activity (Conn et al., 2003). Less than 30% of minority women engage in exercise for lengths of time to gain health benefits, and more than half of all women do not participate in exercise at all (Henderson & Alnsworth, 2003). Managers of fitness facilities need to be aware of these statistics to develop centers and plan classes that will encourage women to participate.

Statement of the Research Problem and Research Questions

The purpose of the study was to determine the satisfaction, commitment, and constraint for middle-age women exercising in fitness centers in Cedar Falls and Waterloo. There are two questions that this research is designed to answer:

- 1) Are there differences between middle-age women in co-ed facilities compared to women-only facilities?

2) What are the differences among age, gender, education, income, and marital status in satisfaction levels, commitment, and constraints at different types of fitness centers in the Cedar Valley?

Delimitations of the Study

1. The instrument that was used contained commitment, satisfaction, and constraint items.
2. The participants were chosen through systematic sampling at random dates and times.
3. The fitness centers chosen were the Cedar Falls Recreation Center, the Wellness Recreation Center (WRC) at the University of Northern Iowa, Anytime Fitness, Curves in Cedar Falls, Iowa and the YMCA in Waterloo, Iowa.

Limitations of the Study

1. The survey did not question ethnicity and may be lacking important information on the differences between women and men of differing ethnic backgrounds.
2. The research was conducted in Cedar Falls and Waterloo, Iowa and the information obtained may not be generalized to other populations.
3. The research was conducted during a two week period.

Assumptions

1. The respondents were honest when answering the survey.
2. The respondents have adequate experience in the fitness center to answer the survey in a complete manner.

Significance of Study

Understanding the levels of commitment of women, specifically middle-aged women have not been studied to date. Importantly, managers of fitness centers may be better able to plan and implement programs for this growing market segment. In addition, the data collected on satisfaction with services will inform managers on facilities, services, staff, and social interaction aspects of their operations. Finally, data on constraints will provide insight on how to minimize or remove barriers to participation. Given the rising age demographic in the country, the study is both timely and will add to the literature.

Definitions of Terms

Commitment: “recreationists’ attitude toward a specific service provider or their service offerings” (Kyle et al., 2006, 79).

Constraint: “reducing, inhibiting, or limiting expressed preference for leisure activities” (Shaw, 1994, 11), “subset of reasons for not engaging in a particular behavior” (Samdahl & Jekubovich, 1997, 431).

Involvement: “an unobservable state of motivation, arousal or interest toward a recreational activity or associated product”, “evoked by a particular stimulus or situation” (Iwasaki, 2004, 1).

Middle-age: “development of a phase of life...due to increased longevity and the trend for a couple to spend as much as two decades or more together after the launching of their children” (Degges-White & Meyers, 2006, 133).

Satisfaction: “when outcomes exceed expectations” (Szymanski & Henard, 2001, 17), “overall satisfaction is the consumer’s dis/satisfaction with the organization based on all encounters and experiences with that particular organization” (Guenzi & Pelloni, 2004, 369).

CHAPTER II

LITERATURE REVIEW

The purpose of the study was to determine the satisfaction, commitment, and constraints for middle-age women exercising in fitness centers in Cedar Falls and Waterloo. Satisfaction, commitment, and constraints can be either reasons or deterrents for participation at a fitness center. These factors influence management decisions and actions. If fitness center managers are aware how their customers feel about their facility they will be able to increase their member base and their profits.

Satisfaction can be defined as a “postpurchase evaluation of product quality given prepurchase expectations” (Anderson & Sullivan, 2001, 126). Consumers with previous experiences in other fitness centers compare all aspects of an organization and then determine their level of satisfaction. Bitner and Hubbert (as cited in Guenzi and Pelloni, 2004, 369) described overall satisfaction as “the consumer’s dis/satisfaction with the organization based on all encounters and experiences with that particular organization”. Because each member of a fitness center has a standard for quality of the facility, staff, programs, and benefits received, managers must deliver on customers’ expectations in order to retain them as members. A statistic from Reichheld and Teal (as cited in Ganesh, Arnold, and Reynolds, 2000) suggested that corporations in the United States lose half of their customers in five years. Turnover is costly for organizations and can be prevented by responding to customers’ needs.

While involvement measures attachment to a specific activity, commitment measures the attachment to a service provider. Shamir (as cited in Gahwiler and Havitz, 1998, 8) suggests that commitment to a relationship involves “freedom of choice, substantial knowledge about one’s choice, self-identity, and positive valuing of that identity”. Commitment has been identified in

many studies as forming after a preference for specific leisure activities are developed.

Commitment may lead to loyalty to an organization and consequently increase profits. The relationship between satisfaction and commitment has not been widely researched although they are separately studied regarding fitness facilities.

Constraints to leisure have been researched since the late 1960's. Authors focus on different categories of constraints including time, money, facilities, transportation, access, skills and abilities. Constraint can be defined as "a subset of reasons for not engaging in a particular behavior" (Samdahl and Jekubovich, 1997, 431). Constraints were grouped into levels of constraints (Crawford et al., 1991) that people must overcome in order to participate; intrapersonal, interpersonal, and structural. Intrapersonal constraints occur because of psychological issues such as stress, depression, anxiety, or perceived skill. This type of constraint affects leisure preferences but not actual participation in an activity (Raymore et al., 1993). Interpersonal constraints affect participant's preference and involvement in leisure activities with others. Structural constraints are any problem that exists that deters participation in a leisure activity such as money, time, and opportunity (Raymore et al., 1993).

Satisfaction

Anderson and Sullivan (1993) researched satisfaction in "The Antecedents and Consequences of Customer Satisfaction for Firms". The purpose of their study was to investigate the antecedents and behavioral consequences of satisfaction. The study was based on the expectancy-disconfirmation framework, assimilation theory, and the Bayesian approach. The expectancy-disconfirmation framework by Oliver (as cited in Anderson and Sullivan, 1993) consists of buyers forming expectations of a service before purchase, consumption of the service

has a level of quality that is compared to expected quality, perceived quality may confirm or disconfirm expectations before purchase, and customer satisfaction increases or decreases from expectations. The study was also based on Sherif and Hovland's work on assimilation theory, (as cited in Anderson and Sullivan, 1993) if the difference between expectations and quality is small perceived quality will move closer to expectations. The Bayesian approach by Berger (1985) determines the effect of service providers consistently providing high levels of satisfaction on perceived quality, satisfaction, and retention. Anderson and Sullivan (1993) utilized a computer-aided telephone survey to assess satisfaction, repurchase intentions, expectations, perceived quality, degree of confirmation and disconfirmation, and ease of evaluating quality. 22,300 customers of the 57 largest companies in Sweden made up a nationally representative sample. The findings suggest that satisfaction is positively influenced by perceived quality, repurchase intentions are positively influenced by satisfaction, and disconfirmation is positively influenced by perceived quality. Conclusions of the study were that it is more important to manage satisfaction when customers are familiar with a product, and quality that is less than expected has a greater impact on satisfaction than quality that is higher than the expected level. Anderson and Sullivan recommended further research should focus on resource allocation for achieving high levels of customer satisfaction and retention.

Ganesh, Arnold, and Reynolds (2000) researched loyalty and satisfaction with service providers in "Understanding the Customer Base of Service Providers: an Examination of the Differences Between Switchers and Stayers". The purpose of their study was to determine whether groups of customers differ in satisfaction provided by their current firm in their level of involvement and loyalty toward their service provider. The study was based on Oliver's expectancy-disconfirmation paradigm (as cited in Ganesh, Arnold, and Reynolds, 2000),

consumers judge satisfaction by comparing expectations with perceived service performance and Thibaut and Kelly's comparison-level theory (as cited in Ganesh, Arnolds, and Reynolds, 2000) using a standard to compare the satisfaction of a relationship with a product or service. Ganesh, Arnolds, and Reynolds (2000) designed an instrument to collect information on satisfaction, purchase and ego involvement, loyalty, demographic characteristics, and use of banking services. Telephone interviews were conducted for approximately 12 minutes on a randomly sampled population from a local telephone directory of a metropolitan area in southeast United States. ANOVA was used to compare means on overall satisfaction, factor analyses were used for involvement and loyalty items, and individual discriminant analyses were used on the satisfaction, involvement, and loyalty dimensions. Ganesh and Reynolds (2000) found that the dissatisfied switchers had higher levels of purchase involvement than satisfied switchers, dissatisfied switchers were more loyal to their current service provider than satisfied switchers and stayers, and the mean satisfaction level decreases from the dissatisfied switchers to stayers to the satisfied switchers. A second study, using the same methodology, was conducted in order to determine the effects of prior switches from provider on current satisfaction and a time frame in which these effects take place. Conclusions from both of the studies suggest that dissatisfied switchers are the most satisfied and loyal regarding their service provider, and the most recent switching experience is the most important for predicting customer satisfaction. Recommendations for managers are to segment their customers by the three groups used in this study and market to them accordingly. Further research should include customer's levels of commitment in the three groups and customers who switch multiple times due to dissatisfaction.

Szymanski and Henard (2001) researched attributes of customer satisfaction in "Customer Satisfaction: A Meta-analysis of the Empirical Evidence". The purpose of their study

was to advance understanding of satisfaction by conducting a meta-analysis of satisfaction findings. The study was based on antecedents, consequences, and moderators of customer satisfaction by Oliver's work on the conceptual model of customer satisfaction (as cited in Szymanski and Henard, 2001). The authors developed a database of satisfaction findings from empirical studies that used customer satisfaction as a measured variable. Szymanski and Henard (2001) found the correlations coefficient and described the correlations in terms of range, direction, statistical significance, and sample size. A univariate analysis was conducted to show central tendencies of the individual correlates with customer satisfaction, and the statistically significant moderators of satisfaction were identified. The findings suggested a positive relationship between customer satisfaction and repeat purchasing, and the mean correlations for the antecedents of satisfaction are all positive and statistically significant. Implications for managers include designing programs around customer disconfirmation levels regarding performance and expectations. Further research should be conducted on expectation formation and discovering the attributes that comprise satisfaction.

Theodorakis et al. (2004) researched customer satisfaction in "Measuring Customer Satisfaction in the Context of Health Clubs in Portugal". The purpose of the study was to test satisfaction in health clubs in Portugal and to investigate differences in demographics in the need-satisfaction dimensions. The study was based on the Mannell's need-satisfaction approach (as cited in Theodorakis et al., 2004), meeting needs or motives through participation. Authors utilized an instrument that measured six need-satisfaction dimensions in a 24 item scale developed for health and fitness clubs by Alexandris in Portugal (as cited in Theodorakis et al., 2004). The sample included 426 members of five fitness clubs in Portugal. Descriptive statistics

were used to evaluate satisfaction and t-tests and ANOVA's were used to test demographic differences. High scores were obtained for the satisfaction dimensions, and statistically significant differences were found between women and men. Females were less satisfied than males overall. The more educated groups were less satisfied in the facilities/ services and social/intellectual dimensions. Future research should include more dimensions of satisfaction and examining the relationship between satisfaction, service quality, and loyalty.

Guenzi and Pelloni (2004) researched customer satisfaction and loyalty in "The Impact of Interpersonal Relationships on Customer Satisfaction and Loyalty to the Service Provider". The purpose of their study was to find the impact of interpersonal relationships on customer satisfaction and loyalty towards an organization. The study was based on Thibaut and Kelly's (1959) work on interpersonal interactions between customers and employees or other customers, concluding that loyalty and satisfaction are related to these interactions. Authors utilized an instrument that measured relationship closeness with employees and other customers, customer satisfaction, interpersonal loyalty, and customer loyalty. A nine point Likert-type scale was used. Correlation analysis, multiple regression, and five regressions analyses were done. A medium-sized fitness center in northern Italy received 253 self-administered completed questionnaires by participants that were randomly sampled without replacement. Findings suggested that customer satisfaction was influenced by customer-to-employee relationships but not by customer-to-customer relationships, behavioral loyalty and loyalty intention are influenced by customer-to-employee relationships, and customer-to-customer relationships are not related to satisfaction, behavioral loyalty or loyalty intentions. Implications for managers are to create personal relationships between employees and their customers and maximize the amount of interactions between them.

Gustafsson, Johnson, and Roos (2005) researched customer satisfaction in “The Effects of Customer Satisfaction, Relationship Commitment Dimensions, and Triggers on Customer Retention”. The purpose of the study was to determine the effect of situational and reactional triggers on the satisfaction-retention relationship. The study was based on affective and calculative commitment by Fullerton and Roos, Edvardson, and Gustafsson’s (2004) work with situational and reactional triggers (as cited in Gustafsson, Johnson, and Roos, 2005). Gustafsson et al. (2004) utilized a periodic survey that measured participants who had switched companies, perceptions of themselves as a customer, a rating of the service in question, and satisfaction statements based on a ten point scale. The sample was 2734 participants from a large Swedish telecommunications company that included phone services, modem-based Internet service, and broadband Internet service. Principal components analyses were used to operationalize variables from the survey measures. Churn, the opposite of retention, was measured through ordinary least squares regression to identify the total amount of churn and the differences in the types of services studied. Churn decreased with satisfaction for the fixed-phone customers. Calculative commitment was a significant predictor of churn while affective commitment was not. The three predictors of retention are customer satisfaction and affective and calculative commitment. Further research should be conducted on the separation of satisfaction from affective commitment.

Homburg, Koschate, and Hoyer (2006) researched customer satisfaction in “The Role of Cognition and Affect in the Formation of Customer Satisfaction: A Dynamic Perspective”. The purpose of the study was to determine whether cognitive and affective factors could predict customer satisfaction. The study was based on Forgas’ affect infusion model (as cited in Homburg, Koschate, and Hoyer, 2006) in which affective information

becomes part of the decision making process and affects the outcome. Authors utilized an instrument that measured cognition, affect, and satisfaction using Likert-type scales. The participants were 157 marketing students enrolled in a graduate level pricing class at a German university. They used a new CD-ROM tutorial and were asked questions regarding the material. Regression analyses were performed on the data obtained. The results suggested that with an increase in the number of experiences the influence of cognitive factors increase and affective factors decrease. Implications for businesses are that affect is important in the beginning stages of decision making when customers have less knowledge about the product. Further research may include adding negative affect as well as positive affect and using products that are low-involvement to measure satisfaction.

Commitment

Buchanan (1985) researched types of commitment in “Commitment and Leisure Behavior: A Theoretical Perspective”. The purpose of the study was to identify the relationship between commitment and leisure behavior. Committed behavior has three components: a) “consistent or focused behavior and implies a rejection of alternative behaviors”, b) “a function of side bets”, and c) “affective attachment to the goals and values of a role, an activity, or an organization” (Buchanan, 1985, 403). Side bets “occur when something of value is staked on behavioral consistency” or when someone participates in an activity they are giving up opportunities to participate in other activities (Buchanan, 1985, 403). Affective attachment consists of levels of continuance, cohesion, and control. Continuance occurs because the cost of discontinuing the behavior is greater than maintaining the behavior, cohesion is the commitment of an individual because of group ties and belonging, and control, the highest level of affective

attachment, is determined by values and norms of the participants within a group. The remainder of the article describes theories that are related to commitment: a) recreation specialization, b) leisure social worlds, c) recreation substitution, and d) recreation conflict. Recreation specialization as researched by Bryan (as cited in Buchanan, 1985), is a component of commitment because participants that specialize in an activity are typically highly committed to that activity. Participating in an activity may turn into a “career” or experiencing increased skills, attitudes, and experiences. Commitment has not been proven as a statistically significant component of specialization. Leisure social worlds are concepts containing people, spaces, events, organizations and a fundamental dimension of these social worlds is commitment. Recreation substitution theory states that participants who are committed to an activity or facility believe that there are few substitutes (Buchanan, 1985). When commitment increases for someone they are more likely to adapt their activity than to change to another activity. Recreation conflict occurs when participants committed to activities have defined role expectations. Commitment has been operationalized in the following three ways; amount of past experience, variables indicating the importance of participation in lifestyle, and investment in a behavior or activity. Conclusions of the article define commitment as the reason for consistently participating in a behavior after a first experience. Further research should be done to operationalize commitment, and to determine how commitment influences behavior.

Gahwiler and Havitz (1998) researched participant’s involvement with activities and recreation agencies in “Toward a Relational Understanding of Leisure Social Worlds, Involvement, Psychological Commitment, and Behavioral Loyalty”. The purpose of the study was to examine the following constructs related to loyalty: a) leisure social worlds, b) leisure

activity involvement, c) psychological commitment to activity, and d) psychological commitment to service provider. The study was based on social worlds, involvement, and psychological commitment. Social worlds are groups of people organized by interest and involvement in activities. Involvement has been identified as “leading to commitment through a greater perception of attribute differences, perception of product importance, and greater commitment to brand choice” (Iwasaki, 2004, 1). The four dimensions of psychological commitment researched in this study were resistance, volition, cognitive complexity, and position involvement. The authors utilized a survey containing a social subworld segmentation scale, Laurent and Kepferer’s (1985) Consumer Involvement Profile (CIP), Pritchard’s (1992) Psychological Commitment Instrument (PCI) in product and brand format (as cited in Gahwiler and Havitz, 1998), and measures of behavioral aspects of participation. Participants consisted of a random sample of members of the YMCA. They were split into groups of 10 or more years as a member, and between 13-24 months of membership. There were 145 participants randomly sampled from each group along with an additional 10 YMCA members who had been interviewed previously, with a response rate of 62%. The principal components analysis was used to measure the factor structure of the CIP and PCI scales as well as ANOVA and chi-square tests for testing the hypotheses. Findings of the study showed that there were significant differences between groups in two dimensions of involvement, attraction and sign, and members of highly immersed social worlds will have higher psychological commitment, brand loyalty, and more leisure time at a facility than members of less immersed social worlds. Psychological commitment to an activity was found to be positively related to psychological commitment to a service provider. Further research should include members ranging in length of

membership and including new members in a longitudinal study to discover changes in their involvement, commitment, and brand loyalty.

Pritchard, Havitz, and Howard (1999) researched commitment in “Analyzing the Commitment-Loyalty Link in Service Contexts”. The purpose of their study was to examine how commitment influences loyalty. The study was based on the following antecedents of commitment: a) informational processes, b) identification processes, and c) volitional processes, and the mediating-effects-model (M-E-M) and direct-effects-model (D-E-M) by Crosby and Taylor (as cited in Pritchard, Havitz and Howard, 1999). Authors developed a psychological commitment instrument based on procedures from Churchill (as cited in Pritchard, Havitz, and Howard, 1999) that contained items on resistance to change and antecedents to commitment. Two convenience samples of consumers were combined, (n=681), to answer surveys about United Airlines and Hilton hotels. Path analyses were conducted to examine the fit of the M-E-M and D-E-M models. Results suggested the antecedents have a significant effect on resistance to change, and resistance to change has a significant effect on loyalty. Consumer commitment is determined by resistance to change: how consumer identify with values and self-images associated with the choice, motivated to seek informational complexity and consistency behind their choice, and ability to initiate choices that are meaningful. Implications for managers include maximizing the antecedents of commitment. Further research can be done on different measurements of loyalty including duration, frequency, intensity, and sequence.

Iwasaki (2004) researched commitment in “Examining Relationships Between Leisure Involvement, Psychological Commitment and Loyalty to a Recreation Agency”. The purpose of the study was to examine effects of psychological commitment on the relationship between

involvement and loyalty to a recreation agency. The study was based on Iwasaki and Havitz's (1998) model consisting of the mediating role of psychological commitment in the relationships between involvement and behavioral loyalty and the moderating effects of personal and social-situational factors on those relationships. Authors utilized an instrument that measured leisure involvement with Laurent and Kapferer's (1985) Consumer Involvement Profile (CIP) scale, psychological commitment with Pritchard's (1999) Psychological Commitment Instrument (PCI), behavioral loyalty by frequency of attendance and proportion of participation, and personal and social moderators by Carroll and Alexandrie's Strength of Motivation Scale (as cited in Iwasaki, 2004). There were 296 participants in the study who were users of fitness facilities at one of two recreation agencies in a large western city in Canada. Descriptive statistics were used to better understand relationships between key constructs. Structural equation modeling was used to test the Fully Mediated Models against the Direct Effects Models I and II. The findings of the study suggested that the positive relationship between involvement and commitment is stronger for customers who are more skilled, motivated, and have strong social support regarding their leisure activities. Implications for managers include developing marketing strategies according to involvement, psychological commitment, and loyalty profiles. Further research should be done on reasons why individuals do not become participants at recreation agencies as well as the importance in antecedents of involvement.

Kyle and Mowen (2005) researched commitment in "An Examination of the Leisure Involvement-Agency Commitment Relationship". The purpose of the study was to examine the relationship between involvement and commitment in a public leisure service provider. The study was based on Dimanche, Havitz & Howard's three dimensions of involvement (as cited in

Kyle and Mowen, 2005): attraction, centrality, and self-expression, as well as commitment from Pritchard et al. (1999) encompassing volitional choice, cognitive complexity, and position involvement. Authors utilized an instrument that measured involvement from the McIntyre and Pigram's (1992) involvement scale, and adapted items from a scale by Williams and Roggenbuck (1989) on place attachment and Cruen, Sommers, and Acito's (2000) organizational commitment scale (as cited in Kyle and Mowen, 2005). Participants were randomly drawn from a subscriber database from the Cleveland Metroparks' *Emerald Necklace* Publication and asked to complete a survey. There was a 57.3% response rate after an initial mailing, postcard reminder, and second mailing. Analyses were conducted using covariance structure analysis and indicators of model fit. Commitment to Cleveland Metroparks was influenced by the organization's ability to create leisure experiences for their customers. Place dependence was positively influenced by attraction and as importance and pleasure increased so did customers dependence on the facility. Future research should include factors that influence the process of involvement with activities leading to service provider preferences.

Hess and Story (2005) researched customer relationship management (CRM) in "Trust-based Commitment: Multidimensional Consumer-Brand Relationships". The purpose of the study was to propose and test a multi-dimensional model of relationship commitment. The study was based on (CRM), focusing on retaining customers, and the trust-based commitment model. The trust-based commitment model consists of satisfaction, trust, personal and functional connection, and commitment. Antecedent influences affect trust and satisfaction of an organization which in turn affect commitment dimensions of personal and functional connections. The participants were 4,000 customers from 20 fast food restaurant brands and 21

retail brands. These participants completed online surveys containing questions regarding behavior, attitudes, and demographics. Factors to measure trust, satisfaction, functional and personal connections were included in the survey. Analysis included isolating groups of items to represent constructs of trust, satisfaction, and commitment. Trust and satisfaction were strongly correlated, satisfaction primarily contributed to functional connections rather than personal connections, and trust was highly correlated to both functional and personal connections. Commitment was significantly correlated with personal and functional connections. Trust and personal connections have a stronger influence on commitment to a brand. Further research should be focused on examining factors that may affect relationships between customers and service providers.

Kyle et al. (2006) researched agency commitment in "Commitment to Public Leisure Service Providers: A Conceptual and Psychometric Analysis". The purpose of the study was to test a previous studies' concept of agency commitment examining recreationists attachment to place and agency trust. Attitude theory by Zimbardo, Ebbesen, and Maslach (as cited in Kyle et al., 2006) measured three areas of recreationists' commitment to service providers through affect, cognition, and behavioral intentions. The concept of social marketing is also used in the study describing the use of marketing techniques to influence groups to change a behavior for the benefit of others. The definition of agency commitment used for the study consisted of five dimensions: a) place dependence, b) social bonding, c) affective attachment, d) place identity, and e) value congruence. The instrument used contained items to measure humans' attachment to place by Williams and Roggenbuck (1989) that measured place bonding, place identity, place dependence, and affective attachment. The trust component was taken from items developed by

Winter, Palucki, and Burkhardt and Borrie, Christensen, Watson, Miller and McCollum (as cited in Kyle et al., 2006) to measure perceived congruence between the service provider and participants' goals, objectives, and values. Participants were from two separate public leisure services: Chattahoochee National Forest (CNF) in Georgia and Cleveland Metroparks magazine subscribers. In the CNF study, sampling was taken at eight sites over 60 days through interviews, followed by mailed surveys and final telephone surveys for 1,311 participants. The Cleveland Metroparks Study randomly drew 1,500 names from the subscriber database and ended with 860 completed surveys. Analyses included a null model assuming that the dimensions of commitment are unrelated, a one-factor model which considers agency commitment in a single dimension, an uncorrelated factors model, a model analyzing agency commitment in terms of five correlated factors, and finally a hierarchical model was conducted. The participants from the Cleveland Metroparks study had stronger commitment to their agency than the participants from CNF. For the CNF participants the items most commonly found were value congruence, and affective attachment was the concept most commonly found for Cleveland Metroparks study. The concept of social bonding was not a strong factor for commitment in either study. The first-order correlated factor model that contained five dimensions of commitment was found to be the most relevant for this study. Further research can be done in private leisure service contexts to expand knowledge of commitment to agencies.

Constraints

Jackson (1993) researched constrained leisure in "Recognizing Patterns of Leisure Constraints: Results from Alternative Analyses". The purpose of the study was to identify

combinations of constraints using a cluster analysis, to show how people experience and respond to constraints. The study was based on the constraints found from 28 previous studies published after 1980 and the factor analysis technique used in those studies. Jackson (1993) used a mail-out survey for 7699 stratified random sample households in Alberta, Canada. After two mailings and a postcard reminder there was a 57.5% response rate, 4,044 surveys. The survey contained questions on constrained leisure, measures of constraints, and demographic variables. A factor analysis was used first to determine dimensions of constraints, cluster analysis was used to group participants together by constraint types, and a one-way analysis of variance showed relationships between constraints, age, and activities. Results showed six clusters; a) time; b) time, costs and accessibility; c) costs; d) costs, facilities, and awareness; e) accessibility and awareness; and f) relative unconstrained. Family commitments as a constraint were the strongest for ages 29 to 43. Physical abilities constraint was significantly higher for participants above the age of 50. Time commitments varied the most among constraint types and were rated most important by middle-age groups. Overall constraints declined with age which was statistically significant, but not reported as being meaningful for practical purposes. The conclusion from the study suggested that there are differences among groups of participants in levels of constraints. Further research may be conducted on combinations of constraints that have not yet been connected.

Raymore et al. (1993) researched three categories of constraints in "Nature and Process of Leisure Constraints: An Empirical Test". The purpose of the study was to determine whether *the three categories of constraints; interpersonal, intrapersonal, and structural constraints from Crawford et al. (1991) hierarchy*. Authors based the study on Crawford et al. (1991) model of

hierarchy of constraints in which intrapersonal constraints are negotiated first followed by interpersonal and structural constraints. Participants were 363 high school students from three high schools in a suburb of Toronto, Ontario. The survey contained 21 questions on constraints to leisure activities using a Likert-type scale. A factor analysis established the three categories of constraints and a model evaluation inspected overall-fit indices and chi-squared values. Results were an overall constraint mean of 53.441 with a standard deviation of 5.979. The range was from 30 to 67 out of a possible score of 21 to 84, low scores equaling low level of perceived constraint. The hierarchy (Crawford et al., 1991) was supported in the study. Participants were likely to have high scores for all constraints or low scores for all constraints. Participants who were involved in more activities had less constrained leisure than those that were involved in few activities. Further research should study real constraints as opposed to perceived constraints and larger numbers of interpersonal, intrapersonal, and structural constraints should be incorporated into studies.

Henderson (1994) researched how leisure is influenced by constraints for women in “Broadening an Understanding of Women, Gender, and Leisure”. The purpose of the study was to interpret research on women and leisure. The main theory used in the study was the gendered meaning of leisure by Shaw (as cited in Henderson, 1994). The equation of gendered meanings of leisure is equal to the sum of values/entitlement, benefits/outcomes, containers/opportunities, negotiated constraints, and life situation. When women feel they are entitled to leisure activities and those activities are in line with their values there is an initial meaning of leisure established. Benefits of leisure for women include having control over an aspect of their life, elimination of gender roles, enjoyment, and pleasure. Containers include activities, social settings, and physical

locations. When there are more opportunities for leisure and larger containers with fewer constraints, women will have more access to leisure time. Constraints for leisure are any obstacle that restricts someone from participating in an activity. Jackson, Crawford, and Godbey's research (as cited in Henderson, 1994) has suggested that negotiating is the key to understanding constraints. Everyone has different life situations that affect their leisure opportunities. Research may need to be done on the differences between groups of women as well as between women and men.

Shaw (1994) researched constraints on women's leisure in "Gender, Leisure, and Constraint: Towards a Framework for the Analysis of Women's Leisure". The purpose of the study was to examine theories and to connect them in a broader framework. Theories used in the study were constraints on women's leisure, "leisure as constraining", and "leisure as resistance". Types of constraints on women's leisure include temporal constraints, economic constraints, and lack of opportunities or facilities. Research has shown that women are more constrained compared to men because of family commitments and household obligations. Antecedent constraints, those that reduce or limit preference for leisure activities, may be more common for women because they change their preferences to fit their lifestyles. Body image issues, an antecedent constraint, have been shown to constrain participation and enjoyment of leisure. Leisure as constraining theory states that participation in certain activities influences women's lives and their image to others. The activities that emphasize beauty, physical attractiveness, and body shape have been more acceptable for women to participate in. Leisure facilities may be constraining women in the choices of activities provided. The "leisure as resistance" theory changes focus by using leisure to resist oppressive gender roles. The resistance is against

institutional power and emphasizes personal choice. Empowerment may lead to increased enjoyment and involvement in leisure activities. Conclusions suggested that leisure experiences are not always positive or negative, individual women will have different experiences. Some women are constrained in their limit to access to leisure activities and in their ability to express preferences for specific activities.

Harrington and Dawson (1995) researched constraints on women's leisure in "Who has it best? Women's Labor Force Participation, Perceptions of Leisure and Constraints to Enjoyment of Leisure". The purpose of the study was to determine whether women of certain employment statuses have less constraints to leisure than others. The study was based on Green, Hebron, and Woodward and Henderson's work (as cited in Harrington and Dawson, 1995) on full time working women and their leisure opportunities. The instrument used in the study measured meanings of leisure, subjective experience of leisure, positive and negative items and constraints measured in 20 categories containing 3 items by answering true or false. Sampling was done in Ontario by stratification of municipalities, and 9,330 questionnaires were mailed. The response rate was 22.2% or 1,739 participants. A univariate analysis of variance was used to investigate the influence of employment status on leisure meanings, experiences, and constraints followed by three multivariate analyses. The most common response for leisure meanings was self-gratification, relaxation, and personal freedom, while the least mentioned leisure meaning was achievement. Leisure meanings were not influenced by employment status of the women surveyed, while subjective experiences and constraints were statistically different according to employment status. Women's experiences in leisure included feelings of competence, security, and playfulness and few experience assertiveness. The most common constraints reported were

responsibilities, fatigue, insufficient time, lack of skill, guilt, and lack of money. Women not working were constrained most by poor self image, lack of skill, lack of opportunity, fear, and personal values. Conclusions suggest that labor force participation does affect women's experience of leisure and constraints to leisure. Further research should be conducted on these variables in order to better understand their impact on women's leisure.

Hultsman (1995) researched dimensions of constraints in "Recognizing Patterns of Leisure Constraints: An extension of the Exploration of Dimensionality". The purpose of the study was to examine Jackson's (1993) finding of constraint dimensions by using a multidimensional scaling (MDS) method. The study was based on Jackson's (1993) six dimensions of constraints from eight existing studies; a) accessibility, b) social isolation, c) personal reasons, d) costs, e) time commitments, and f) facilities. The dimensionality of constraints was used because of reliability issues when studying individual constraints. A nine page questionnaire was mailed comparing participants' perceptions of 18 leisure constraints and their similarities. Thirty-two adults in Phoenix volunteered to participate and were sent a questionnaire in the mail. The MDS focused on similarities and differences between items through a seven point scale ranging from "very similar" to "very different". The dimensions with the strongest similarities were facilities, overcrowded facilities or areas and recreation facilities/areas poorly maintained, and cost, cost of equipment, materials, and supplies and admission, rental fees, and other charges. The individual constraint related closest to other constraints was "no opportunity to participate near home". There was a moderate association between work and leisure activities, and a weak association between work and family commitments. Women were more likely to lose interest because of participation in activities and

overcrowded facilities than men. Three categories of constraints, cost, personal reasons, and facilities were found. The personal reasons category had the strongest connection between individual constraints.

Samdahl and Jekubovich (1997) researched factors that influence leisure choices in “A Critique of Leisure Constraints: Comparative Analyses and Understandings”. The purpose of the study was to determine whether leisure constraints were a factor in people’s daily leisure experiences. The research used in this study was constraints theory, how leisure constraints explain trends in leisure experiences and preferences. In-depth interviews were conducted to identify factors that shaped leisure experiences. There were 88 volunteer participants from a medium-sized town in the Pacific Northwest. The study used a convenience sample to recruit participants through newspaper advertisements and word-of-mouth. The first analysis found data similar to (Crawford et al., 1991) in categories of structural, interpersonal, and intrapersonal constraints. The results from the first analysis showed that structural constraints altered leisure activity but did not stop participation from occurring, interpersonal constraints were common because of social ties, and intrapersonal constraints were discussed more often than anticipated. The second analysis was a constant comparative analysis to identify themes of factors influencing leisure. Four themes were found: a) making time for self, b) coordinating time with others, c) compromising on activity, and d) the significance of sharing. Results suggest that people most commonly choose to engage in leisure activities for social purposes.

Nadirova and Jackson (2000) researched constraints in “Alternative Criterion Variables Against Which to Assess the Impacts of Constraints to Leisure”. The purposes of the study were to identify key criterion variables in constrained leisure and to determine if structural constraints

are experienced sequentially. The study was based on structural constraints by Crawford and Godbey (1987) and the heterogeneity issue, involving how intensities of constraints relate to constrained leisure. Authors utilized an instrument that measured constraints in leisure behavior and experience through a questionnaire. The questionnaire was distributed to 500 randomly selected homes in Edmonton, Alberta. The response rate was 59.2%, 296 questionnaires. A total constraints score was found for responses on 21 items, and a factor analysis was done to identify categories of constraints. Relationships were analyzed between mean scores of total and dimensions of constraints. The most common constraint of the sample was not being able to participate as often as they would like (72.4%). Other common constraints were quitting participation in an activity, being unable to start a new activity, and not enjoying activities. Dimensions of constraints were a) time and commitments, b) costs of participating, c) lack of skills, d) lack of knowledge, and e) social geographical isolation. Time and commitments constraints were the main reasons why participants were not able to participate as often as they would have liked and costs and lack of skills were the constraints that caused participants to quit or be unable to participate. Further research should be done on the hierarchy of constraints within single dimensions.

Little (2002) researched constraints for women in “Women and Adventure Recreation: Reconstructing Leisure Constraints and Adventure Experiences to Negotiate Continuing Participation”. The purpose of the study was to examine meanings of women’s experiences in adventure and how the meanings relate to their leisure behavior. Constraints negotiation theory by Samdahl and Jekubovich (1997) and resistance theory by Shaw (1994) were used in the study to describe women’s constraints. Constraints negotiation describes how constraints influence

leisure in daily lives. Resistance theory states that society limits women's access to leisure activities because of politics, financial issues, and social or emotional power. In-depth interviewing and six-month diaries were completed for each participant to study their adventure leisure experiences. The participants were 42 women that had previously participated in adventure recreation at some point in their lives, differing in country of origin and type of recreation activities. The journals were transcribed and coding was used to organize similar themes in the women's information. The results showed constraints experienced in groups for the women; commitments, perception of self, and the technical nature of adventure. Socio-cultural constraints were experienced by all women and influenced participation more than any other variable. These constraints were influenced by gendered role expectations and consequently their opportunities, knowledge, and experiences were limited. The women negotiated constraints by prioritizing adventure recreation, compromising activities to fit into their lifestyle, changed their definition of adventure recreation to allow for less demanding activities, and anticipating the next activity they would be able to participate in. Through negotiating constraints, the women resisted the societal conflicts with participating in adventure recreation. Conclusions suggest that constraints and leisure need to be considered in the context of a women's life in order to determine why decisions are made regarding leisure behavior.

Webster and Tiggemann (2003) researched body satisfaction in women in "The Relationship Between Women's Body Satisfaction and Self-Image Across the Life Span: The Role of Cognitive Control". The purpose of the study was to examine the relationship between body satisfaction and self-image in different age groups. Self-concept theory by Rodin, Siberstein, and Striegel-Moore (as cited in Webster and Tiggemann, 2003) states that

dissatisfaction with body type can have a negative impact on self-esteem. Women have more secondary control over their bodies as they get older. Secondary control includes cognitive control, the ability to reevaluate situations and reduce the importance of an object to be controlled. Questionnaires were distributed containing a modified version of the Body Cathexis Scale (Secord & Jourard, 1953); body importance was measured through seventeen items rated from one to five on importance, and cognitive control was measured through nine Likert-type items taken from two other subscales. Self-concept was measured by the Tennessee Self-Concept Scale developed by Fitts in 1965 and self-esteem was measured by an adaptation of the Rosenberg Self-Esteem Scale by Rosenberg in 1965. Questionnaires were distributed to 186 women and returned in a postage-paid envelope. The response rate was 62%, 116 participants responded. The women were placed in three age groups for statistical analysis, 20-34 years, 35-49 years, and 50-65 years old. The scores from each of the three sections were totaled ranging from 17 to 85. Analyses of variances were used to identify differences among age groups followed by post hoc testing, and hierarchical multiple regression analyses were completed. Significant negative relationships were found between body dissatisfaction and self-concept and between body dissatisfaction and self-esteem. There was not a significant difference between body dissatisfaction for the three age groups. Body dissatisfaction, self-concept, and self-esteem were stronger for women in the younger two age groups and for women with low perceptions of cognitive control. The main finding of the study suggested by Webster and Tiggeman (2003) was that age regulates the relationship between body dissatisfaction and self-concept and self-esteem.

Kruisselbrink, Dodge, Swanburg, and MacLoed (2004) researched social physique anxiety as a constraint in “Influence of Same-Sex and Mixed-Sex Exercise Settings on the Social Physique Anxiety and Exercise Intentions of Males and Females”. The purpose of the study was to determine men and women’s exercise experiences in all female, all-male, and mixed-sex exercise settings. The theory used in the study was the social physique anxiety theory (SPA) by Hart, Leary, and Rejeski (as cited in Kruisselbrink et al., 2004) in which anxiety is experienced because of people evaluating others appearances. The four hypotheses were that a) women would experience higher situational SPA than men, b) social anxiety ratings would be higher for women in all-male exercise settings, c) women would quit their workout early in the all-male exercise setting, and d) SPA scores would be higher for those participants that shortened their workout. The Social Physique Anxiety Scale (SPAS), a nine-item five-point Likert scale ranging from “not at all characteristic of me” to “extremely characteristic of me”, was used to measure anxiety of others evaluating their bodies. The SPAS was completed by each participant for each of the three settings. The last question of the survey was, “How do you think this setting would affect the length of your typical exercise workout?” The 131 participants were members of a coed fitness facility in Canada. The final sample used in the study was 96 participants. SPA was measured by a 2x3 factorial ANOVA followed by post hoc analyses. Binomial confidence intervals were computed to identify overlapping between the three exercise scenarios. Fisher’s exact test was used for the mixed-sex exercise scenario. The SPA scores for women increased significantly from the all-female setting scenario to the mixed-sex setting and then the all-male exercise setting. The SPA scores for men did not differ in the three exercise settings. The percentage of women that would shorten their workout because of SPA was 35.5% for the all-

male scenario, 10.2% for the mixed-sex scenario, and 1.9% for the all-female scenario. The four hypotheses that were tested were found to be statistically significant. Results of the study suggested that exercise setting, SPA, and exercise intentions are related and should be considered by fitness centers when developing facilities and programs.

Sinclair (2006) researched constraints for women in “A Theoretical and Empirical Study of Objectified Body Consciousness in Women”. The purpose of the study was to examine the relationship between sociocultural variables and women’s body experience. The objectified body consciousness theory (OBC) by McKinley (as cited in Sinclair, 2006) states that the cultural ideas of the female body and expectations of appeal lead to negative experiences for women. These negative experiences include constant monitoring of their bodies, body shame, negative body esteem, and eating disorders. The questionnaire consisted of the Objectification Experiences Questionnaire developed by Burnett, the Sociocultural Attitudes Toward Appearance Questionnaire developed by Heinburg, Thompson, and Stormer, the Objectified Body Consciousness Scale developed by McKinley, and demographic questions on race/ethnicity, sexual orientation, age, year in school, socioeconomic status, and body mass index. There were 272 female volunteer undergraduate students from a mid-sized university in the Southeast that completed the questionnaire in class. The final sample size was 190 controlling for confounding variables of ethnicity and sexual orientation. The Pearson Product Moment Correlations was used for the predictor variables and components of OBC. Three multiple regression analyses were conducted to determine variance in the components of OBC. Independent samples t-tests were conducted to measure the relationship between race/ethnicity and components of OBC. There were statistically significant relationships between sociocultural

attitudes toward appearance, body surveillance, and shame of the OBC. There was a statistically significant negative relationship between sociocultural attitudes toward appearance and appearance control beliefs. There were no statistically significant differences between African American and European American women for the components of OBC. Statistically significant mean differences on body shame were found between the underweight group and the normal weight group and the underweight group and the overweight group. The recognition of sociocultural attitudes toward appearance was not statistically significant, as previously found in studies. The conclusions of the study were that body surveillance increased in women when they internalized sociocultural attitudes toward appearance.

Liechty, Freeman, and Zabriskie (2006) researched constraints in “Body Image and Beliefs About Appearance: Constraints on the Leisure of College-Age and Middle-Age Women”. The purpose of the study was to determine constraints for women due to poor body images. The study was based on Crawford and Godbey’s categories of leisure constraints and Marquez and McAuley’s social physique anxiety (as cited in Liechty et al., 2006). The researchers utilized an online questionnaire containing the Leisure Constraints Scale by Raymore et al., the Body Image Assessment Scale by Thompson & Gray, and the Beliefs About Appearance Scale by Spangler & Stice. Participants were female college-age students in general education classes and living in campus housing. The students were sent an online questionnaire and asked to send the Internet address and code for their mothers to complete the questionnaire as well. Pearson correlations were done on predictor variables and between sociodemographic variables and the dependent variable. Multivariate regression models analyzed the factors that predicted the individual response variables. Mothers and daughters in the study believed that

they were larger than their ideal size, 93.4% and 84.5% respectively. Body mass index (BMI) was negatively correlated with appearance constraints and body image. The total constraints mean score for mothers was 66.95 and 68.57 for daughters. A large number of mothers and daughters either agreed or strongly agreed that appearance stopped them from participating in physical activity, 57% and 36%. Appearance related constraints were constraints to participation, constraints to enjoyment, constraints to physically active leisure, and constraints into activities for weight loss. Almost half of the women in this study chose not to participate in physical activity because of their appearance and 60% of the women participated in activities that they do not enjoy to lose weight. Further research should be conducted on reducing appearance related constraints for women.

Summary

Satisfaction, commitment, and constraints are factors that contribute to decisions regarding participation at fitness centers. The three concepts have been widely researched in a variety of settings including leisure service providers. However, there are very few studies on middle-age women and their leisure experiences concerning satisfaction and commitment. This study attempts to examine the issue further by surveying adults at five fitness centers in Cedar Falls and Waterloo to determine their levels of satisfaction and commitment toward their leisure service provider and constraints they encounter.

CHAPTER III

METHODS

The purpose of the study was to determine the satisfaction, commitment, and constraint for middle-age women exercising in fitness centers in Cedar Falls and Waterloo. Participants were asked to fill out a survey at chosen fitness centers in Cedar Falls and Waterloo, Iowa during a two-week period of time in January. Dates and times were randomly selected for each fitness center.

Participants

The participants in the research study (n=260) were chosen through systematic sampling. Every third person was asked to participate after their workout session at the five chosen fitness centers in Cedar Falls and Waterloo, Iowa. The fitness centers chosen were the YMCA (n=47), Cedar Falls Recreation Center (n=85), WRC at the University of Northern Iowa (n=58), Anytime Fitness (n=28), and Curves (n=42). Research was conducted through a two-week period and each fitness center was visited in two hour segments seven times throughout the two weeks. The participants were 68% women (n=178) and were between the ages of 17-33 (45.4%), followed by 36-60 (43.5%) and 61-78 (11.2%).

Instrument

The survey consisted of a cover letter containing the consent form and satisfaction, commitment, constraints to leisure, and demographic questions. The survey was designed utilizing three existing surveys from Theodorakis et al. (2004), Kyle and Mowen (2005), and

Raymore et al. (1993). Satisfaction, commitment, and constraint sections utilized Likert-type questions ranging from Strongly Disagree to Strongly Agree.

The satisfaction component was chosen because it is closely tied to participation at fitness centers. Theodorakis et al. (2004) researched customer satisfaction using a 24 item scale developed by Alexandris et al. (1999) specifically for fitness centers. Satisfaction was segmented into six dimensions of facilities, staff attitude, relaxation, intellectual, health/fitness, and social. The survey developed for this research study did not include questions regarding programs because many of the fitness centers do not offer programs for their members. The dimensions used in the study were facilities, services, staff attitude, and social.

Commitment was measured using the scale from Kyle and Mowen (2005) in “An Examination of the Leisure Involvement-Agency Commitment Relationship”. Five sub-scales consisting of a) place dependence, b) affective attachment, c) place identity, d) value congruence, and e) social bonding were used (Cruen, Sommers, and Acito, 2000, Jorgensen and Stedman, 2001, Williams and Roggenbuck, 1989). Place dependence measures participants reliance on leisure service provider to provide them with certain experiences, affective attachment determines the emotional connection between the participants and a facility, place identity shows how facilities are tied to participants sense of self, value congruence determines agreement on values for the participants and the facility, and social bonding is the social tie to a particular facility (Kyle and Mowen, 2005).

Constraints were measured by using the Leisure Constraint questionnaire scale from Raymore et al. (1993). The questionnaire contained 19 items of intrapersonal, interpersonal, and structural constraints to leisure. Intrapersonal constraints consisted of reasons why the

participant would or would not want to be involved with a new leisure activity, interpersonal constraints were questions regarding how the people around them constrained their leisure, and structural constraints were questions regarding the facility or setting that would inhibit participation.

Data Analysis

Descriptive statistics were used to show satisfaction, commitment, and constraint levels for participants and t-tests, discriminant function analysis, general linear model, and ANOVA's were used to examine demographic differences between participants in each section.

CHAPTER IV

RESULTS

Purpose of Study

The purpose of the study was to determine the satisfaction, commitment, and constraint for middle-age women exercising in fitness centers in Cedar Falls and Waterloo. The research was conducted to better understand clientele in the area for leisure professionals to more effectively serve their needs.

Sample Demographics

There were 260 surveys completed using the systematic sampling technique in the fitness centers. Women made up 68.5 percent of the sample or 178 participants. The age ranged from 17 to 78 with a mean of 38.85 (SD = 16.45). The mean number of days that people worked out per week was 3.90 (SD = 1.18) and the mean time spent working out was 68.79 minutes (SD = 30.93). The length of membership ranged from 1 month to 30 years with a mean of 3.36 years (SD = 4.71 years).

The following table shows that number and percentages of participants in age, gender, education, income, and marital status. The table is representative of the participants used in the study.

Table 1

Demographic Characteristics of the Sample

	N	%
Sex		
Male	82	31.5
Female	178	68.5
Age		
17-33	118	45.4
36-60	113	43.5
61-78	29	11.2
Income		
Less than 10,000		
10,000-14,999	14	5.9
15,000-24,999	12	5.1
25,000-34,999	28	11.9
35,000-49,999	22	9.3
50,000-74,999	44	18.6
75,000-99,999	33	14
100,000 or more	33	14
Education		
High school or GED	113	43.5
Bachelor's Degree	101	38.8
Master's Degree or higher	42	16.2
Marital Status		
Single	108	41.5
Married	133	51.2
Divorced or widowed	19	7.3

Research Questions

The two research questions that this study focused on were differences between middle-age women in co-ed facilities compared to women-only facilities and differences among age, gender, education, income, and marital status in satisfaction, commitment, and constraints at the

fitness centers in Cedar Falls and Waterloo. Independent Sample T-test, ANOVA's, and discriminant function analysis tests were conducted.

Differences By Age Groups

An Independent sample t-test was performed to study the differences in satisfaction, commitment, and constraints between three different age groups (17-33, 36-60, 61-78). There was only a statistically significant difference in the social dimension (.012) of satisfaction among the age groups. After using a t-test for equality of means there were statistically significant differences between the staff (.004) and social (.036) dimensions of satisfaction. The social dimension mean for participants 17-33 was 3.77, 4.23 for 36-60, and 4.62 for 61-78. The staff dimension mean for those 17-33 was 15.11, 16.47 for 36-60, and 17.72 for 61-78.

One-way ANOVA's were conducted to determine the difference among age groups in dimensions of satisfaction, commitment, and constraints. Staff and social dimensions of satisfaction, and attachment, identity, and bonding dimensions of commitment were significant at the $p < .05$ level. Scheffe's post hoc tests were conducted to find the differences between age groups in those statistically significant dimensions. The staff dimension of satisfaction and the attachment dimension of commitment were statistically significant except between age groups two and three (.064) and (.152) respectively. The social dimension of satisfaction and the bonding dimension of commitment were statistically significant between all three age groups.

A discriminant function analysis was conducted on the three age groups and all questions of the survey. The youngest age group, 17-33 years old, scored lowest on all interpersonal constraints but had the most intrapersonal and structural constraints. They exercised the most

days a week (mean=3.97). The 36-60 age group scored the highest on interpersonal constraints “People I know live too far away to start fitness activity with me”, “The people I know have too many family obligations to start a new fitness activity with me”, and “The people I know usually don’t have enough skills to start a new fitness activity with me”. Participants from 61-78 years scored the highest on the length of membership at a fitness center and time spent at the fitness center. They were more unlikely to start a new fitness activity because others do not have time to participate with them, because they do not have transportation, and more likely to start a new activity that doesn’t require a lot of skill.

Differences By Gender

One way ANOVA’s were conducted to determine differences between gender and all dimensions of the survey. There was nothing statistically significant among constraints and gender. There were statistically significant differences for all of the other categories of the survey including demographic questions and satisfaction and commitment scales. A t-test was done on demographic questions and gender; income (mean = 4.31 for males, 4.81 for females), education (mean = 1.68 for males, 1.74 for females), marital status (mean = 1.49 for males, 1.74 for females), time spent working out (mean = 79.33 for males, 63.93 for females), days participating each week (mean = 3.98 for males, 3.87 for females), and length of membership (mean = 47.61 for males, 36.99 for females).

An independent samples t-test was conducted to compare the dimensions of satisfaction, commitment, and constraints scales. Levene’s Test for Equality of Variances showed that the social dimension of satisfaction was the only statistically significant dimension at .012. The t-

test for equality of means showed that age and the staff and social dimensions of satisfaction were statistically significant at 0.29, .004, and .036 respectively.

T-tests were conducted on the relationship between gender and the time spent working out each week, days spent at the fitness center each week, and the length of membership. The mean time spent at fitness centers each week was 79.33 (SD = 32.73) for men and 63.93 (SD=28.89). An independent samples t-test was conducted and the difference between men and women and their time spent at fitness centers was statistically significant ($p < .000$). The mean number of days spent at fitness centers was 3.98 (SD= 1.27) for men and 3.87 (SD= 1.13) for women. The mean length of membership was 47.61 (SD= 65.41) months for men and 36.99 (SD= 51.82) for women.

Differences By Income

A crosstabulation was performed on income and the five fitness centers. The Pearson chi-square test had a statistically significant association between income and membership at a fitness center. The University of Northern Iowa Wellness and Recreation Center had the majority of participants (63.8%) with an income of less than \$10,000 and the second highest from \$10,000-14,999 (17.2%). The Cedar Falls Recreation Center had the majority of participants in the top three income brackets, 21.6% for \$50,000-74,999, 20.3 for \$75,000-99,999, and 24.3 for \$100,000 or more. Anytime Fitness' two most common income brackets were less than \$10,000 (29.6%) and from 25,000-34,999 (22.2%). The YMCA's members were in the \$35,000-49,999 (21.4%), \$50,000-74,999 (26.2%), and more than \$100,000 (19%). Curves members were most commonly in income brackets \$25,000-34,999 (20%), \$50,000-74,999 (26.2%), \$75,000-99,999 (17.1%), and more than \$100,000 (17.1%).

Table 2

Income in Percentage by Types of Fitness Center Participants

	Less than 10,000	10,000- 14,999	15,000- 24,999	25,000- 34,999	35,000- 49,999	50,000- 74,999	75,000- 99,999	100,000 or more	Total
UNI	63.8	17.2	1.7	8.6	1.7	3.4	3.4	0	58
Cedar Falls Recreation Center	4.1	4.1	9.5	6.8	9.5	21.6	20.3	24.3	74
Anytime Fitness	29.	3.7	7.4	22.2	7.4	11.1	14.8	3.7	27
YMCA	4.8	0	2.4	11.9	21.4	26.2	14.3	19	42
Curves	0	0	2.9	20	8.6	34.3	17.1	17.1	35
Total/Percent ages of total	21.2	5.9	5.1	11.9	9.3	18.6	14	14	236

Differences By Fitness Centers

One-way ANOVA's were conducted to determine differences in satisfaction, commitment, constraints, and demographic variables between members at the fitness centers. Scheffe's post hoc tests showed statistical significance in all dimensions of satisfaction, and in affective attachment, place identity, and value congruence dimensions of commitment. In the facility dimension there were statistically significant differences between the Cedar Falls Recreation Center (.025), Anytime Fitness (.000), Curves (.017) and the YMCA. There was a statistically significant difference between the Cedar Falls Recreation Center and the YMCA (.039) in the services dimension of satisfaction. The differences between Curves and the WRC (.000), the Cedar Falls Recreation Center (.003), and the YMCA (.014) were statistically significant in the staff dimension.

In the commitment scale there were no statistically significant differences between fitness centers and the place dependence dimension. There were statistically significant differences between the WRC and the Cedar Falls Recreation Center (.010) and between the WRC and Curves (.000) for affective attachment. In the place identity dimension the WRC and Curves were statistically significant (.007). There were statistically significant differences between Curves and the WRC (.000), Curves and the Cedar Falls Recreation Center (.000), Curves and the YMCA (.041). There was no significance in the social bonding dimension of commitment.

In the demographic variables there was statistical significance between centers in all of the questions except for the number of days per week that a member exercises. There was a statistically significant difference between the WRC and the Cedar Falls Recreation Center (.000), Anytime Fitness (.054), the YMCA (.000), and Curves (.014) in the level of education received. There were statistically significant differences in marital status between the WRC and all of the other fitness centers, between the Cedar Falls Recreation Center and Curves (.000), and between Anytime Fitness and the YMCA (.001) and Curves (.000). Members at Curves had a mean for time spent working out that was statistically significant from the other four fitness centers. The YMCA member's length of membership was statistically significant from the WRC (.020), Anytime Fitness (.000), and Curves (.021).

Differences Between Curves and Other Fitness Centers

Curves (n=42) was compared to the four other fitness centers (n=218) through an Independent Samples Test on satisfaction, commitment, and constraints, and demographic

questions. The Levene's Test for Equality of Variances showed that time spent working out at a facility (.003) and the length of membership (.005) were statistically significant. The T-test for Equality of Means found that the staff (.000) and social (.000) dimensions of satisfaction, affective attachment (.002), place identity (.005), value congruence (.000), and social bonding (.042) dimensions of commitment, and time spent working out (.000) were statistically significant.

Differences Between Participants By Age and Gender

The General Linear Model showed that the staff and social dimensions of satisfaction and the attachment and bonding dimensions of commitment were statistically significant when combining age and gender. There was no statistically significant interaction effect between age and gender on satisfaction, commitment, or constraints. The percent of total variability in staff (12.8%), social (16.8%), and social bonding (12.9%) can be explained by age and gender. Post hoc tests showed that the statistically significant differences were between age groups 17-33 and 36-60 and 17-33 and 61-78 for staff, social, and affective attachment dimensions and between all three age groups for the social bonding dimension.

The Univariate Analysis of Variance showed that the males' scores increased with age on all satisfaction and commitment scales except for value congruence. The males' scores on intrapersonal and structural constraints decreased with age, but interpersonal constraints were highest for the age group 61-78. Female scores for satisfaction increased with age except for the services dimension which decreased with age. The affective attachment, place identity, value congruence, and social bonding dimensions of commitment increased with age for females and

place dependence decreased. Intrapersonal and structural constraints had similar results with the youngest age group having the highest mean followed by the oldest age group and then middle-age. Middle-age women had highest interpersonal constraints.

Satisfaction

The mean scores for the satisfaction ranged from 3.88 (Undecided) to 4.21 (Agree). The median for the 11 items was 4. The minimum scores for the facility dimension were 5 and the maximum was 15 out of 15, 5 and 15 out of 15 for the services dimension, 8 and 20 out of 20 for the staff dimension, and 3 and 5 out of 5 for the social dimension.

Table 3

Comparing Means of Satisfaction

Satisfaction	Mean	Male Mean	Female Mean
Facilities		12.30	12.36
The facilities are attractive.	4.18		
The facilities are modern.	4.16		
The facilities are well-designed.	4		
Services		12.06	12.16
The exercise places are clean.	4.21		
The changing rooms are clean.	4.04		
There are a wide range of programs.	3.88		
Staff		15.29	16.33
The staff is helpful.	4.09		
The instruction in the session is good.	3.86		
The fitness instructors/trainers are friendly.	4.13		
The instructors are well educated.	3.91		
Social		3.94	4.13
The participants in the program are friendly to me.	4.07		

Note: Five-point Likert scale where 1=Strongly Disagree and 5=Strongly Agree

The majority of participants agreed with the satisfaction questions in the facility, services, and social dimensions. The staff dimension was split largely into Strongly Agree and Agree

combined into 81.9% for “The staff is helpful”, 63.5% for “The instruction in the session is good”, 78.9% for “The fitness instructors/trainers are friendly”, and “The instructors are well educated”.

Table 4

Satisfaction Questions (in percentages)

Satisfaction	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean
Facilities (alpha = .848)						
The facilities are attractive.	26.5	66.9	4.6	1.9	0	4.18
The facilities are modern.	26.5	66.2	3.8	3.5	0	4.16
The facilities are well-designed.	23.8	61.2	8.1	5.4	1.5	4
Services (alpha = .629)						
The exercise places are clean.	31.9	69	5.4	2.7	0	4.21
The changing rooms are clean.	28.8	52.3	13.5	5	.4	4.04
There are a wide range of programs.	22.7	51.9	16.5	8.1	.8	3.88
Staff attitude (alpha = .875)						
The staff is helpful.	32.3	49.6	13.5	4.2	.4	4.09
The instruction in the session is good.	23.5	40	35.8	.8	0	3.86
The fitness instructors/trainers are friendly.	35.4	43.5	20.4	.8	0	4.13
The instructors are well educated.	26.9	38.5	33.5	1.2	0	3.91
Social						
The participants in the program are friendly to me.	28.5	50.4	21.2	0	0	4.07

Note: Five-point Likert scale where 1=Strongly Disagree and 5=Strongly Agree

Commitment

Mean scores ranged from 2.31 to 4.1 out of 5. The question with the lowest median of 2 (Disagree) was “If I were to stop visiting my fitness center I would lost contact with a number of friends”. The question with the largest standard deviation (2.55) was “I prefer my fitness center over other public recreation settings/facilities”.

Table 5

Comparing Means of Commitment

Commitment	Mean	Male Mean	Female Mean
Place Dependence		14.67	15.27
I prefer my fitness center over other public recreation settings/ facilities.	4.1		
Compared to my fitness center there are few satisfactory alternatives.	3.31		
For the recreation activities that I enjoy most, the settings and facilities provided by my fitness center are the best.	3.81		
I enjoy visiting my fitness center more than any other sites.	3.86		
Affective Attachment		14.29	14.62
My fitness center means a lot to me.	3.95		
I am very attached to my fitness center.	3.62		
I feel a strong sense of belonging to my fitness center and its settings/facilities.	3.65		
I have little, if any, emotional attachment to my fitness center and its settings/facilities.	3.31		
Personal Identity		6.93	6.94
I feel my fitness center is a part of me.	3.37		
I identify strongly with my fitness center.	3.57		
Value Congruence		14.60	15.03
My fitness center's attitude toward recreation is similar to my own.	3.75		
My fitness center shares my values.	3.72		
My fitness center's views are similar to my own.	3.69		
My fitness centers' goals related to recreation are consistent with my own views.	3.73		
Social Bonding		4.87	4.96
My friends/family would be disappointed if I were to start visiting other settings/facilities.	2.31		
If I were to stop visiting my fitness center I would lost contact with a number of friends.	2.62		

Note: Five-point Likert scale where 1=Strongly Disagree and 5=Strongly Agree

Three out of four questions in the place dependence dimension had Agree as the majority of responses. The majority of responses in affective attachment and place identity dimensions

were in the Agree and Undecided categories. Value congruence had the highest percentage of participants answering they agree that their fitness center's attitude is similar to theirs, they share the same values and views, and the fitness center's goals are consistent with their goals. The social bonding dimension showed that participants responded as disagreeing or strongly disagreeing with their friends or family being disappointed if they switched fitness centers or they would lose contact with them if they switched fitness centers (See Table 6).

Table 6

Commitment Questions (in percentages)

Commitment	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean
Place dependence (alpha=.703)						
I prefer my fitness center over other public recreation settings/facilities.	25	50.4	18.8	5	.4	4.1
Compared to my fitness center there are few satisfactory alternatives.	9.6	36.9	29.2	22.3	1.5	3.31
For the recreation activities that I enjoy most, the settings and facilities provided by my fitness center are the best.	19.2	50.8	21.5	8.5	0	3.81
I enjoy visiting my fitness center more than any other sites.	18.5	54.2	22.7	4.2	.4	3.86
Affective attachment (alpha=.822)						
My fitness center means a lot to me.	20.4	56.9	19.6	3.1	0	3.95
I am very attached to my fitness center.	16.9	40	31.2	11.5	.4	3.62
I feel a strong sense of belonging to my fitness center and its settings/facilities.	13.8	46.5	30.4	8.8	.4	3.65
I have little, if any, emotional attachment to my fitness center and its settings/facilities.	8.8	39.6	27.3	22.3	1.9	3.31

Table 6 Continued

Commitment Questions (in percentages)

Commitment Questions Continued...	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean
Place identity (alpha= .769)						
I feel my fitness center is a part of me.	8.8	40	31.2	19.2	.8	3.37
I identify strongly with my fitness center.	9.2	48.8	31.2	10.8	0	3.57
Value congruence (alpha=.879)						
My fitness center's attitude toward recreation is similar to my own.	6.9	65	24.2	3.8	0	3.75
My fitness center shares my values.	6.5	61.5	29.2	2.3	.4	3.72
My fitness center's views are similar to my own.	5.8	60	31.9	2.3	0	3.69
My fitness center's goals related to recreation are consistent with my own views.	5.4	66.9	24.6	1.9	1.2	3.73
Social bonding (alpha=.517)						
My friends/ family would be disappointed if I were to start visiting other settings/facilities.	2.7	8.8	24.6	44.6	19.2	2.31
If I were to stop visiting my fitness center I would lose contact with a number of friends.	6.5	20.4	15	44.2	13.8	2.62

Note: Five-point Likert scale where 1=Strongly Disagree and 5=Strongly Agree

Constraints

The mean scores ranged from 1.77 "I am too shy to start a new leisure activity" to 4.14 "I am more likely to do a new fitness activity if I know what is available" out of 5. Medians ranged from 2 (Disagree) to 4 (Agree). Availability, time, uncrowded facilities, transportation, and convenience were the statements that people responded they needed in order to participate (See Table 7).

Table 7

Comparing Means of Constraints

Constraints	Mean	Male Mean	Female Mean
Intrapersonal Constraints		16.59	17.46
I am too shy to start a new fitness activity.	1.99		
I am more likely to do a new fitness activity that my family would think is alright.	2.62		
I am unlikely to do a new fitness activity that makes me feel uncomfortable.	3.31		
I am more likely to do a new fitness activity that my friends thought was alright.	2.8		
I am more likely to do a new fitness activity that doesn't make me feel self-conscious.	3.7		
I am more likely to do a new fitness activity that doesn't require a lot of skill.	2.96		
Interpersonal constraints		17.02	17.27
The people I know live too far away to start a new fitness activity with me.	1.99		
The people I know usually don't have time to start a new fitness activity with me.	3.02		
The people I know usually have enough money to begin a new fitness activity with me.	2.57		
People I know usually have too many family obligations to start a new fitness activity with me.	2.67		
The people I know usually know what new fitness activities they could do with me.	2.71		
The people I know usually don't have enough skills to start a new fitness activity with me.	2.34		
The people I know usually don't have transportation for new fitness activity with me.	1.89		
Structural constraints		19.3	19.51
I am more likely to do a new fitness activity if the facilities I need to do the activity aren't crowded.	3.79		
I am more likely to do a new fitness activity if I have transportation.	3.66		
I am more likely to do a new fitness activity if I know what is available.	4.14		
I am unlikely to do a new fitness activity if the facilities I need to do the activity aren't convenient.	4.05		
I am unlikely to do a new fitness activity if I don't have time.	3.8		

Note: Five-point Likert scale where 1=Strongly Disagree and 5=Strongly Agree

Participants agreed with intrapersonal constraints of not participating in activities that made them uncomfortable (41.5%) or self-conscious (53.5%). The majority of participants Strongly Disagreed or Disagreed they were too shy to start a new fitness activity (86.1%). In the interpersonal constraints dimension participants answered most commonly in the Disagree column except for the statement “The people I know usually don’t have time to start a new fitness activity with me”. In the structural constraints dimension all of the statements had the highest percentage of participants agree with the statements (See Table 8).

Table 8

Constraints Questions (in percentages)

Constraints	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean
Intrapersonal constraints (alpha =.749)						
I am too shy to start a new fitness activity.	1.9	5.4	6.5	39.6	46.5	1.77
I am more likely to do a new fitness activity that my family would think is alright.	5.4	24.2	18.8	30.4	21.2	2.62
I am unlikely to do a new fitness activity that makes me feel uncomfortable.	14.6	41.5	14.2	19.6	10	3.31
I am unlikely to do a new fitness activity.	1.9	8.8	11.5	44.6	33.1	2.02
I am more likely to do a new fitness activity that my friends thought was alright.	4.6	31.2	18.8	30.8	14.6	2.8
I am more likely to do a new fitness activity that doesn’t make me feel self-conscious.	19.6	53.5	7.7	14.6	4.2	3.7
I am more likely to do a new fitness activity that doesn’t require a lot of skill.	6.5	35.4	13.8	36.2	8.1	2.96
Interpersonal constraints (alpha =.537)						
The people I know live too far away to start a new fitness activity with me.	.4	8.8	9.6	51.5	29.6	1.99

Constraints Continued...	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Mean
The people I know usually don't have time to start a new fitness activity with me.	4.2	40.8	15.4	30.8	8.5	3.02
The people I know usually have enough money to begin a new fitness activity with me.	3.8	16.2	20.8	51.9	7.3	2.57
The people I know usually have too many family obligations to start a new fitness activity with me.	3.8	24.6	17.3	42.7	11.2	2.67
The people I know usually know what new fitness activities they could do with me.	2.7	20.8	25.2	45.4	5	2.71
The people I know usually don't have enough skills to start a new fitness activity with me.	2.7	11.5	15.4	58.1	12.3	2.34
The people I know usually don't have transportation to get to a new fitness activity with me.	.8	.8	11.5	60.4	26.5	1.89
Structural constraints (alpha = .545)						
I am more likely to do a new fitness activity if the facilities I need to do the activity are not crowded.	25.8	48.1	9.2	12.3	4.2	3.79
I am more likely to do a new fitness activity if I have transportation.	15	57.7	8.8	13.5	4.6	3.66
I am more likely to do a new fitness activity if I know what is available.	25.8	66.5	4.2	1.5	1.5	4.14
I am unlikely to do a new fitness activity if the facilities I need to do the activity aren't convenient.	25.4	62.3	5.8	5.4	1.2	4.05
I am unlikely to do a new fitness activity if I don't have time.	16.9	63.1	5.8	11.5	2.7	3.8

Note: Five-point Likert scale where 1=Strongly Disagree and 5=Strongly Agree

CHAPTER V

DISCUSSION

Summary of Purpose

The purpose of the study was to determine levels of satisfaction, commitment, and constraints for middle-age women exercising in fitness centers in Cedar Falls and Waterloo. The results may help leisure professionals to develop programs and services that suit the needs of this segment. Although there are many options for participation, not everyone has equal access and opportunity. It is important to determine the reasons why people are not exercising in order to increase the number of people that are participating.

Satisfaction

Table 9

Comparing Results of Study and Existing Literature in Satisfaction

Satisfaction	Results	Literature
Gender	Female mean scores were higher than mens scores overall in the satisfaction categories.	Females were less satisfied in facilities/services (Theodorakis et al., 2004).
Education	Pearson's correlation suggested that education was negatively correlated to satisfaction.	The more education participants received the less satisfied they were (Theodorakis et al, 2004).
Overall scores	The means were 4 (agree) or higher except for programs and instructor's education.	Overall high satisfaction scores with facilities (Theodorakis et al, 2004).
Staff and Social	Staff and social dimensions had mean scores near 4 (agree) and the medians were all 4.	Customer to customer relationships are not predictors of satisfaction, but relationships with staff are (Guenzi & Pelloni, 2004).
Membership	Length of membership and satisfaction's correlation was not statistically significant.	Customer satisfaction has a positive effect on retention (Gustafsson, Johnson, & Roos, 2005)

The Independent samples t-test found that the staff and social dimensions were statistically significant different for males and females. The mean score for the staff dimension

was 15.29 for males and 16.31 for females ($p=.004$). The mean score for the social dimension for males was 3.93 and 4.13 for females ($p=.036$). The female participants overall were more satisfied with their facilities than the male participants.

The facilities, services, and social dimensions of satisfaction had the majority of participants answer they strongly agree or agreed with the satisfaction statements. The staff dimension was split between strongly agree, agree, and undecided. Participants may not be involved in programs at their fitness centers that use instructors and therefore are undecided about their satisfaction level.

Guenzi and Pelloni (2004) found that relationships between customers were not a predictor of satisfaction but relationships with staff was a significant predictor of satisfaction. The results of the study found that both staff and social dimensions were significant predictors of satisfaction. Customers on average spent 68.79 minutes at their fitness center for each visit which may influence the length of time spent at the center.

Commitment

Table 10

Comparing Results of Study and Existing Literature in Commitment

Commitment	Results	Literature
Demographics	Time spent working out, number of days a week, and length of membership were significant with dimensions of commitment	Commitment to a service provider include length of membership, duration of each visit, and number of visits a week (Pritchard, Havitz, & Howard, 1999)
Social bonding	Statistically significant when comparing means between males and females and comparing Curves to other fitness centers.	Social bonding was not a substantial factor in commitment (Kyle, Mowen, Absher, & Havitz, 2006)

A one-way ANOVA comparing the means of commitment dimensions and demographic questions suggests that indicators of commitment to a service provider are the length of membership, duration of each visit, and the number of days a week a member visits the center. The time spent working out each visit and the length of membership mean scores and the mean scores of the social bonding dimension of commitment were statistically significant. The participants that spent longer time at the fitness center had more social ties to the center. The time spent working out and the days of participation at the center mean scores and the mean scores of affective attachment were statistically significant. Participants that spend more time at a fitness center are more emotionally attached to their center.

There was a statistically significant difference between Curves and the other fitness centers in the social bonding dimension of commitment. The males mean score of the length of membership and time spent working out were higher than the female mean scores. Male members may have more social ties to their fitness centers because they spend more time on average than females at the centers.

Constraints

Table 11

Comparing Results of Study and Existing Literature in Constraints

Constraints	Results	Literature
Hierarchical model	Highest means were structural followed by interpersonal and intrapersonal.	Structural constraints had the highest mean followed by intrapersonal and interpersonal (L. Raymore et al., 1993).
Age	The oldest age group, 61-78, had the lowest intrapersonal constraints and structural constraints. The middle-age group spent more time on average at fitness centers than those 17-33.	Constraints decreased with age (Jackson, 1993). Time Commitments were highest constraint for middle-age group (Jackson, 1993).
Gender	No statistically significant differences between males and females in constraints.	Women are more constrained in family commitment and obligations, and lack of opportunities and programs (Shaw, 1994).

Structural constraints had the highest mean scores for males and females similar to the literature, but females had a higher score for intrapersonal constraints than for interpersonal constraints. Intrapersonal constraints include feeling self-conscious, uncomfortable, being shy, lack of skill, and worrying about what friends and family would think is alright. Males had a higher mean score for interpersonal constraints than for intrapersonal constraints.

The age group 61-78 had the lowest structural and intrapersonal constraints means but the second lowest interpersonal constraints mean. They scored highest on the statements “The people I know usually don’t have enough time to start a new fitness activity with me”, “I am

more likely to do a new fitness activity if I have transportation”, and “I am more likely to do a new fitness activity that doesn’t require a lot of skill”.

The middle-age group 33-60 scored the lowest in the discriminant function analysis for the statement “I am unlikely to do a new fitness activity if I don’t have time”. The oldest age group scored in the middle on the average time spent at a fitness center each week and the days visited per week.

Recommendations for Further Research and Practice

Further research should include studying middle-age women and their relationship to exercise and their commitment to their fitness center. Women are rarely studied and minority women are studied even less in the leisure field. Longitudinal research would be helpful to gain knowledge on the way women view exercise over their lifespan. Satisfaction, commitment, and constraints were studied for women of different ages in this study but may differ when studying the same women over time.

A goal of leisure professionals is to increase the amount of people that are exercising on a daily basis. The mean scores of time spent working out per visit was 68.79 and the mean for number of days a week was 3.9. This suggests that some of these participants are exercising enough each week to gain health benefits. Research should be expanded to other cities in other parts of the country to compare results. In addition, research should use participants that are not members of fitness centers to compare the amount of exercise they engage in and their feelings about exercise.

In further constraints research real constraints, not perceived constraints, should be studied in order to gain a better understanding of how constraints are affecting people's opportunities to exercise. For example, it would be useful to examine the cost of membership fees and their affect on participation. The constraint list used in this study was 19 items. It may be useful to use a larger list of constraints to understand them in greater detail. Constraint negotiation is not a widely studied subject in leisure services and would add to the discussion on the impact of constraints in this population.

Subjects that should be studied further are minority women. The statistics on this group of women show that the majority of them are not exercising enough to gain health benefits. Dual membership may be researched to determine whether participants are using multiple fitness centers for a variety of exercise opportunities. When studying college populations in further study, level of income should be specified as student's income in order to avoid confusion.

References

- Anderson, E. W., & Sullivan, M.W. (1993). The Antecedents and Consequences of Customer Satisfaction for Firms. *Marketing Science*, 12(2), 125-143.
- Bogle, T., Havitz, M., & Dimanche, F. (1992). Sector Biases in Adults' Recreation Fitness Facility Selections. *Journal of Park and Recreation Administration*. 10(3), 49-74.
- Buchanan, T. (1985). Commitment and Leisure Behavior: A Theoretical Perspective. *Leisure Sciences*, 7(4), 401-418.
- Conn, V. S., Minor, M. A., & Burks, K. J. (2003). Sedentary Older Women's Limited Experience with Exercise. *Journal of Community Health Nursing*, 20(4), 197-208.
- Curry, S. R. (2006) Cranky Consumer: Putting Women's Fitness Clubs Through Paces. *Wall Street Journal*, D.2
- Degges-White, S., & Myers, J. E. (2006). Transitions, Wellness, and Life Satisfaction: Implications for Counseling Midlife Women. *Journal of Mental Health Counseling*, 28(2), 133-150.
- Gahwiler, P., & Havitz, M E. (1998). Toward a Relational Understanding of Leisure Social Worlds, Involvement, Psychological Commitment, and Behavioral Loyalty. *Leisure Sciences*, 20, 1-23.
- Ganesh, J., Arnold., M., & Reynolds, K. (2000). Understanding the Customer Base of Service Providers: an Examination of the Differences Between Switchers and Stayers. *Journal of Marketing*, 64(3), 65-87.
- Guenzi, P., & Pelloni, O. (2004). The Impact of Interpersonal Relationships on Customer Satisfaction and Loyalty to the Service Provider. *International Journal of Service Industry Management*, 15(4), 365-384.
- Gustafsson, A., Johnson, M. D., & Roos, I. (2005). The Effects of Customer Satisfaction, Relationship Commitment Dimensions, and Triggers on Customer Retention. *Journal of Marketing*, 69, 210-218.
- Harrington, M., & Dawson, D. (1995). Who Has it Best? Women's Labor Force Participation, Perceptions of Leisure and Constraints to Enjoyment of Leisure. *Journal of Leisure Research*, 27(1), 4-24.
- Henderson, K. A. (1994). Broadening an Understanding of Women, Gender, and Leisure. *Journal of Leisure Research*, 26(1), 1-7.

- Henderson, K., & Alnsworth, B. (2003). A Synthesis of Perceptions About Physical Activity Among Older African American and American Indian Women. *American Journal of Public Health, 93*(2), 313-317.
- Hess, J., & Story, J. (2005). Trust-Based Commitment: Multidimensional Consumer-Brand Relationships. *Journal of Consumer Marketing, 22*(6), 313-332.
- Homburg, C., Koschate, N., & Hoyer, W. D. (2006). The Role of Cognition and Affect in the Formation of Customer Satisfaction: A Dynamic Perspective. *Journal of Marketing, 70*, 21-31.
- Hultsman, W. (1995). Recognizing Patterns of Leisure Constraints: An Extension of the Exploration of Dimensionality. *Journal of Leisure Research, 27*(3), 228-244.
- Iwasaki, Y. (2004). Examining Relationships Between Leisure Involvement, Psychological Commitment and Loyalty to a Recreation Agency. *Journal of Leisure Research, First Quarter*.
- Jackson, E. (1993). Recognizing Patterns of Leisure Constraints: Results from Alternative Analyses. *Journal of Leisure Research, 25*(2), 129-149.
- Jackson, E. (2000). Will Research on Leisure Constraints Still be Relevant in the Twenty-First Century? *Journal of Leisure Research, 32*(1), 62-68.
- Kruisselbrink, L. D., Dodge, A. M., Swanburg, S. L., & MacLoed, A. L. (2004). Influence of Same-Sex and Mixed-Sex Exercise Settings on the Social Physique Anxiety and Exercise Intentions of Males and Females. *Journal of Sport & Exercise Psychology, 26*, 616-622.
- Kyle, G.T., & Mowen, A.J. (2005). An Examination of the Leisure Involvement-Agency Commitment Relationship. *Journal of Leisure Research, 37*(3), 342-363.
- Kyle, G.T., Mowen, A. J., Absher, J. D., & Havitz, M. E. (2006). Commitment to Public Leisure Service Providers: A Conceptual and Psychometric Analysis. *Journal of Leisure Research, 38*(1), 78-103.
- Liechty, T., Freeman, P. A., & Zabriskie, R. B. (2006). Body Image and Beliefs About Appearance: Constraints on the Leisure of College-Age and Middle-Age Women. *Leisure Sciences, 28*, 311-330.
- Little, D. E. (2002). Women and Adventure Recreation: Reconstructing Leisure Constraints and Adventure Experiences to Negotiate Continuing Participation. *Journal of Leisure Research, 34*(2), 157-177.

- Nadirova, A., & Jackson, E. L. (2000). Alternative Criterion Variables Against Which to Assess the Impacts of Constraints to Leisure. *Journal of Leisure Research*, 32(4), 396-405.
- Pritchard, M. P., Havitz, M. E., & Howard, D. R. (1999). Analyzing the Commitment-Loyalty Link in Service Contexts. *Academy of Marketing Science Journal*, 27(3), 333-348.
- Raymore, L., Godbey, G., Crawford, D., & von Eye, A. (1993). Nature and Process of Leisure Constraints: An Empirical Test. *Leisure Sciences*, 15, 99-113.
- Samdahl, D., & Jekubovich, N. (1997). A Critique of Leisure Constraints: Comparative Analyses and Understandings. *Journal of Leisure Research*, 29(4), 430.
- Searle, M. S., Mactavish, J. B., & Brayley, R. E. (1993). Integrating Ceasing Participation with Other Aspects of Leisure Behavior: A Replication and Extension. *Journal of Leisure Research*, 25(4), 389-404.
- Shaw, S.M. (1994). Gender, Leisure, and Constraint: Towards a Framework for the Analysis of Women's Leisure. *Journal of Leisure Research*, 26(1), 8-22.
- Sinclair, S. L. (2006). A Theoretical and Empirical Study of Objectified Body Consciousness in Women. *Journal of Mental Health Counseling*, 28(1), 48-68.
- Speck, B.J. & Harrell, J. S. (2003). Maintaining Regular Physical Activity in Women: Evidence to Date. *Journal of Cardiovascular Nursing*, 18(4), 282-293.
- Szymanski, D. M., & Henard, D. H. (2001). Customer Satisfaction: A Meta-Analysis of the Empirical Evidence. *Academy of Marketing Science Journal*, 29(1), 16-35.
- Theodorakis, N., Alexandris, K., Rodriguez, P., & Sarmiento, P.J. (2004). Measuring Customer Satisfaction in the Context of Health Clubs in Portugal. *International Sports Journal*, 44-52.
- Webster, J., & Tiggemann, M. (2003). The Relationship Between Women's Body Satisfaction and Self-Image Across the Life Span: The Role of Cognitive Control. *Journal of Genetic Psychology*, 164(2).

APPENDIX A
COVER LETTER AND SURVEY

January 8, 2006

Dear fitness center participants,

I need your assistance! The following survey is part of a research study to gather information for my Master's Degree in Leisure Services at the University of Northern Iowa. The survey will be used to determine fitness center participants' satisfactions levels, commitment to an exercise facility, and constraints to exercising. Please take a few minutes to respond to these questions. The results will be used by management of fitness centers in Cedar Falls to better serve their customers.

The University of Northern Iowa requires that you give your signed agreement to participate in this project. The following information is provided to help you make an informed decision about participating. Your participation is voluntary. As part of this process, I am surveying random participants at 5 fitness centers in Cedar Falls. The participants will be asked to fill out the survey to provide information regarding their experiences at their respective fitness centers. All of your responses and your identity will remain confidential. No individual results will be reported, only statistical aggregates.

Please complete the attached survey. The survey will take approximately five minutes to complete. Your assistance in this project is important and is greatly appreciated. The information that you provide can help the management of the surveyed fitness centers to understand the needs of their patrons. The information obtained will serve as a tool in understanding satisfaction in current customers relating to their commitment to the facility and their constraints to exercising.

If you have any questions regarding this survey you can contact Melissa Dowd
or faculty advisor Dr. Sam Lankford
Thank you very much for your assistance.

Sincerely,

Melissa Dowd, Graduate Student
University of Northern Iowa

Informed Consent

I am fully aware of the nature and extent of my participation in this project as stated as the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement. I am 18 years of age or older.

(Signature of participant)

(Date)

(Printed name of participant)

MEASURING LEVELS OF SATISFACTION, COMMITMENT, AND CONSTRAINTS FOR FITNESS CENTERS IN THE CEDAR VALLEY

The following survey is designed to investigate satisfaction, commitment, and constraints of people exercising in fitness centers. I am a graduate student in Leisure Services at the University of Northern Iowa working on my research project. Please assist me by taking a few moments to fill out this survey. Mark the statements that best apply to you and how you feel. Thank you!

CONSTRAINTS TO LEISURE	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
I am too shy to start a new leisure activity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The people I know live too far away to start new leisure activity with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more likely to do a new leisure activity if the facilities I need to do the activity are not crowded.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more likely to do a new leisure activity that my family would think is alright.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The people I know usually don't have time to start a new leisure activity with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am unlikely to do a new leisure activity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am unlikely to do a new leisure activity that makes me feel uncomfortable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The people I know usually have enough money to begin a new leisure activity with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more likely to do a new leisure activity if I have transportation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more likely to do a new leisure activity that my friends thought was alright.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The people I know usually have too many family obligations to start a new leisure activity with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more likely to do a new leisure activity if I know what is available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more likely to do a new leisure activity that is in keeping with my religious beliefs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The people I know usually know what new leisure activities they could do with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am unlikely to do a new leisure activity if the facilities I need to do the activity aren't convenient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more likely to do a new leisure activity that doesn't make me feel self-conscious.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The people I know usually don't have enough skills to start a new leisure activity with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am unlikely to do a new leisure activity if I don't have time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more likely to do a new leisure activity that doesn't require a lot of skill.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The people I know usually don't have transportation to get to a new leisure activity with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SATISFACTION	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
The facilities are attractive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The facilities are modern.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The facilities are well-designed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The exercise places are clean.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The changing rooms are clean.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There are a wide range of programs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The staff is helpful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The instruction in the session is good.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The fitness instructors are friendly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The instructors are well educated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The participants in the program are friendly to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMITMENT	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
I prefer my fitness center over other public recreation settings/facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compared to my fitness center there are few satisfactory alternatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For the recreation activities that I enjoy most, the	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I enjoy visiting my fitness center more than any other sites.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My fitness center means a lot to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am very attached to my fitness center.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel a strong sense of belonging to my fitness center and its settings/facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have little, if any, emotional attachment to my fitness center and its settings/facilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel my fitness center is a part of me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMITMENT CONTINTUED...	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
I identify strongly with my fitness center.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My fitness centers' attitude toward recreation is similar to my own.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My fitness center shares my values.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My fitness centers' views are similar to my own.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My fitness centers' goals related to recreation are consistent with my own views.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My friends/family would be disappointed if I were to start visiting other settings/facilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I were to stop visiting my fitness center I would lose contact with a number of friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

About You

1) I am Male _____ Female _____ 2) I am _____ years old

3) My household income is

_____ Less than \$10,000 _____ \$10,000 to \$14,999 _____ \$15,000 to \$24,999
 _____ \$25,000 to \$34,999 _____ \$35,000 to \$49,999 _____ \$50,000 to \$74,999
 _____ \$75,000 to \$99,999 _____ \$100,000 or more

4) My level of education is ____ High school or GED ____ Bachelor's Degree ____ Masters or higher

5) Marital status _____ Single _____ Married _____ Divorced or widowed

How much time did you spend working out today? _____ Minutes _____ Hours

Number of days you participate at this fitness center per week? _____

How long have you been a member of this fitness center? _____

Thank you very much! If you have any questions regarding this survey or research project you can contact Melissa Dowd at mdowd@uni.edu.

APPENDIX B
HUMAN PARTICIPANTS DOCUMENTATION

Human Participants Review Committee
UNI Institutional Review Board (IRB)
Office of Sponsored Programs
213 East Bartlett Hall

Date: January 11, 2006

To: Melissa Dowd

From: Helen Harton, Ph.D.
UNI Human Participants Review Committee (IRB)

Title: Measuring Levels of Satisfaction, Commitment, and Constraint for Middle-Age Women
Exercising in Fitness Centers

Re: ID# 06-0115

Your project "Measuring Levels of Satisfaction, Commitment, and Constraint for Middle-Age Women Exercising in Fitness Centers" has been reviewed and determined to be exempt from further review in accordance with federal guidelines 45 CFR 46.101(b). For your project the applicable exempt category referenced in the federal regulations is (b)(2):

Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

You may begin enrolling human research participants in your project. If you modify your project in a way that increases the physical, emotional, social, or legal risk to the participants or you change the targeted participants, you should notify the Human Participants Review Committee in the Office of Sponsored Programs before continuing with the research.

If you have any further questions about the Human Participants Review policies or procedures, please contact me at Helen.Harton@uni.edu, or Anita Kleppe, the IRB Administrator, at 319.273.6148 or anita.kleppe@uni.edu. Best wishes for your project success.

cc: Institutional Review Board
Sam Lankford, Advisor

APPENDIX C
LITERATURE REVIEW MATRIX

Table 12

Literature Review Matrix

	Satisfaction	Retention	Commitment	Involvement	Constraints
Buchanan(1985)	X		X	X	
Bogle, Havitz, & Dimanche (1992)		X	X		
Jackson (1993)					X
Raymore, Godbey, Crawford, & Von Eye (1993)					X
Anderson & Sullivan(1993)	X	X			
Shaw (1994)					X
Henderson (1994)	X				X
Harrington & Dawson (1995)					X
Hultsman (1995)					X
Samdahl & Jekubovich (1997)					X
Gahwiler & Havitz (1998)		X	X	X	
Pritchard, Havitz, & Howard (1999)	X	X	X	X	
Garbarino & Johnson (1999)	X		X		
Ganesh, Arnold, & Reynolds (2000)	X	X	X	X	
Nadirova & Jackson (2000)					X
Szymanski & Henard (2001)	X	X			
Anderson & Sullivan (2001)	X	X			
Little (2002)	X		X	X	X
Webster & Tiggeman (2003)					X
Kriusselbrink, et al. (2004)					X
Theodorakis et al. (2004)	X	X			
Iwasaki (2004)	X	X	X	X	
Guenzi & Pelloni (2004)	X	X	X		
Kyle & Mowen (2005)			X	X	
Hess & Story (2005)	X	X	X		
Gustafsson, Johnson, & Roos (2005)	X	X	X		
Sinclair (2006)					X
Kyle, Mowen, Absher, & Havitz (2006)		X	X	X	
Liechty, Freeman, & Zabriske (2006)	X	X			
Homburg, Koschate, & Hoyer (2006)	X	X			
Total	16	15	13	8	12
Current Study Comparison	Yes	Yes	Yes	Yes	Mixed