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# The Investigation of Client Satisfaction Level Among Older Adult Members of a University Based Fitness Center

Darin Joseph Rauso

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THE INVESTIGATION OF CLIENT SATISFACTION LEVEL AMONG OLDER  
ADULT MEMBERS OF A UNIVERSITY BASED FITNESS CENTER

A Thesis

Submitted to the School of Graduate Studies and Research  
in Partial Fulfillment of the  
Requirements for the Degree  
Master of Science

Darin Joseph Rauso  
Indiana University of Pennsylvania  
August 2016

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Title: The Investigation of Client Satisfaction Level Among Older Adult Members of a University Based Fitness Center

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This study investigated the satisfaction levels of older adult members at the James G. Mill Fitness Center, located in Indiana, Pennsylvania. The modified survey included aspects of a customer satisfaction survey (Theodorakis, Alexandris, Rodriguez, & Sarmiento, 2004). As well as the Service Quality Assessment Scale (Lam, Zhang, & Jensen, 2005). The questionnaire was designed to measure satisfaction level between various service elements.

There has been previous research conducted on measuring satisfaction level of health and fitness clubs. However, little research has been conducted on members of the age of 60 and above, in a university setting.

This study is designed to provide unique research on older adult members' satisfaction level in a university fitness center. For data analyzation, descriptive statistics and chi-square of independence tests were performed. It was found for the demographics that there were no significant differences between gender, as well as membership type.

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## CHAPTER I

### INTRODUCTION

The ability to meet the demands of customer satisfaction is essential for facility managers in the growing competitive fitness industry (Theodorakis, Alexandris, Rodriguez, & Sarmiento, 2004). Research has shown that customer satisfaction is correlated with positive behavioral intentions and customer retention (Backman & Veldkamp, 1995). Customer retention is of the utmost importance in the sport and fitness industry, and Dishman (2001) found that half of individuals who participate in sports drop out in a short period of time. Being able to preserve members is significant to all fitness club managers, and is why competitors in the fitness industry are always developing customer retention strategies. The ability to retain customers is one of the most “critical variables that affect customers’ lifetime profit” (Gupta, Lehmann & Stuart, 2004). Researchers believe that customer retention is the biggest predictor of future profits (Kamakura, Wedel, deRosa & Mazzon, 2003). Customers’ who are satisfied, will continue their memberships with that facility, increasing revenues. In general, the service environment is a factor in the bottom line of profitability of any fitness organization (Macintosh & Doherty, 2007).

Consumer age has been found to have significant curvilinear effect on the amount of money spent on sport and recreational services (Lamb, Asturias, Roberts, & Brodie, 1992). Despite this evidence, little research has been done on service quality relating to clients aged 40 and over. There has been found to be an increase in numbers of older clients in sport, recreation, and leisure activities, and their demand for quality services (Elling, Knoppers, & De Knop, 2001; Vonck, Verte, De Donder, Buffel, De Witte, & Dury, S., 2010). This increase shows the importance of recruiting and retaining older clients in fitness facilities. It is vital for all fitness facilities to understand older adult clients, and tailor to their satisfaction. By researching what’s important to older clients in a fitness center, and their current satisfaction will allow managers to

meet these expectations to increase effectiveness. This study, therefore, examined what is the client satisfaction level among older adult members of a university based fitness center.

### **Research Questions**

1. What is the current overall level of client satisfaction among older adult members of the age of 60 and above, in a university based fitness center?
2. What service elements are members of the age of 60 and above, most satisfied with in a university based fitness center?
3. What aspect of the university fitness center is most important to client satisfaction of the age of 60 and above, in a university based fitness center?
4. What are the differences of customer satisfaction level among males and females of the age of 60 and above, in a university based fitness center?
5. What are the differences of customer satisfaction level among general community members' compared to faculty/staff members of the age of 60 and above, in a university based fitness center?

### **Hypothesis**

1. It will be hypothesized that the members will be 'moderately satisfied' with the university fitness center.
2. It will be hypothesized that the 'Staff' element will receive the highest satisfaction score, when compared to physical facility, workout facility, locker rooms, and social and intellectual elements.
3. It will be hypothesized that 'Price' will be the highest ranked aspect related to client satisfaction.

4. It will be hypothesized that males will tend to be more satisfied when compared to females.
5. It will be hypothesized that general community members will tend to be more dissatisfied when compared to faculty/staff.

### **Definition of Terms**

#### 1. Customer Satisfaction

- In general literature, satisfaction is defined as “a cognitive and affective reaction to a service incident (Oliver, 1980). If the performance of the service fulfills the original needs and expectations, the outcome will be satisfaction (Theodorakis, Alexandris, Rodriguez, & Sarmiento, 2004). Satisfaction is ultimately the overall evaluation of services.

#### 2. Customer Retention

- For the purpose of this study, the ability to maintain clients with a current membership.

#### 3. Service Quality

- A comparison of expectations with performance. The higher the service quality the more satisfied members will be.

#### 4. Fitness Facility

- An area that encompasses exercise equipment for the general purpose of exercise.

#### 5. Fitness Facility Manager

- An individual who coordinates and oversees the daily operations of the fitness facility as well as the staff.

### **Assumptions**

1. It is assumed that the survey used will be appropriate for measuring customer satisfaction of different aspects of the fitness facility.
2. It is assumed that participants will complete the survey honestly, and to the best of their ability
3. It is assumed that the facility surveyed will be a representative sample of university based facilities throughout Pennsylvania.

### **Limitations**

1. The study will only include data from one university based fitness facility
2. The study only included members of the age of 60 or above
3. The results will be based on self-reporting

### **Significance of Study**

This research is very important to facility managers and director teams, to identify and implement plans to better satisfy older clients. The goal of most fitness organization is to make money, and to do that clients need to be satisfied. Knowing the satisfaction level of different aspects of the facility, as well as what is most important to the clients is vital to a thriving organization. Being able to give high quality services to clients is essential to the profitability of an organization, and it enhances customer satisfaction (Mao & Zhang, 2012). As stated above, older clients' participation in exercise and sport is increasing. Profits can be gained by alluring and retaining this target population. Also as stated, fitness facilities in America drop-out rates are very significant. This is why being able to identify current satisfaction level is vital to retaining these members. In university-based facilities in particular, many older clients join because their faculty/staff, retired faculty/staff, or alumni. Because of this it is important for managers

throughout university based fitness centers to determine what the needs and expectations are of older client members. Studies have been limited in the research of satisfaction of older adult clients in a fitness facility, especially in a university based facility (Hyun Soon et al., 2014). Therefore; the purpose of this study is to investigate the client satisfaction level among older adult members of a university based fitness center.

## CHAPTER II

### REVIEW OF LITERATURE

To understand the concept of satisfaction level of older adults in a university based fitness center, different terms should be understood. Aspects of customer satisfaction, service quality, and retention should be discussed before comprehending the current study. Therefore, this chapter shows previous research about customer satisfaction elements, as well as discussion about satisfaction of older adults, demographic influences, and includes scales of measuring satisfaction of members of health and fitness clubs.

#### **Customer Satisfaction**

There are many meanings and various applications to the term satisfaction in literature. Satisfaction has been defines as “a cognitive and affective reaction to a service incident” (Oliver 1980). Satisfaction is also defined in literature as “the positive perceptions or feeling which an individual forms, elicits, or gains as a result of engaging in leisure activities and choices. Important reasons that exist for the use of customer satisfaction by managers to evaluate service performance is it is experiential and unique to the customer (Oliver, 1993). Also, it mediates the relationship between service quality and behavioral intentions (Brady & Robertson, 2001). Customer satisfaction has also been found to influence customer retention, purchase intentions, repeat business, and referral of other customers (Ampofo-Boateng, 2009). Customer satisfaction is essential to know in any business, and is why the current study is being proposed. The university fitness center being studied in this research has many older adult clients, and to know satisfaction or dissatisfaction would be beneficial for the current and future managers of the health club. University fitness centers are unique on any university campus and can often be overlooked in providing the most effective services. For this reason, this study can benefit many



university fitness centers that have a large number of a certain demographic, such as older adults or students.

In a study by (Theodorakis et al., 2004) was to test the satisfaction levels of customers of health clubs in Portugal. The questionnaire given was a 24 item scale, including the elements of facilities, staff attitude, relaxation, social & intellectual, and health/fitness. The conclusions were that in all satisfaction dimensions the members were in general satisfied from the overall services. The dimension of staff had the highest score with a mean of 4.6, and facilities had the lowest score at 4.2. For demographic differences, men tended to be more satisfied when compared to women. In terms of educational groups, participants with the lowest educational background were more satisfied than customers with high school education or above. The research proposed by (Theodorakis et al., 2004) exhibited an effective way to measure customer satisfaction in a fitness facility. The scale administered has been replicated in fitness facilities across the world, and has given managers valuable information to provide effective services. The research was able to provide relevant information on different dimensions of a fitness facility, and was able to differentiate between multiple demographics. This study is relevant to the design of the current study of measuring customer satisfaction.

### **Service Quality**

Service quality is defined as the excellence and superiority of a service, and is a function of the extent of discrepancy between visitors' expectations or desires and their perception (Zeithaml, Parasuraman, and Berry, 1990). The aspect of health and fitness facilities is also vital for sport managers who are trying to sustain and increase their customer base, develop a competitive advantage, and generate sustainable revenue from their customers (Hyun Soon et al., 2014). Providing the highest quality of service is essential to all health and fitness clubs. By

implementing the utmost service quality, members will be satisfied and the majority of businesses will be successful. By measuring the satisfaction of service quality in the current study, the managers of the university fitness center was able to identify what needs implemented to provide great service the older adult members.

Macintosh & Doherty (2007) aimed to study reframing the service environment in the fitness industry. The study stressed the importance of being able to be competitive with other fitness businesses with the awareness of service environment. The results showed that service elements are very meaningful to members. Their perception of locker rooms, programs, equipment, and workout facility were important to their satisfaction. It was found from the open ended portion of the survey that the variety and availability of the fitness equipment was the most important aspect. Also, front desk were significant and that there was an association with members' intent to continue their membership. The research indicates that service elements and corporate values are vital to service environment in the fitness industry. These findings were significant to the fitness industry, and it can be utilized in fitness centers around the world. Based on these results, fitness facilities should be focusing on availability of equipment to make their customer more satisfied.

### **Customer Retention**

Building relationships in organizations is challenging, especially when there are a large number of customers. It has been found that existing customers have years of revenue producing potential, and it has been found that it costs less to retain members than acquire new ones (Ahmad & Buttle, 2004). Retaining customers has become equally and if not more important than finding a new one. Many fitness centers seek strategies to retain customers, and existing members produce more revenue when compared to new customers. The longer the relationship

with an existing customer, the lower the cost. Being able to retain customers is essential for all managers, including the managers of the university fitness center in the current study. Maintain positive relationships, and providing great service quality with the older adult members, they will be more inclined to stay loyal the fitness center.

Dhurup & Ssurujlal (2010) identified salient retention strategies that are applied at commercial health and fitness organizations in customer retention. The subjects included in this study were members of a commercial health and fitness center in South, Central and Northern Gauteng. The questionnaire contained questions on the business profile, as well as a 40 item scale investigating retention strategies. In regard to customer retention, part-time staff may not give the same amount of commitment when compared to full-time staff. The reported retention level of patrons was a 71%. Affordable membership was found to be the most important to renewal of membership, and facility ambience was found to be the least important. A total of 40% of the respondents thought that keeping old customers was of more importance than getting new ones. This study was able to focus solely on what retention strategies are most significant and the importance of keeping existing customers. By being able to focus more on part-time staff giving more commitment to the members, and having an affordable membership, these aspects can help in maintaining current members which is very important in the fitness industry.

The researchers Ferrand, Robinson, & Valette-Florence (2010) identified the intention to repurchase in the health and fitness industry. The study established the relationships between a number of variables and customers' intentions to repurchase their membership. The conclusions were that overall satisfaction did not have a direct effect on intention to repurchase. Overall satisfaction did however have a positive impact on frequency of attendance, which had a positive impact on intention to renew membership. Customer relations from service attributes had a

positive impact on intention to repurchase. Previous purchase behavior had a positive impact on intention to repurchase. For the factor analysis, 7 retention strategies were found to be used to retain customers. These were complaints and performance strategies, competitor strategies, service monitoring strategies, profitability monitoring strategies, marketing communication strategies, resources and incentive strategies, and membership renewal. Finally, the study found a significant negative relationship between perceptions of price and intention to repurchase. The research study described above shows great information on retention in the health and fitness sector. Retention is vital in any organization, and this study gave important findings on the relationships of variables to repurchase a membership. Based on the research by Ferrand, Robinson, & Valette-Florence (2010), satisfaction, customer relations, and purchase behaviors all have an impact on members repurchasing their membership.

### **Customer Satisfaction Demographic Influences**

When measuring customer satisfaction, there are many different demographic variables to take into consideration. Health and fitness clubs vary in size and location throughout the world, and there are different demographics in each facility. By managers being able to identify the target demographic in their facility, they can better provide effective services to this demographic. In the case of the current study, the larger demographic is older adults, which is why it's important to know their satisfaction level as they make up the majority of revenue.

In 2009 Ampofo-Boateng studied the demographic influences in regards to satisfaction with recreational sports facilities and services in Malaysia. Ampofo-Boateng (2009) stressed the importance of customer satisfaction levels in recreational sports facilities, which is very similar to the current study. The survey studied 602 participants, from Petaling Jaya and Shah Alam, Malaysia. A modified satisfaction survey was used, that was developed by Theodorakis et al.,

(2004). There were 21 satisfaction items used on a 5-point Likert-type scale that ranged from 1- 'Strongly Disagree' to 5- 'Strongly Agree'. It was broken into 3 factors, facilities/staff attitude/staff competence (8 items), relaxation/health/fitness (7 items), and skills/variety/accomplishment (3 items). The relaxation/health/fitness factor was the most satisfying, next was facilities/staff attitude/staff competence. Lastly was skills/variety/accomplishment. In regards to demographic differences, males tended to be more satisfied when compared to females in the facilities/staff attitude/staff competence and skills/variety/accomplishment dimensions. The age group of 18-25 year olds recorded the highest level of satisfaction on relaxation/health/fitness dimension. In terms of marital status, there was a higher level of satisfaction on relaxation/health/fitness for single people. For education, tertiary-level education reported having a higher level of satisfaction. For occupation, it was found that government employees, self-employed, and students were found to be more satisfied. The findings of the study by Ampofo-Boateng (2009) showed significant findings in the essence of satisfaction level. The findings suggest that managers and staff should improve on the skills/variety/accomplishment factor, which scored the least. The demographic influences showed that males tend to be more satisfied than females, and is something that will be measured in the current study. These satisfaction of different demographic influences shows beneficial information of various groups, and is something the researcher will aim to identify.

In another study measuring demographic influences Afthinos, Theodorakis, & Nassis, (2005) measured customers' expectations of service in Greek fitness centers in regards to gender, age, type of sport center, and motivation differences. The researchers aimed to identify the aspects of service delivery deemed to be most important by the users of Greek fitness centers. Also, to examine whether their desires differ according to the type of fitness center they use

according to certain demographics and motivation patterns. The research was gained from six fitness centers which were located in Athens, Greece. The instruments used were QUESC which had 43 items that measured service quality in sport centers. Significant results found from this research were that most elements of facilities were considered to be 'quite important' or 'highly important'. The element of 'cleanliness' was found to be the most important aspect of service. The least important aspect was 'provision of snack food'. In terms of core services, the highest-ranked was 'professional knowledge', 'responsibility', and 'courtesy of employees'. In comparison of men and women, gender was found to be a significant factor in desires of service quality and differences in expectations. Women wanted fitness centers with more available space, a convenient schedule, and variety of sports. In regards to men, they desired provision of membership packages, the ability to meet people and bring guests, and provision of snacks. Older customers of the age of 60 and above found the aspect of staff responsibility to be more necessary than younger counterparts. Customers of private fitness centers desired modern facilities, helpful staff, and consistent services. Public fitness center members desired convenience in transportation. The findings were significant in regards to the most desired service aspects of customers of fitness centers in Greece are tangible elements of the facility, attitudes and abilities of staff members, cost of participation, and programming and scheduling. Gender and type of fitness center also affected customers' desires significantly. This research should help managers of fitness facilities obtain information, take action to improve service quality, and establish standards of performance to address needs of customers. These findings were relevant for sport and recreational facilities looking to raise their customer satisfaction levels. The results show who should be targeted and what should be done to cater to certain demographics.

Women also make up a large demographic in health and fitness clubs. Szumilewicz (2011), aimed to find the most important influences affecting women's choice of a fitness club and to show that a fitness instructor is one of the significant factors in the decision making process. The instructors and participants completed a questionnaire, and for why women select a fitness club 17 factors were used. These included aspects such as high qualified instructors, high quality of services, high standard of equipment, and location. The results found that the majority of both respondents rated four variables the highest, which are all related to fitness instructors' professional training and way of leading exercises. For the participants, the factors of high quality of service, highly qualified instructors, and the sessions are fun, and nice atmosphere were rated the most important. The elements of 'the sessions are fun' and 'nice atmosphere' are two factors in the women's choice of a fitness club of the highest ranking of participants as well as instructors. Women were shown to have significantly less interest in high standard of equipment, prices, and good reputation of the club. The factor of wide range of services was found to be more important to fitness participants than instructors. From this research, it is important to know to understand and identify the woman demographic in the health and fitness industry. By knowing and understanding what makes women choose a fitness facility, managers can adapt to these needs to recruit and retain women as customers. In the current study, there is a vast majority of older adult women, and the findings from the research found above is very beneficial of knowing the thought process of women in health and fitness clubs.

### **Role of Emotions/Psychological Commitment on Customer Satisfaction**

Pedragosa, Biscaia, & Correia (2015) stated that previous studies suggest that consumer satisfaction should take into account the emotions that are experienced during purchasing. Being able to highlight that satisfaction involves emotions in purchasing is very important. Pedragosa,

Biscaia, & Correia (2015) researched the role of emotions on consumers' satisfaction within the fitness context and aimed to examine the relationship between fitness consumers' emotions and overall satisfaction. The hypothesis proposed for this study were consumers overall satisfaction is negatively influenced by negative emotions experienced during purchasing episodes. The second hypothesis was that positive emotions experienced by consumers during purchasing episodes have a positive influence on overall satisfaction levels. The participants were asked to list emotions experienced in just-finished physical activity, and the form was given at a fitness center in Lisbon, Portugal. The second part was a pre-test conducted at the same fitness center, with questionnaires distributed. The third step was hypothesis-testing, the survey consisted of questions to assess positive and negative emotions, as well as demographic questions. The results of this study were that purchasing episodes can trigger positive and negative emotions. Each emotion showed different roles on post-purchase reactions and this show the emotions can inhibit or enhance the consumers' thoughts of the service. Negative emotion was found to have a negative impact on overall satisfaction, which is why managers should minimize these negative emotions. In relation, positive emotions found to have a positive impact on overall satisfaction. The researchers (Pedragosa et al., 2015) explained that these positive emotions are found from consumers' gratifying experiences, which is why triggering positive emotions in fitness centers is vital. The findings in this study show that the emotional value of members of fitness centers should be taken into account by managers looking to satisfy customers and have high rates of customer retention. Being able to highlight that satisfaction involves emotions in purchasing is very important, and should be known by the managers in the current study of the older adult members.



Another research study in regards to emotions is found by Bodet (2012) who aimed to test the mediation role of resistance to change, considering psychological commitment, between consumers' satisfaction, perceived value, involvement, identification, informational and volitional processes, and behavior loyalty to a fitness organization. It was found that satisfaction, perceived value, position involvement, informational complexity, and involvement were positively associated with resistance to change. Enduring involvement was found to have no relative significance. It was concluded that the more customers are satisfied, the more they perceive value as being positive, the more they are educated on their particular sport club, and the more they are involved and find pleasure in activity, the more likely they are to resist change. This study was a major contribution to the idea of customer loyalty, retention, and satisfaction in the fitness industry. By being able to raise customer satisfaction, educating and involving members, they are found to stay loyal. The findings can be utilized for sport managers throughout the world to increase membership and retention rates.

The research proposed by (Efi & Anastasia, 2013) "Does satisfaction affect a member's psychological commitment to a fitness center?" the purpose was to examine whether satisfaction and or non- satisfaction may be used as a predictor of psychological commitment. It also investigated whether satisfaction, non-satisfaction, and psychological commitment to fitness service providers may differentiate between female and male participants. The conclusions were that the respondents were moderately satisfied with their membership. They seemed to be more dissatisfied than satisfied. It was found that if members' satisfaction increased their psychological commitment with increase as well. In terms of demographics, women tended to be more dissatisfied with the fitness club when compared to men. Each fitness club should examine the procedures used to keep members, develop customer service programs, train its staff, identify

those who are dissatisfied, and initiate new programs to ensure customer retention. Psychological commitment is an important factor, and should be considered and identified in fitness clubs.

### **Customer Satisfaction, Service Quality & Behavioral Intentions**

Service quality is stated to being one of the key factors that affect profitability, and it is necessary to understand customers' assessment of service quality, customer satisfaction, and repurchase intention, as well as the relationship between these core factors (Argan, Tokay, Argan, Kose, & Soner, 2015). In an extensive research study (Argan et al., 2015) measured the relationship between fitness-related quality, satisfaction and intention. The researchers stressed the importance of service quality in fitness organizations. The study he proposed investigated the role of fitness-related quality in shaping satisfaction and intention. The study was quantitative in nature and used a questionnaire and convenience sampling with members of a private fitness center of Eskisehir, Turkey. The survey administered had 24 items related to service quality, and the second part was the scale of satisfaction and intention. The third part of the questionnaire was designed to collect reasons of fitness participation and demographic characteristics. The results were that the factors relating with fitness service quality could be examined in these five dimensions (Facilities, Personnel, Reliability, Empathy, and Accessibility and Maintenance). There was a strong and statistically significant positive effect of fitness service quality on the aspect of satisfaction. Fitness-related service quality was found to have a meaningful relationship among satisfaction. In terms of the success of a fitness center, enforcement and renewal of current services are considered important. The findings can serve purpose for the organizational leadership of fitness facilities everywhere. By the result that fitness service quality has a strong positive effect of satisfaction is very significant. Establishing professional service quality is essential to raising satisfaction as proposed in this study.

Additional research in the terms of satisfaction, service quality, and behavioral intentions was found by Gonzalez & Brea (2005). The researchers studied the investigation of the relationship among service quality, customer satisfaction and behavioral intentions in Spanish health spas. They aimed to show how perceived quality is related to behavioral intentions by analyzing customer satisfaction. They wanted to develop a better understanding of service quality, satisfaction, and behavioral intentions and explain the relationships. The hypothesis proposed by the researchers are there will be a positive relationship between perceived quality and satisfaction. Perceived service quality will be an antecedent of satisfaction, and satisfaction will be an antecedent of perceived service quality. A questionnaire was developed, and contained description of the socioeconomic profile (1), perceived service quality using SERVQUAL (2), satisfaction (3), and behavioral intentions (4). The survey was given at 12 different spa resorts in Spain. The findings of this research are that service quality is an antecedent for satisfaction. The opposite of this relationship showed to have no significance. It was also confirmed that service quality is not the only element to determine customer satisfaction because it only represented 55% of the variability. It was found that satisfaction has a positive and significant influence on behavior intentions. Satisfaction also develops a mediating role between service quality and behavioral intentions. Service quality was found to have a positive influence on behavior intentions. These results are significant for health spas but also the university fitness center in the current study, as well as any health/fitness organization. Seeing what elements have an effect on each other is beneficial to raising customer satisfaction level. By understanding and interpreting this research study, managers can use it as a tool for their health club. This research study showed a great in-depth analysis of service quality, customer satisfaction, and behavioral intentions.

## **Customer Satisfaction of Older Adults**

Older adults make up a large number of many health and fitness clubs around the world. Many older adults are joining fitness clubs for the purpose of becoming healthier in the latter stages of their life to increase their life span. By being able to examine what makes this demographic satisfied in health and fitness clubs, facilities can increase their economic profitability, and increase the quality of life of these members.

Hyun Soon, Zhang, Dae Hyun, Chen, Henderson, Min, & Haiyan (2014) proposed examining the structural relationships in the areas of service quality, perceived value, customer satisfaction, and behavioral intention. The survey was administered at a sport and fitness center in Seoul, South Korea. The survey given contained 55 items, 28 of those service quality items were from Service Quality Assessment Scale. This scale contained staff, program, locker room, physical facility, and workout facility. There were three customer perceived value items, three repurchase retention items, four customer satisfaction items, and ten complaint behavior items. The significant findings were that service quality had a direct effect on perceived value which had indirect and direct effects on repurchase intention. The aspect of service quality also had a direct effect on customer satisfaction, but not on repurchase intention. Perceived value ended up having a direct effect on customer satisfaction and repurchase intention. Ultimately, customer satisfaction was found to have a positive relationship between consumer loyalty and psychological commitment. This research showed the unique aspect of measuring five different consumer behavior constructs, in older adult members. The study of (Hyun Soon et al., 2014) study is similar to the current study of basing the research on the age range of 60 and above. The current study will also include parts of the instrument used by (Hyun Soon et al., 2014), the

Service Quality Assessment Scale. The research provided valuable information in regards to consumption of older adult members in a fitness facility.

Da Silva Salin, Franck Virtuoso, Noronha Nepomuceno, Greice Weiers, & Zarpellon Mazo, (2014) researched the perception of older adults in terms of the motivation for entry and performance, satisfaction, and suggestions regarding the provided services. The Brazilian Ministry of Health implemented the Health Fitness Program in the public health system to promote population health. The results found were that older adults performing exercise were mostly motivated by intrinsic factors. The pursuit of health was found to be the most important intrinsic factor. In regards to extrinsic factors, the encouragement of other people was the main reason to join. The majority of older adults were found to be satisfied with the services provided. A total of 54% gave a rating of excellent and 2.5% gave a very poor rating. The main suggestions were different times and increase the number of activities offered. In regards to the infrastructure, the majority of older adults were satisfied. A total of 36.2% gave an excellent rating, and 1.2% gave a very poor rating. Suggestions were to install different equipment and covered facilities. The findings of this study provide important results to measuring satisfaction level of older adults. There is importance to analyze the satisfaction of older adults in order to evaluate routines and improve outcomes. By identifying the extent of older adult satisfaction in terms of service improvement, you can improve participant adherence (Da Silva Salin et al., 2014). Facility managers of any type of health and fitness club can benefit from this research by identifying various motivation factors, satisfaction level, and suggestions in regards to older members in fitness clubs. This proposed research correlates with the current study, and has similar elements in the aspect of customer satisfaction studied in a university fitness center.

## **Customer Satisfaction in Campus Recreation Settings**

Campus recreation facilities and activities are abundant around the world, and is why measuring the satisfaction level is vital. On-campus recreation centers are an indispensable component of student services. Shonk, Carr, & De Michele (2010) explained that campus recreation settings are destination points on college campuses, and they have many beneficial qualities for people on campus. It is also stated that service quality is vital in campus recreation settings because improved service results in higher use, higher satisfaction, and increased retention rates.

Osman, Cole, & Vessell (2006) examined the role of perceived service quality in predicting user satisfaction and behavioral intentions in a campus recreation setting. The research was conducted because on campus recreation centers are an indispensable component of student services. The objectives were first to measure college students' perceptions of a campus recreation center's service quality, next was to examine the extent to which these perceptions influenced satisfaction levels. Lastly it examined the influence of service quality perceptions and satisfaction on users' future behavioral intentions. For the significant findings, staff competency was ranked the highest, operations quality was ranked the lowest. It was also found that staff competency and users' overall satisfaction did not have significant influence on members' future re-use intentions. The ambience of the facility and operations quality were shown to be a significant predictor of members re-use intentions. Satisfaction was shown to have significant influence on member's intentions to recommend the recreation center to their friends. The data for this research study was collected using an electronic survey of all campus faculty and undergraduate student recreational users of a Middle Atlantic university of the United States. The participants were asked to answer a 50 item questionnaire, and 39 of these items were used from

a modified version of the Scale of Service Quality in Recreational Sports. The results of this study confirm that service quality leads to user satisfaction. The findings are significant for management personnel of recreation centers in a university setting. Management of these types of services is aiming to improve the quality of services, because it will increase the intention for them to return. It is also important because of budget cuts that face many colleges/universities. Managers can show accountability, effectiveness, efficiency, and overall success by conducting a similar study.

## CHAPTER III

### METHODOLOGY

#### **Introduction**

The purpose of this study is to investigate the satisfaction level of older adult members in a university based fitness center. This study also aimed to discern what element of a university based fitness center is most important to satisfaction, as well as differences of gender and membership type. This chapter will provide information regarding participants, instrument, data collection procedures, and statistical analysis.

#### **Participants**

The participants in this research study are current members of the James G. Mill Fitness Center, at the Indiana University of Pennsylvania. For age range, participants that were of the age 60 and above were included in the study. Non-members of the James G. Mill Fitness Center, as well as participants below the age of 60 were excluded in the study. Participants aged 60 and older are classified as older adults in this study.

#### **Recruitment Strategies**

During regular hours of the James G. Mill Fitness Center at the Indiana University of Pennsylvania, adult members were identified through the membership software, once they checked-in. Staff members handed out the survey to all interested members, with a cover letter (Appendix A) attached stating what the research is about and their participation in the study. They were given prior to the members' workout, so they could answer in a relaxed state. The survey took approximately 10-15 minutes to complete. The members' dropped the completed survey anonymously, in the drop-box provided in the fitness center. The researcher collected the



surveys each morning and file them in a secure place. Based on the age demographic, participants were included or excluded for further research.

### **Instrument**

Customer satisfaction was measured using a survey which has elements from two different researchers. The survey included aspects of a customer satisfaction survey developed by (Theodorakis et al., 2004), as well as the Service Quality Assessment Scale (Lam et al., 2005) (Appendix B). The first portion of the survey included demographics. The section will identify 'Gender', 'Age Range', 'Time of Day', and 'Type of Membership'. The second portion of the survey are different questions in regard to 6 service elements with a 7 Point Likert-Scale design. The service elements 'Staff', 'Locker Room', 'Physical Facility', and 'Workout Facility' will range from 1 (Very dissatisfied) to 7 (Very satisfied). These elements are developed from the Service Quality Assessment Scale (Lam et al., 2005). The alpha reliability found was 'Staff' ( $\alpha = .93$ ), 'Locker Room' ( $\alpha = .91$ ), 'Physical Facility' ( $\alpha = .87$ ), and 'Workout Facility' ( $\alpha = .90$ ). The service elements 'Health-Fitness', and 'Social & Intellectual' will range from 1 (Strongly disagree) to 7 (Strongly agree), and were developed from the customer satisfaction survey (Theodorakis et al., 2004). The content validity was found by two sport scientists and sport center managers who proofread the instrument. Results of the alpha internal consistency reliability were 'Health-Fitness' ( $\alpha = .90$ ), and 'Social & Intellectual' ( $\alpha = .89$ ). All of the elements included are 'Staff' (7 items), 'Physical Facility' (6 items), 'Workout Facility' (7 items), 'Health-Fitness' (3 items), and 'Social & Intellectual' (5 items). The third portion of the survey is a ranking system on different aspects of overall fitness facilities. The participants were asked to rank what aspects of a fitness facility are most important to least important in regards to their satisfaction. These aspects were 'Price', 'Equipment', 'Amenities', 'Location', and

‘Atmosphere’. The fourth section is an open-ended where members can give comments or suggestions in relation to their satisfaction in the James G. Mill Fitness Center.

### **Data Collection**

Approval of this study was obtained from Indiana University of Pennsylvania Institutional Review Board. During regular hours, members were identified through the membership software, once they check-in. The staff members of the James G. Mill Fitness Center, located at the Indiana University of Pennsylvania, handed out the survey with the attached cover letter explaining their participation in the study. The surveys were handed out by staff members prior to the members’ workout, so they could answer in a relaxed state. The members’ dropped the completed survey anonymously, in the drop-box provided in the fitness center. The researcher collected the surveys each morning and filed them in a safe place.

### **Statistical Analysis**

The research design is descriptive, with quantitative elements. The survey included aspects of a customer satisfaction survey developed by (Theodorakis et al., 2004), as well as the Service Quality Assessment Scale (Lam et al., 2005). In the current study, the independent variable included gender, and membership type. The dependent variable was the members’ satisfaction level. Descriptive statistics, including means, standard deviations, and frequencies were used to evaluate the satisfaction levels of the members. A chi-square of independence test was used from SPSS version 23 to compare the various demographic differences in regards to the satisfaction levels of gender and membership type.

## CHAPTER IV

### ANALYSIS AND RESULTS

The purpose of this study was to investigate the client satisfaction level among older adult members of a university based fitness center. The following is the research questions addressed in the current study:

1. What is the current level of client satisfaction among older adult members of the age of 60 and above, in a university based fitness center?
2. What service elements are members of the age of 60 and above, most satisfied with in a university based fitness center?
3. What aspect of the university fitness center is most important to client satisfaction of the age of 60 and above, in a university based fitness center?
4. What are the differences of customer satisfaction level among males and females of the age of 60 and above, in a university based fitness center?
5. What are the differences of customer satisfaction level among general community members' compared to faculty/staff members of the age of 60 and above, in a university based fitness center?

#### **Response Rate**

The primary investigator distributed a total of 80 surveys, to members of the James G. Mill Fitness Center, located at IUP. Of the total 80 surveys distributed, 90% ( $n = 72$ ) were completed and returned. However, after excluding for members under the age of 60, 76.3% ( $n = 55$ ) were of the age of 60 and above, and were included in the study.

## Demographic Information

### Gender

Of the 55 participants who were included in the study, 58.2% ( $n = 32$ ) were male, and 41.8% ( $n = 23$ ) were female. (See Table 1).

Table 1

*Output of Gender Statistics*

	Frequency	Percent	Valid Percent
Valid Male	32	58.2	58.2
Female	23	41.8	41.8
Total	55	100.0	100.0

### Age

Information in regards to the age statistics for the current study are listed in Table 2 and Table 3. It was found that mean age was ( $M = 67.18$ ), and the age of 60 ( $n = 9$ ) and 65 ( $n = 5$ ) occurred most frequent. Table 3 shows a minimum age of 60 ( $n = 9$ ) to a maximum age of 86 ( $n = 1$ ). The most frequent age was at age 60 with 16.4% ( $n = 9$ ), and the study had an overall mean of 67.18.

Table 2

*Output of Age Statistics*

N	Valid	55
	Missing	0
Mean		67.1818
Median		66.0000
Mode		60.00
Std. Deviation		5.70929
Minimum		60.00
Maximum		86.00

Table 3

*Age Frequency*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60.00	9	16.4	16.4	16.4
	61.00	2	3.6	3.6	20.0
	62.00	3	5.5	5.5	25.5
	63.00	2	3.6	3.6	29.1
	64.00	3	5.5	5.5	34.5
	65.00	5	9.1	9.1	43.6
	66.00	4	7.3	7.3	50.9
	67.00	3	5.5	5.5	56.4
	68.00	4	7.3	7.3	63.6
	69.00	1	1.8	1.8	65.5
	70.00	4	7.3	7.3	72.7
	71.00	1	1.8	1.8	74.5
	72.00	3	5.5	5.5	80.0
	73.00	5	9.1	9.1	89.1
	74.00	1	1.8	1.8	90.9
	75.00	1	1.8	1.8	92.7
	76.00	1	1.8	1.8	94.5
	77.00	1	1.8	1.8	96.4
	78.00	1	1.8	1.8	98.2
	86.00	1	1.8	1.8	100.0
	Total	55	100.0	100.0	

## Time of Day

The time of day is explained in Table 4, and is categorized as what time the participant exercised in the fitness center. In the time slot of 11am-1pm, 45.5% ( $n = 25$ ) of participants attended. The time slot of 5:30am-8am occurred second most frequent with 40.0% ( $n = 22$ ) participants. Lastly, the 4pm-9pm time slot occurred the least with 14.5% ( $n = 8$ ) participants.

Table 4

<i>Time of Day</i>			
		Frequency	Percent
			Valid Percent
Valid	5:30-8	22	40.0
	11-1	25	45.5
	4-9	8	14.5
	Total	55	100.0

## Membership

In this study, there were two membership types included in the study. The first is General Community, which consists of members who have no affiliation with the Indiana University of Pennsylvania. The second membership type is Faculty/Staff, which includes current and retired faculty/staff members of the Indiana University of Pennsylvania. The membership type Faculty/Staff made up 63.6% of the population ( $n = 35$ ). General Community membership type consisted of 36.4% ( $n = 20$ ) as displayed in Table 5.

Table 5

*Output for Membership Type*

	Frequency	Percent	Valid Percent
Valid General	20	36.4	36.4
Community			
Faculty/Staff	35	63.6	63.6
Total	55	100.0	100.0

**Overall Satisfaction Score**

The following is the first research question of the current study: What is the current overall level of client satisfaction among older adult members of the age of 60 and above, in a university based fitness center?

In order to examine the current, overall level of client satisfaction between every participant, descriptive statistics were run (see Table 6).

Table 6

*Output for Overall Mean Satisfaction Score*

N	Valid	55
	Missing	0
Mean		6.3888
Median		6.5056
Std. Deviation		.45604

Among the 55 participants that were 60 years and older included in the study, the overall total mean score came to be 6.3888. This was found by using descriptive statistics, which ran the overall mean for all 28 survey questions, for each participant. The Likert Scale established in this study (1=Very Dissatisfied, 7=Very Satisfied) indicates that the members of the James G. Mill

Fitness Center at the Indiana University of Pennsylvania are ‘Moderately Satisfied’ (6=Moderately Satisfied).

### Satisfaction Level of Service Elements

The following is the second research question of the current study: What service elements are members of the age of 60 and above, most satisfied with in a university based fitness center?

The service elements included in this study are as follows: Staff (7 items), Physical Facility (6 items), Workout Facility (7 items), Locker Rooms (5 items), Health-Fitness (3 items), and Social and Intellectual (5 items). Each service element is important in any health and fitness club, and this question aimed to investigate how satisfied the older adult members of the James G. Mill Fitness Center were overall with each element, in regards to the mean score (see Figure 1).

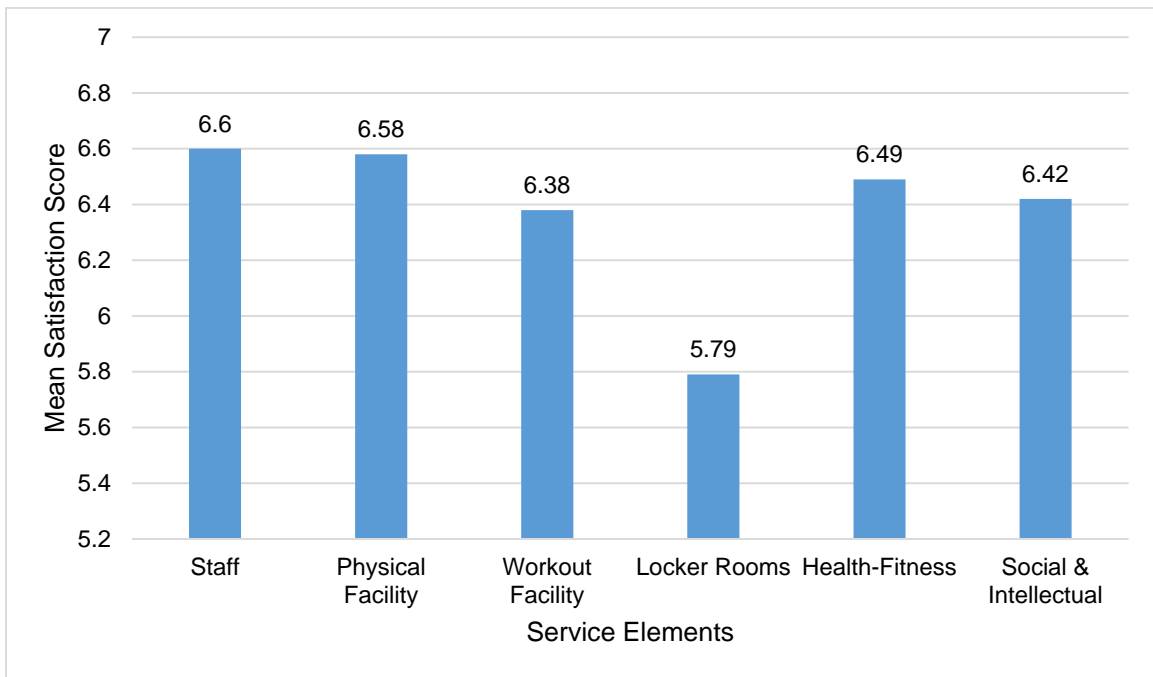


Figure 1. Mean satisfaction scores for the service elements.



As shown in the table above, Staff ( $M = 6.6$ ) had the highest overall mean satisfaction score. Next was Physical Facility ( $M = 6.58$ ), Health-Fitness ( $M = 6.49$ ), Social and Intellectual ( $M = 6.42$ ), Workout Facility ( $M = 6.38$ ), and Locker Rooms ( $M = 5.79$ ) was the lowest overall mean score. In regards to the scale given in the study, Staff, Physical Facility, and Health-Fitness, fell in the category of ‘Very Satisfied’. The elements of Social and Intellectual, Workout Facility, and Locker Rooms were in the category of ‘Moderately Satisfied’.

### **Fitness Facility Aspects**

The following is the third research question of the study: What aspect of the university fitness center is most important to client satisfaction of the age of 60 and above, in a university based fitness center?

This research question aimed to examine five different facility aspects including price, equipment, amenities, location, and atmosphere. The survey asked the participants to rank the fitness facility aspects from (1=Most Important, 5=Least Important) in regards to importance to them in a fitness facility. The question was proposed by the primary investigator to determine what is most important to older adult members in a fitness facility. The question proposed has no association with the James G. Mill Fitness Center at IUP, just strictly in terms of importance to see what management of health and fitness clubs should focus on when trying to recruit and retain older adult members.

Table 7 and Figure 2 explain what fitness facility aspect the older adult members feel is most important to them, and therefore selecting Ranking 1. Of the total population, 32.7% ( $n = 18$ ) chose the fitness facility aspect to be of ‘Equipment’ to be of most importance to them, with ‘Price’ being 25.5% ( $n = 14$ ).

Table 7

*Output for Ranking 1 of Fitness Facility Aspects*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Price	14	25.5	26.9	26.9
	Equipment	18	32.7	34.6	61.5
	Amenities	3	5.5	5.8	67.3
	Location	10	18.2	19.2	86.5
	Atmosphere	7	12.7	13.5	100.0
	Total	52	94.5	100.0	
Missing	System	3	5.5		
Total		55	100.0		

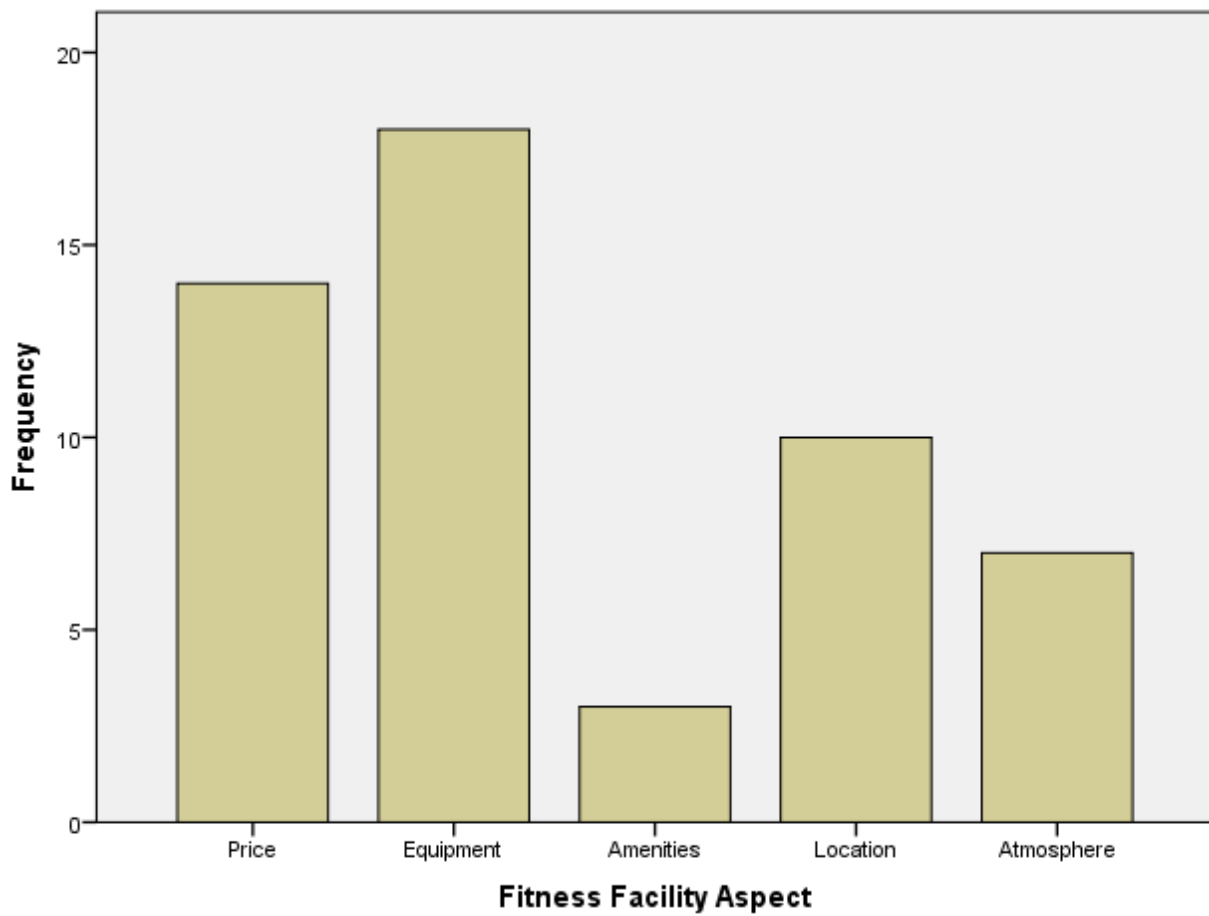


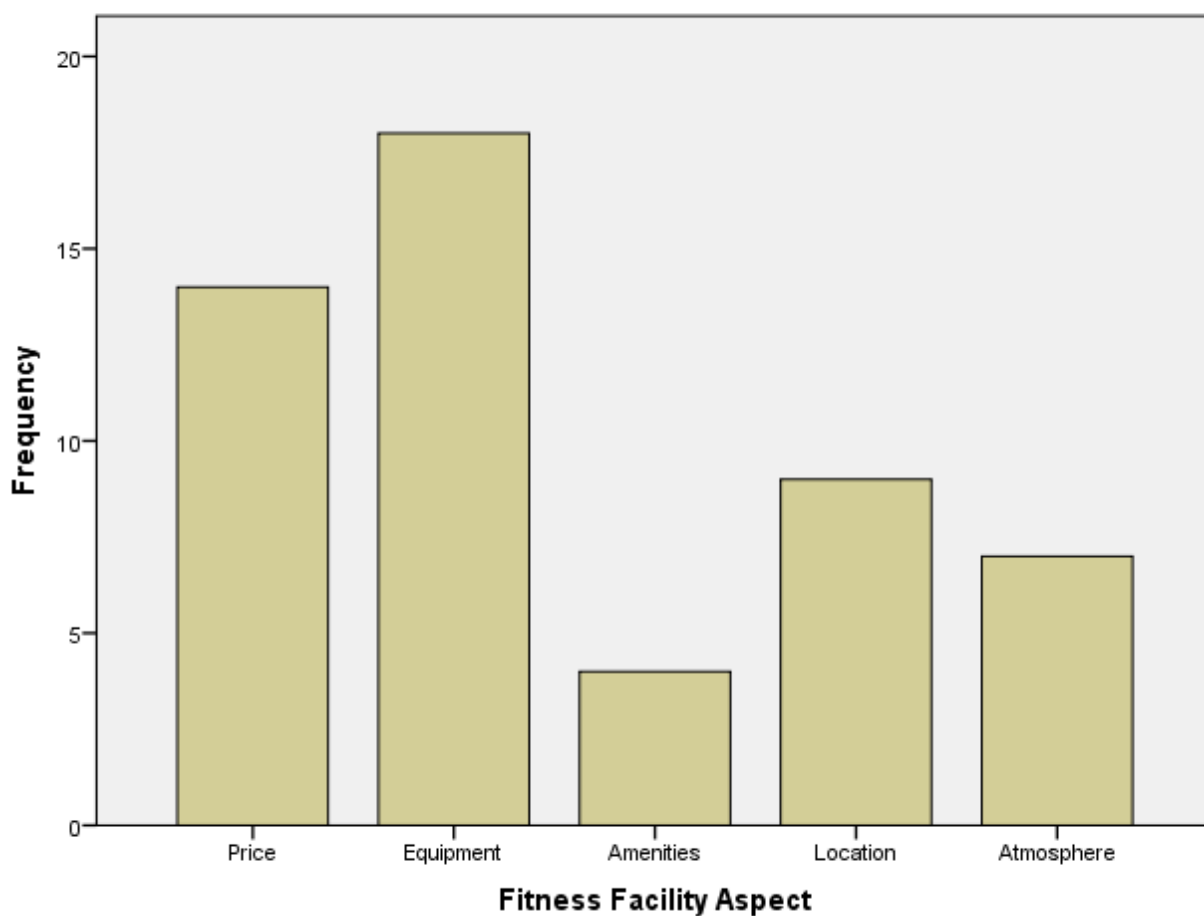
Figure 2. Frequency of each fitness facility aspect for Ranking 1.

Table 8 and Figure 3 explain what fitness facility aspect is of next or second most important to them out of the five aspects. For Ranking 2, the fitness facility aspect of ‘Equipment’ 32.7% ( $n = 18$ ) was chosen the most often, as so in Ranking 1. The aspect of ‘Price’, 25.5% ( $n = 14$ ) was chosen to be the next of highest importance. Judging from these results, it should be noted that the fitness facility aspects of ‘Equipment’ and ‘Price’ are seen to be more important to older adult members of a fitness facility.

Table 8

*Output for Ranking 2 of Fitness Facility Aspects*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Price	14	25.5	26.9	26.9
	Equipment	18	32.7	34.6	61.5
	Amenities	4	7.3	7.7	69.2
	Location	9	16.4	17.3	86.5
	Atmosphere	7	12.7	13.5	100.0
	Total	52	94.5	100.0	
Missing	System	3	5.5		
Total		55	100.0		



*Figure 3.* Frequency of each fitness facility aspect for Ranking 2.

Table 9 and Figure 4 provide frequency output for Ranking 3. For Ranking 3, 27.3% ( $n = 15$ ), the older adult members chose the fitness facility aspect of ‘Location’ to be of the third most important to them. From these results, ‘Location’ is found to be important when compare with all five fitness facility aspects, but found not to be as important as the facility aspects of ‘Equipment’ and ‘Price’.

Table 9

*Output for Ranking 3 of Fitness Facility Aspects*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Price	11	20.0	21.2	21.2
	Equipment	9	16.4	17.3	38.5
	Amenities	7	12.7	13.5	51.9
	Location	15	27.3	28.8	80.8
	Atmosphere	10	18.2	19.2	100.0
	Total	52	94.5	100.0	
Missing	System	3	5.5		
Total		55	100.0		

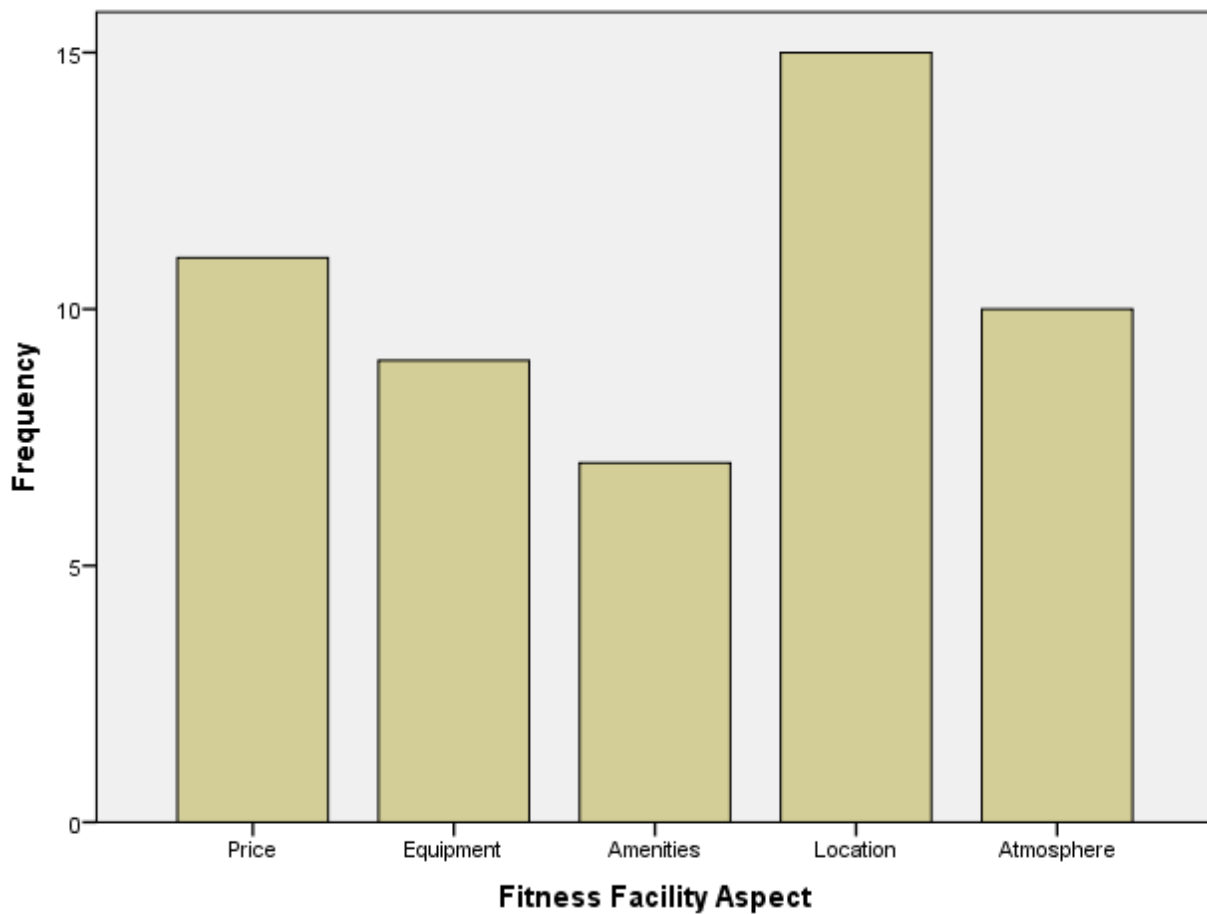


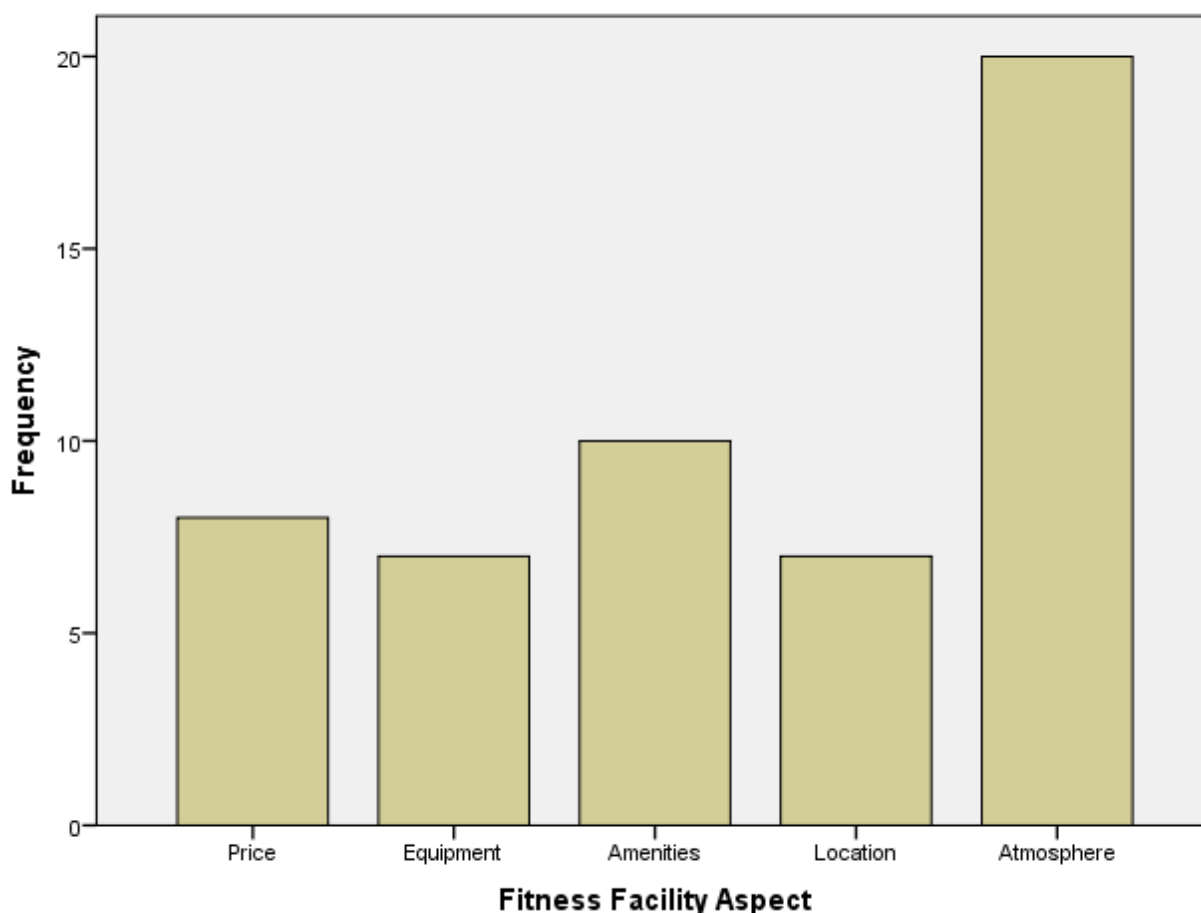
Figure 4. Frequency of each fitness facility aspect for Ranking 3.

Table 10 and Figure 5 explain the frequency output for Ranking 4. It was found that 36.4% ( $n = 20$ ) of older adult members selected the fitness facility aspect of ‘Atmosphere’ to be of the fourth most importance to them. With these findings, it can be explained that the fitness facility aspect of ‘Atmosphere’ is show to be of next to last in order of importance when compared to all of the fitness facility aspects.

Table 10

*Output for Ranking 4 of Fitness Facility Aspects*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Price	8	14.5	15.4	15.4
	Equipment	7	12.7	13.5	28.8
	Amenities	10	18.2	19.2	48.1
	Location	7	12.7	13.5	61.5
	Atmosphere	20	36.4	38.5	100.0
	Total	52	94.5	100.0	
Missing	System	3	5.5		
Total		55	100.0		



*Figure 5.* Frequency of each fitness facility aspect for Ranking 4.

Table 11 and Figure 6 show the frequency output for Ranking 5. As mentioned previously, the ranking scaled from (1:Most Important, 5:Least Important). It was found that for Ranking 5, 50.9% ( $n = 28$ ) of older adult members chose the fitness facility aspect of ‘Amenities’ to be of least importance to them. The fitness facility of ‘Equipment’, was not chosen by any of the participants for Ranking 5. This further explains that ‘Equipment’, out of all fitness facility aspects, was never the least important to any participant.

Table 11

*Output for Ranking 5 of Fitness Facility Aspects*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Price	5	9.1	9.6	9.6
	Amenities	28	50.9	53.8	63.5
	Location	11	20.0	21.2	84.6
	Atmosphere	8	14.5	15.4	100.0
	Total	52	94.5	100.0	
Missing	System	3	5.5		
Total		55	100.0		

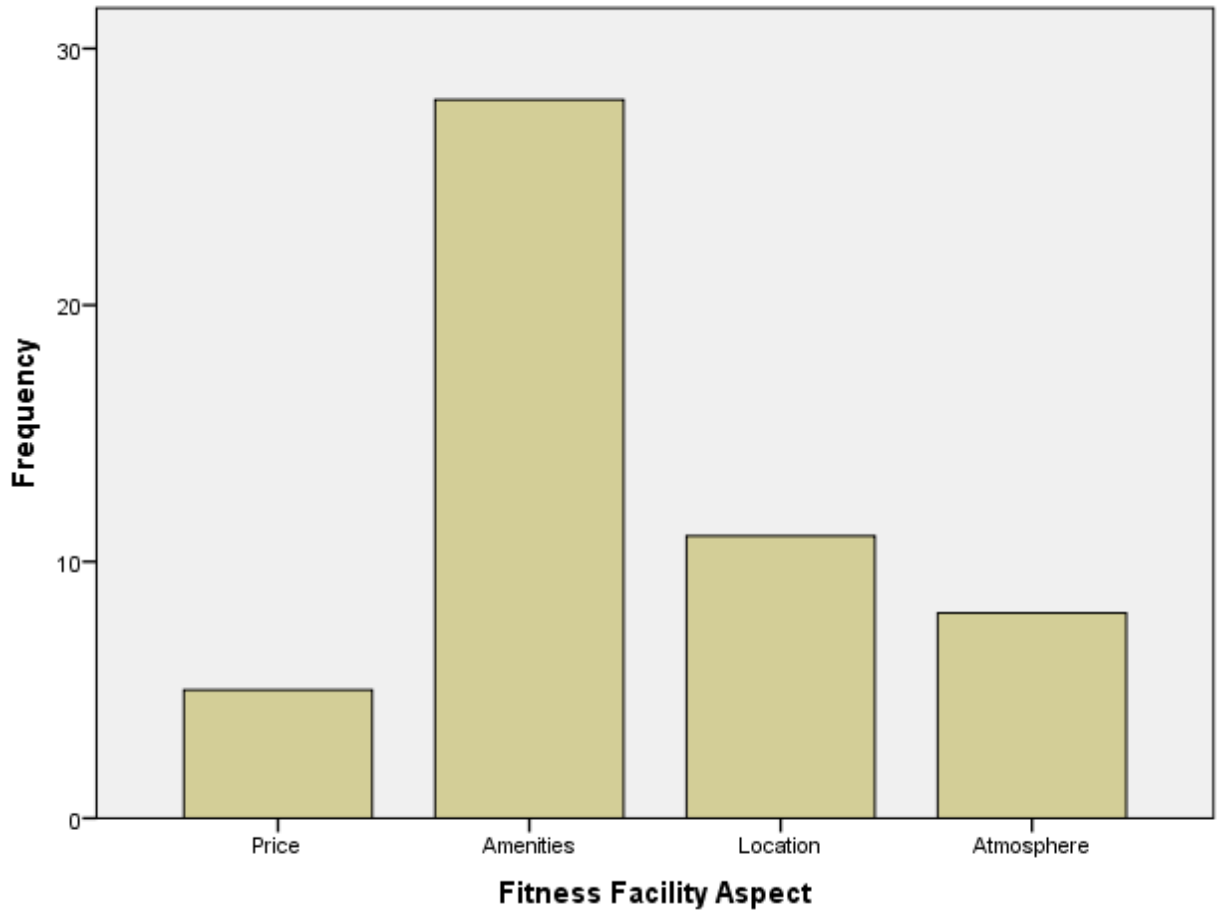


Figure 6. Frequency of each fitness facility aspect for Ranking 5.



## Gender Differences

The following is the fourth research question of the study: What are the differences of customer satisfaction level among males and females of the age of 60 and above, in a university based fitness center?

This research questions aimed to identify if there are significant differences between older adult males and females, in regards to satisfaction level of the James G. Mill Fitness Center. Gender differences are important to be recorded and understood in the health and fitness industry, so management teams can implement plans based on each genders preferences. First, descriptive statistics were run to see overall mean scores for males and females (see Table 12).

Table 12

*Means of Gender*

Gender	Mean	N	Std. Deviation
Male	6.4170	32	.49634
Female	6.3496	23	.40073
Total	6.3888	55	.45604

In terms of overall satisfaction, Males ( $M = 6.41$ ,  $SD = .49$ ) conveyed higher satisfaction scores than Females ( $M = 6.34$ ,  $SD = .40$ ). The difference between the two genders is minor, but males having a higher satisfaction score further supports the studies by (Ampofo-Boateng, 2009), and (Theodorakis et al., 2004), where males on average were more satisfied with the various services provided by the health and fitness clubs.

The primary investigator also analyzed if there were differences between males and females within each service element (Staff, Physical Facility, Workout Facility, Locker Rooms, Health-Fitness, and Social & Intellectual). A chi-square test of independence was run for the

participants overall means for each service element to test for the statistical significance of the relationship between the two nominal variables of male and female (See Tables 13-18).

Table 13

*Gender Chi-Square Test for Staff*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.379 <sup>a</sup>	11	.497
Likelihood Ratio	13.367	11	.270
Linear-by-Linear Association	.069	1	.793
N of Valid Cases	55		

Table 14

*Gender Chi-Square Test for Physical Facility*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.909 <sup>a</sup>	8	.350
Likelihood Ratio	10.755	8	.216
Linear-by-Linear Association	.002	1	.963
N of Valid Cases	55		

Table 15

*Gender Chi-Square Test for Workout Facility*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	21.204 <sup>a</sup>	13	.069
Likelihood Ratio	27.255	13	.011
Linear-by-Linear Association	1.321	1	.250
N of Valid Cases	54		

Table 16

*Gender Chi-Square Test for Locker Rooms*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.558 <sup>a</sup>	14	.483
Likelihood Ratio	16.677	14	.274
Linear-by-Linear Association	1.899	1	.168
N of Valid Cases	51		

Table 17

*Gender Chi-Square Test for Health-Fitness*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.735 <sup>a</sup>	8	.786
Likelihood Ratio	6.135	8	.632
Linear-by-Linear Association	.207	1	.649
N of Valid Cases	54		

Table 18

*Gender Chi-Square Tests for Social & Intellectual*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12.711 <sup>a</sup>	11	.313
Likelihood Ratio	16.144	11	.136
Linear-by-Linear Association	.379	1	.538
N of Valid Cases	55		

For the chi-square independent tests run in this study, significance between genders would be determined at the less than .05 significance level. The chi-square test of independence was calculated comparing males and females satisfaction within each service element. No significant relationship was found for the six service elements tested. The results showed 'Staff' ( $\chi^2(11) = 10.379, p > .05$ ), 'Physical Facility' ( $\chi^2(8) = 8.909, p > .05$ ), 'Workout Facility' ( $\chi^2(13) = 21.204, p > .05$ ), 'Locker Rooms' ( $\chi^2(14) = 13.558, p > .05$ ), 'Health-Fitness' ( $\chi^2(8) = 4.735, p > .05$ ), 'Social & Intellectual' ( $\chi^2(11) = 12.711, p > .05$ ). Males and females appear to

be independent in regards to satisfaction level of the ‘Staff’, ‘Physical Facility’, ‘Workout Facility’, ‘Locker Rooms’, ‘Health-Fitness’, and ‘Social & Intellectual’ elements. It should be made aware that the element of ‘Workout Facility’ ( $p = .069$ ) was the closest to reaching the significance level.

A chi-square of independence was run for each individual question, to try and find if there were any significant differences of gender in regards to satisfaction level. One question was found to be significant in the ‘Social & Intellectual’ element as shown in Table 19 and 20. The question stated ‘The participants in the program are friendly to me’.

Table 19

Crosstab Output for Social and Intellectual Question 4

		Social and Intellectual 4			
		4.00	6.00	7.00	Total
Gender	Male	0	11	20	31
	Female	4	1	18	23
Total		4	12	38	54

Table 20

Gender Chi-Square Test for Social & Intellectual Question 4

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.506 <sup>a</sup>	2	.003
Likelihood Ratio	14.212	2	.001
Linear-by-Linear Association	.830	1	.362
N of Valid Cases	54		

In the chi-square test of independence comparing satisfaction levels, ‘Social & Intellectual’ question 4 stating “The participants in the program are friendly to me” was found to have a significant interaction ( $\chi^2(2) = 11.506, p < .05$ ).

Based on insignificant results found between each service elements for gender, the primary investigator aimed to run another statistical method for further confirmation. An independent sample t-test was used to test for overall mean scores of each gender between each service element (See Table 21). Also, independent sample t-tests were used to test for differences of genders between each service element (See Table 22).

Table 21

*Gender Group Statistics of Each Service Element*

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Staff	Male	32	6.6161	.49279	.08711
	Female	23	6.5776	.60222	.12557
Physical Facility	Male	32	6.5729	.57258	.10122
	Female	23	6.5797	.47903	.09988
Workout Facility	Male	32	6.4464	.57573	.10178
	Female	22	6.2857	.37148	.07920
Locker Rooms	Male	31	5.9468	.93085	.16719
	Female	20	5.5500	1.08749	.24317
Health-Fitness	Male	32	6.5312	.70258	.12420
	Female	22	6.4394	.77927	.16614
Social & Intellectual	Male	32	6.3688	.66256	.11713
	Female	23	6.4870	.76474	.15946

Table 22

*Gender Independent Samples Test for Service Element Output*

		Levene's Test for Equality of Variances				t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Staff	Equal variances assumed	1.145	.289	.260	53	.796	.03843	.14786	-.25815	.33501
	Equal variances not assumed			.251	41.457	.803	.03843	.15283	-.27011	.34697
Physical Facility	Equal variances assumed	.919	.342	-.046	53	.963	-.00679	.14645	-.30054	.28695
	Equal variances not assumed			-.048	51.696	.962	-.00679	.14220	-.29219	.27860
Workout Facility	Equal variances assumed	3.228	.078	1.153	52	.254	.16071	.13940	-.11901	.44044
	Equal variances not assumed			1.246	51.847	.218	.16071	.12896	-.09808	.41951
Locker Rooms	Equal variances assumed	1.550	.219	1.391	49	.170	.39677	.28524	-.17643	.96998
	Equal variances not assumed			1.345	36.099	.187	.39677	.29510	-.20166	.99520
Health-Fitness	Equal variances assumed	.122	.728	.452	52	.653	.09186	.20343	-.31635	.50006
	Equal variances not assumed			.443	42.119	.660	.09186	.20743	-.32673	.51044
Social & Intellectual	Equal variances assumed	.084	.773	-.612	53	.543	-.11821	.19321	-.50573	.26932
	Equal variances not assumed			-.597	43.216	.553	-.11821	.19785	-.51716	.28074

The independent sample t-test comparing the mean scores of males and females found no significant differences in regards to each service element at  $p > .05$  significance level. The service elements were 'Staff' ( $t(53) = .260, p > .05$ ). The 'Staff' mean of males ( $M = 6.61, sd = .49$ ) was not significantly different for the mean of females ( $M = 6.57, sd = .60$ ). The 'Physical Facility' service element was ( $t(53) = -.046, p > .05$ ). The 'Physical Facility' mean of males ( $M = 6.57, sd = .57$ ) was not significantly different for the mean of females ( $M = 6.57, sd = .47$ ). For 'Workout Facility' service element ( $t(52) = 1.15, p > .05$ ). The 'Workout Facility' mean of males ( $M = 6.44, sd = .57$ ) was not significantly different for the mean of females ( $M = 6.28, sd = .37$ ). For 'Locker Rooms' service element ( $t(49) = 1.39, p > .05$ ). The 'Locker Rooms' mean of males ( $M = 5.94, sd = .93$ ) was not significantly different for the mean of females ( $M = 5.55, sd = 1.08$ ). For 'Health-Fitness' service element ( $t(5) = .653, p > .05$ ). The 'Health-Fitness' mean of males ( $M = 6.53, sd = .70$ ) was not significantly different for the mean of females ( $M = 6.43, sd = .77$ ). For the service element 'Social & Intellectual' ( $t(53) = .543, p > .05$ ). The 'Social & Intellectual' mean of males ( $M = 6.36, sd = .66$ ) was not significantly different for the mean of females ( $M = 6.48, sd = .76$ ). This further supported the results found by the chi-square test of independence.

### **Membership Type Differences**

The following is the fifth research question of the study: What are the differences of customer satisfaction level among general community members' compared to faculty/staff members, of the age of 60 and above, in a university based fitness center?

This research question aimed to identify if there are significant differences of satisfaction level between the two membership types of 'General Community' and 'Faculty/Staff', at the James G. Mill Fitness Center. University fitness centers typically have faculty or staff members,



as well as members from the surrounding community who are not employed by the university. First, descriptive statistics were run to identify the mean overall satisfaction scores for the two membership types (See Table 23).

Table 23

*Means of Membership Type*

Membership	Mean	N	Std. Deviation
General Community	6.3870	20	.45962
Faculty/Staff	6.3899	35	.46071
Total	6.3888	55	.45604

In terms of overall mean satisfaction, ‘General Community’ ( $M = 6.387, SD = .45$ ) is very similar to ‘Faculty/Staff’ ( $M = 6.389, SD = .46$ ). The membership type of ‘Faculty/Staff’ is found to be slightly just above the mean satisfaction score of the general community members. These results show there is no relative difference between membership type, and overall mean satisfaction score. The older adults of each membership type are generally satisfied with the services examined.

The primary investigator also analyzed if there were differences between ‘General Community’ and ‘Faculty/Staff’ members within each service dimension (Staff, Physical Facility, Workout Facility, Locker Rooms, Health-Fitness, and Social & Intellectual). A chi-square test of independence was run using the participants overall means for each service element to test for the statistical significance of the relationship between the two nominal variables of ‘General Community’ and ‘Faculty/Staff’ (See Tables 24-29).

Table 24

*Membership Chi-Square Test for Staff*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.574 <sup>a</sup>	11	.158
Likelihood Ratio	18.584	11	.069
Linear-by-Linear Association	1.255	1	.263
N of Valid Cases	55		

Table 25

*Membership Chi-Square Test for Physical Facility*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.545 <sup>a</sup>	8	.382
Likelihood Ratio	10.184	8	.252
Linear-by-Linear Association	.009	1	.924
N of Valid Cases	55		

Table 26

*Membership Chi-Square Tests for Workout Facility*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.491 <sup>a</sup>	13	.084
Likelihood Ratio	25.343	13	.021
Linear-by-Linear Association	.554	1	.457
N of Valid Cases	54		

Table 27

*Membership Chi-Square Test for Locker Rooms*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.225 <sup>a</sup>	14	.816
Likelihood Ratio	11.878	14	.616
Linear-by-Linear Association	.526	1	.468
N of Valid Cases	51		

Table 28

*Membership Chi-Square Test for Health-Fitness*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.430 <sup>a</sup>	8	.599
Likelihood Ratio	8.225	8	.412
Linear-by-Linear Association	1.330	1	.249
N of Valid Cases	54		

Table 29

*Membership Chi-Square Tests for Social & Intellectual*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.231 <sup>a</sup>	11	.220
Likelihood Ratio	17.327	11	.099
Linear-by-Linear Association	.426	1	.514
N of Valid Cases	55		

For the chi-square independent tests run in this study, significance between membership types would be determined at the less than .05 significance level. The chi-square test of independence was calculated comparing ‘General Community’ and ‘Faculty/Staff satisfaction within each service element. No significant relationship was found for the six service elements tested. The results showed ‘Staff’ ( $\chi^2 (11) = 15.574, p > .05$ ), ‘Physical Facility’ ( $\chi^2 (8) = 8.545, p > .05$ ), ‘Workout Facility’ ( $\chi^2 (13) = 20.491, p > .05$ ), ‘Locker Rooms’ ( $\chi^2 (14) = 9.225, p > .05$ ), ‘Health-Fitness’ ( $\chi^2 (8) = 6.430, p > .05$ ), ‘Social & Intellectual’ ( $\chi^2 (11) = 14.231, p > .05$ ). General Community and Faculty/Staff membership type appear to be independent in regards to satisfaction level of the ‘Staff’, ‘Physical Facility’, ‘Workout Facility’, ‘Locker Rooms’, ‘Health-Fitness’, and ‘Social & Intellectual’ elements. The service element of ‘Workout Facility’ ( $p = .084$ ) was found to be the most significant of the six service elements.

A chi-square of independence was run for each individual question, to try and examine if there were any significant differences between membership types in regards to satisfaction level. One question was found to be significant in the ‘Workout Facility’ element as shown in Table 30 and 31. The question asked to give satisfaction level on ‘Overall Maintenance’.

Table 30

*Crosstab Output for Workout Facility Question 6*

		Workout Facility 6				
		4.00	5.00	6.00	7.00	Total
Membership	General	2	5	7	6	20
	Community					
	Faculty/Staff	0	2	16	16	34
Total		2	7	23	22	54

Table 31

*Membership Chi-Square Test for Workout Facility  
Question 6*

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.280 <sup>a</sup>	3	.041
Likelihood Ratio	8.764	3	.033
Linear-by-Linear Association	6.059	1	.014
N of Valid Cases	54		

In the chi-square test of independence comparing satisfaction levels, ‘Workout Facility’ question 6 stating satisfaction level on ‘Overall Maintenance’ was found to have a significant interaction ( $\chi^2(3) = 8.280, p < .05$ ).

To further test for significance between genders, an independent sample t-test was used. First, means scores between genders were found for each service element (See Table 32). Next, independent sample t-tests were used to test for differences in mean score between each service element (See Table 33).

Table 32

*Membership Type Group Statistics of Each Service Element*

	Membership	N	Mean	Std. Deviation	Std. Error Mean
Staff	General	20	6.4929	.60516	.13532
	Community				
	Faculty/Staff	35	6.6612	.49132	.08305
Physical Facility	General	20	6.5667	.57583	.12876
	Community				
	Faculty/Staff	35	6.5810	.51190	.08653
Workout Facility	General	20	6.3143	.50048	.11191
	Community				
	Faculty/Staff	34	6.4202	.51079	.08760
Locker Rooms	General	17	5.6471	1.09208	.26487
	Community				
	Faculty/Staff	34	5.8632	.96557	.16559
Health-Fitness	General	19	6.6491	.54968	.12610
	Community				
	Faculty/Staff	35	6.4095	.80475	.13603
Social & Intellectual	General	20	6.5000	.66332	.14832
	Community				
	Faculty/Staff	35	6.3714	.72945	.12330

Table 33

*Membership Type Independent Samples Test for Service Element Output*

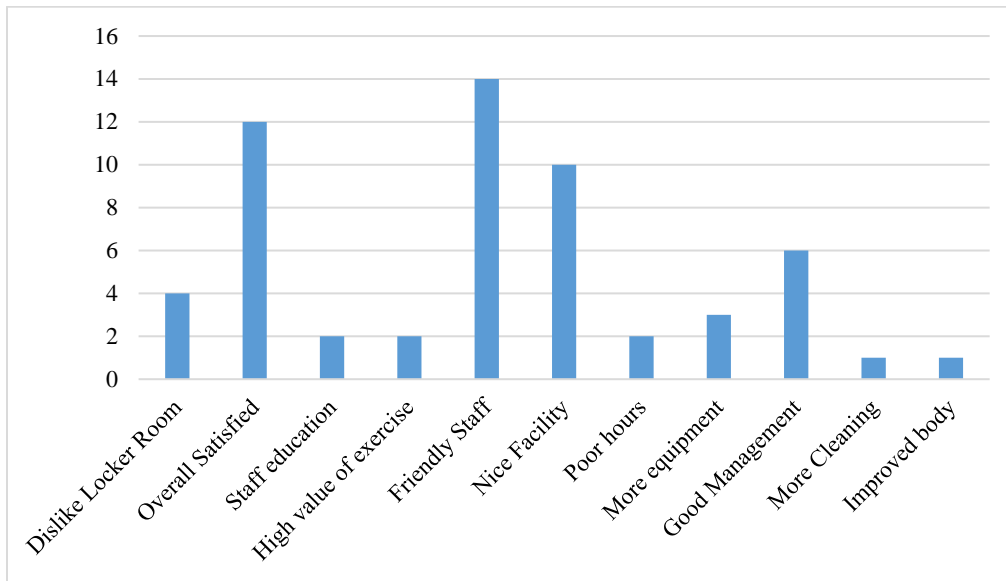
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Staff	Equal variances assumed	1.585	.214	-1.123	53	.267	-.16837	.14994	-.46911	.13238
	Equal variances not assumed			-1.060	33.364	.297	-.16837	.15877	-.49125	.15452
Physical Facility	Equal variances assumed	.278	.600	-.095	53	.925	-.01429	.15016	-.31547	.28690
	Equal variances not assumed			-.092	35.940	.927	-.01429	.15513	-.32893	.30035
Workout Facility	Equal variances assumed	.022	.883	-.741	52	.462	-.10588	.14289	-.39260	.18084
	Equal variances not assumed			-.745	40.633	.461	-.10588	.14212	-.39298	.18121
Locker Rooms	Equal variances assumed	.665	.419	-.722	49	.474	-.21618	.29961	-.81826	.38590
	Equal variances not assumed			-.692	28.817	.494	-.21618	.31237	-.85523	.42287
Health-Fitness	Equal variances assumed	4.307	.043	1.157	52	.253	.23960	.20707	-.17592	.65511
	Equal variances not assumed			1.292	49.080	.203	.23960	.18549	-.13314	.61234
Social & Intellectual	Equal variances assumed	.226	.637	.649	53	.519	.12857	.19802	-.26862	.52576
	Equal variances not assumed			.667	42.888	.509	.12857	.19288	-.26044	.51758

The independent sample t-test comparing the mean scores of membership type found no significant differences in regards to each service element at  $p > .05$  significance level. This further supported the results found by the chi-square test of independence. The first service element was 'Staff' ( $t(53) = -1.1, p > .05$ ). The 'Staff' mean of general community ( $M = 6.49, sd = .60$ ) was not significantly different for the 'Staff' mean of faculty/staff ( $M = 6.6, sd = .49$ ). The second service element was 'Physical Facility' ( $t(53) = -.095, p > .05$ ). The 'Physical Facility' mean of general community ( $M = 6.56, sd = .57$ ) was not significantly different for the 'Physical Facility' mean of faculty/staff ( $M = 6.58, sd = .51$ ). The third service element was 'Workout Facility' ( $t(52) = -.741, p > .05$ ). The 'Workout Facility' mean of general community ( $M = 6.31, sd = .50$ ) was not significantly different for the 'Workout Facility' mean of faculty/staff ( $M = 6.42, sd = .51$ ). The fourth service element was 'Locker Rooms' ( $t(49) = -.722, p > .05$ ). The 'Locker Rooms' mean of general community ( $M = 5.64, sd = 1.09$ ) was not significantly different for the 'Locker Rooms' mean of faculty/staff ( $M = 5.86, sd = .96$ ). The fifth service element was 'Health-Fitness' ( $t(5) = 1.15, p > .05$ ). The 'Health-Fitness' mean of general community ( $M = 6.64, sd = .54$ ) was not significantly different for the 'Health-Fitness' mean of faculty/staff ( $M = 6.40, sd = .80$ ). The sixth service element was 'Social & Intellectual' ( $t(53) = .649, p > .05$ ). The 'Social & Intellectual' mean of general community ( $M = 6.50, sd = .66$ ) was not significantly different for 'Social & Intellectual' the mean of faculty/staff ( $M = 6.37, sd = .72$ ). These results further supported the results found by the chi-square test of independence.



## Additional Findings

Section four of the survey asked to provide any open-ended comments that the participant had in regards to their satisfaction in the James G. Mill Fitness Center. Various thoughts were provided, key points were analyzed and displayed in Figure 7.



*Figure 7.* This figure illustrates the frequency of the open-ended comments provided.

The survey open-ended portion was examined, and 11 factors were found to be provided most frequent. The factors included Dislike Locker Room ( $n = 4$ ), Overall Satisfied ( $n = 12$ ), Staff Education ( $n = 2$ ), High Value of Exercise ( $n = 2$ ), Friendly Staff ( $n = 14$ ), Nice Facility ( $n = 10$ ), Poor Hours ( $n = 2$ ), More Equipment ( $n = 3$ ), Good Management ( $n = 6$ ), More Cleaning ( $n = 1$ ), Improved Fitness ( $n = 1$ ).

## CHAPTER V

### DISCUSSION

#### **Summary of the Study**

The health and fitness club industry is continuing to grow worldwide, and meeting the demands of customer satisfaction is essential for all facility managers (Theodorakis et al., 2004). This is why member retention is such an important factor for health and fitness clubs to be successful in the competitive industry. Therefore, in order to retain members, they need to be satisfied with the services provided. In order to evaluate satisfaction scores, customer satisfaction surveys need to be administered and analyzed. Gerson (1999) found that customer satisfaction surveys help manager close gaps between members' and service providers' perceptions. By being able to measure customer satisfaction level, managers are able to identify how the members actually feel about the services, rather than what the managers think or assume the satisfaction level is.

In the context of the current study, older adults were analyzed in a university fitness center setting. Older adults are part of the membership base for many health and fitness clubs across the world. Vogel (2007) stated that the gym setting is expected to change as there is an increase of members aged 60 and over expressing their preferences. Therefore, better quality services need to be provided to people ages 60 and over because there's more participation in sport, recreation, and leisure activities (Elling, Knoppers, & De Knop, 2001; Vonck et al., 2010). Hyun Soon et al., (2014) referenced that few researches have focused on the program service quality of people aged 60 years and over. More specifically for the current study, very little research has ever been conducted on members of the age of 60 and over in a university based fitness center.

The primary aim of this research was to identify various satisfaction levels of older adult members, of the James G. Mill Fitness Center, at the Indiana University of Pennsylvania. There has been extensive research on measuring satisfaction levels from many health and fitness clubs across the world. However, as stated previously, very little research has been conducted on people of the age of 60 and over, in a university based fitness facility. This study will provide concrete information about satisfaction levels of older adults, in the James G. Mill Fitness Center, at the Indiana University of Pennsylvania.

### **Summary of Results with Regard to Hypothesis**

Prior to conducting the current study, the primary investigator suggested five hypotheses. The following is the five hypotheses:

1. It was hypothesized that the members will be ‘moderately satisfied’ with the university fitness center.
2. It was hypothesized that the ‘Staff’ element will receive the highest satisfaction score, when compared to physical facility, workout facility, locker rooms, and social and intellectual elements.
3. It was hypothesized that ‘Price’ will be the highest ranked aspect related to client satisfaction.
4. It was hypothesized that males will tend to be more satisfied when compared to females.
5. It was hypothesized that general community members will tend to be more dissatisfied when compared to faculty/staff.

The results of the data analysis suggested that hypothesis number 1 and 2 were supported, and hypothesis 3, 4, and 5 were not supported. In regards to hypothesis number 1, the older adult

members were found to have a mean overall satisfaction score ( $M = 6.38$ ) that fell into the 'Moderately Satisfied' category. Therefore, hypothesis number 1 was found to be supported. These findings are similar to the research conducted by (Da Silva Salin et. al., 2014), where the majority of older adults were satisfied with their health and fitness club. These findings are significant for the present and future managers of the James G. Mill Fitness Center, because they show how satisfied the older adult members are and improvements that may need to be made. From the results showing the older adult members are 'Moderately Satisfied', this is a good indication for the managers of the facility because it shows these members are generally satisfied with the overall facility. The managers can use this as a resource to continue to implement similar practices in place, but also be conscious that there is room for improvement and use these results to continue to raise the satisfaction level of the older adult members.

Hypothesis number 2 was found to be supported through descriptive statistics. The service element of 'Staff' ( $M = 6.6$ ) was found to have the highest mean overall satisfaction score, when compared to all of the service elements tested. Therefore, hypothesis number 2 was found to be supported. These results reveal relatively high scores for all of the service elements tested in the current study. This suggests that the James G. Mill Fitness Center and the services that are provided generally satisfy the older adult members' needs. The results found further supported the study proposed by Theodorakis et al. (2004), where the Staff element had the highest overall satisfaction score. This can be explained because the staff at the James G. Mill Fitness Center are very pleasant, professional, and social people who always engage with the members. The older adult members feel pleased with the current staff employees, resulting in the high satisfaction scores. Justification for the locker rooms receiving the lowest overall satisfaction score is the locker room facility measured in the current study is older and is in need

of renovation. Also, some participants did not use the locker room available, and therefore scored each response as (4=Neutral). This could have also explained why the locker room element received the lowest satisfaction score of the six elements. Thus, the locker room element received the 'Moderately Satisfied' category, therefore the older adult members overall are satisfied with the provided locker room area. These findings are significant for management of the James G. Mill Fitness Center, as well as university fitness centers nationwide with an older adult member population in terms of fitness and health club service elements.

Hypothesis number 3 was found to not be supported. This research question aimed to examine of the fitness facility aspects of price, equipment, amenities, location, and atmosphere, what was more important to older adult members in a university based fitness center. Descriptive statistics were used to find what aspect of a fitness facility was most important to that participant. It was found that the aspect of 'Equipment' 32.7% ( $n = 18$ ) was chosen most frequently to be the most important fitness facility aspect. The fitness facility aspect of 'Price' 25.5% ( $n = 14$ ) was chosen to be of second most importance to the older adult members. Therefore, hypothesis number 3 was not supported. Equipment and price were selected to be of the highest importance to the participants, with equipment ranking the higher of the two facility aspects. The aspect of location would be ranked next, followed by location with amenities being of least important to the older adult members. The primary investigators justification for these findings are that older adult members of health and fitness clubs value up-to-date, functional, equipment. They would rather not have to be in a fitness facility that has older equipment, and that requires routine maintenance. In specific to the current study of the James G. Mill Fitness Center, the equipment is relatively new and modern, which may have been a major reason on why the older adults chose to become a member. The aspect of price was also found to be of high importance falling

most frequent in the top two rankings. This can be further explained because older adults may have limited disposable income, but want to stay fit to increase their life span. This may be a reason on why they value the aspect of price. In specific to the James G. Mill Fitness Center, the prices are very competitive for the surrounding area. This can explain why the older adult participants chose this fitness facility, based upon price being important to them. The fitness facility aspect of location was found to be the most frequent for Ranking 3. This can be further explained because older adults may not prefer to travel very far for their fitness facility. They may rather prefer to have a facility that is closer to their home or work. Other various reasons such as transportation, driving incapability, time, tax on body, numerous health concerns need to be taken into account for the further distance traveled. For the James G. Mill Fitness Center in the current study, most of the older adult members live in Indiana or close surrounding areas, so they're not too far from the facility. The most frequent for Ranking 4 was 'Atmosphere'. The researcher feels this was ranked of lower importance because older adults don't pay as much attention to things such as music, television, or what's going on in the surroundings. Also, some members may find 'Atmosphere' important, but when chose to rank between the other four fitness facilities aspects it, and didn't seem as important. Coming in least important at Ranking 5 was 'Amenities'. Judging from these results the primary investigator can conclude that older adults find amenities of a fitness facility to be of least importance when compared to the other four facility aspects. Amenities in a fitness facility can be explained as things such as free towels, televisions, lockers, etc. Justification from the primary investigator are that older adults are more concerned with their workout and how to become more healthy, than what the facility is offering in terms of amenity services. These findings are significant for any health and fitness club management team that has older adult members. The results can show that older adults value

equipment the most. Fitness facilities should focus more on updating and maintaining their equipment to attract and retain older adults. Health and fitness facilities should also focus on having competitive prices, which was shown to rank of high importance. Strategies such as having a discount for older members could be very effective based off of these results. Most often location can't be changed, unless the building of a new facility. Atmosphere and Amenities were found to rank the lowest in terms of importance, but that doesn't mean health and fitness clubs should not focus on these aspects. Having a good atmosphere is always a good element to have, as well as having amenities that set you apart from the competition will get members in the door. In summary, these five fitness facility aspects may be of importance to all older adult members, but some are found to be more important than others. Management teams should focus on all of these facility aspects, but if striving to increase older adult memberships, equipment and price are essential to focus on based on these findings.

Hypothesis number 4 was found to not be supported. The results of the independent chi-square test and independent t-tests showed that between the six service elements tested, there were no significant customer satisfaction level differences in regards to the gender of males and females. Males and females were found to be independent of each other. There are various reasons the researcher believes that there was no significance found between genders for the service elements tested. One reason for justification is that survey is based on self-reporting which can be a limitation. Also, there is a discrepancy between the number of males ( $n = 32$ ) and females ( $n = 23$ ) in the study, which could contribute to the non-significance. Many of the older adults are married and attend the fitness center with one another, which could result in similar results because they have related feelings as a couple on the service elements. The older adult male and females may have filled out the survey together, and discussed their satisfaction level

with one another, resulting in similar results between the two genders. Also, the older adult male and females are very social with one another, and feel almost like a family. Thus, resulting in higher satisfaction scores for each gender with no comparable differences. Males and Females of the age of 60 and over are independent of each other in the James G. Mill Fitness Center at IUP.

Hypothesis number 5 was found to not be supported through results of the chi-square of independence test and independent t-tests. It was found that in regards to satisfaction score and membership type ('General Community', 'Faculty/Staff') there were no significant differences between the two membership types. General community and faculty/staff members were found to be independent of each other. Based upon these findings, the researcher believes that these findings can be further explained by various factors. Reasons explaining no significance of membership type between the service elements are the discrepancy of 'General Community' ( $n = 20$ ), and 'Faculty/Staff' ( $n = 35$ ). This difference in the membership types would allow for the data to be less significant, because of the less amount of 'General Community' members. As stated previously, the survey is on a self-reporting base, which can result in inaccuracies between the two membership types. Most of the older adults, regardless of membership type, are satisfied with each dimension. Thus, resulting in no significant differences found. General community members and faculty/staff members of the age of 60 and over, are independent of each other in the James G. Mill Fitness Center at IUP.

The additional findings of the open-ended portion of the study revealed beneficial results. These results are important to the current management team of the James G. Mill Fitness Center, to be able to see the older adult members' opinions on the current facility. By looking at these results, the management team can see that Friendly Staff ( $n = 18$ ), Overall Satisfied ( $n = 12$ ), and Nice Facility ( $n = 10$ ) were the comments provided the most between all participants included in



the study. These results are favorable to the current management team showing the positive opinions most frequently. However, it's important to make sure each individual member is satisfied with all services. Comments were made in regards to Dislike Locker Rooms ( $n = 4$ ), Poor Hours ( $n = 2$ ), and Need More Equipment ( $n = 2$ ). These issues should be addressed by the current management team, to see if any possible solutions can be made to resolve these issues, thus resulting in higher satisfaction. These results can also be helpful to many other fitness centers who have an older adult membership base. They show how the older adult members feel when asked to write their own opinion about a fitness facility. Results will be different with each respective health and fitness club, but it's important to see what positive/negative comments are mentioned most frequently, to implement plans based on each comment.

### **Conclusions**

Overall, the results of this research study provide beneficial results for the current manager and future managers of the James G. Mill Fitness Center, as well as other university based fitness centers that are alike in nature. By being able to measure the satisfaction level of the older adult members, the management team of the James G. Mill Fitness Center will be able to better implement plans and strategies to satisfy this particular age group.

Based upon the findings in the current study, it can be explained that the older adult members of the James G. Mill Fitness Center are satisfied with the services provided. The management team can build upon this satisfaction level, to further increase the satisfaction of each specific older adult. In regards to the service elements, the overall satisfaction means for each service element were found to fall in the categories of 'Moderately Satisfied' or 'Very Satisfied'. While the members felt satisfied with the services tested, there is still room for improvement that can be recognized. Judging from these results, more emphasis should be put on

improving the locker rooms, which receive the lowest overall mean score from the older adult members.

The ranking portion of the study is beneficial for any health and fitness club that has an older adult population. Based on the results found, equipment and price should be of the highest priority of management teams when trying to recruit and maintain older adult members. It's important for these facilities to purchase and maintain up-to-date equipment. Also, fitness clubs should have competitive prices that are fair, or offer discounts or promotions for older adults. These strategies would be advantageous of any health and fitness club trying to target this specific demographic.

It's noteworthy that no significant differences in satisfaction levels were found between gender, and membership type. These results show that satisfaction levels were consistently high, regardless of gender or membership type. Each demographic analyzed was found to be 'Moderately Satisfied', thus resulting in no significant differences. This validates that the management team of the James G. Mill Fitness Center should focus more on raising satisfaction levels as a whole, rather than focusing on differences in gender or membership type.

For the open-ended portion, there were many positive comments given, but also negative comments were provided. It's important for the management team to recognize the older adults' opinions, and focus on what comments are stated most frequently. Open-ended portions of customer satisfaction surveys are very important because they allow the participant to express their feelings in writing, anonymously. This allows the management teams to be fully aware of the opinions of their members, and implement strategies based off those comments.

Being able to test, analyze, and implement strategies based off of satisfaction results are beneficial for any service industry business. It's especially important for health and fitness clubs

because of the growing competition, to attract and maintain customers for the better success of the business. Health and fitness clubs are built to increase the quality of life of every member, but also to be profitable and successful. Measuring satisfaction level is the first step in being able to better satisfy the clients, resulting in member retention, repeat purchases, and generating more revenue.

### **Directions for Future Research**

The current study was restricted because it only examined one university based fitness center, located in Indiana, Pennsylvania. Therefore, the study consisted of a small sample size. Because of the small sample size, results may have been less reliable compared to if there were a larger sample of older adults studied. In the circumstance of future research, and given more time, the researcher would have examined multiple university fitness centers, similar in nature to the James G. Mill Fitness Center at IUP. This would have resulted in the researcher having a much larger sample size, and more reliable results to conclude from. Having a larger sample size could have also given a better chance for significant results in comparing gender and membership type. Also, the researcher could compare similarities and differences in satisfaction level of older adults between the various university fitness centers studied.

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Appendix A  
Cover Letter

Dear Member;

You are invited to participate in this research study because you are a current member of the James G. Mill Fitness Center at Indiana University of Pennsylvania. The following information is provided in order to help you to make an informed decision whether or not to participate. If you have any questions please do not hesitate to ask.

The purpose of this study is to investigate the satisfaction level of members of the James G. Mill Fitness Center. The survey will require approximately 10 minutes of your time to answer the survey questions. The survey includes both multiple choice and fill-in-the-blank questions. You will not provide your name on the survey. The information obtained in this study will be strictly anonymous. All of the data will be stored securely and only the principle investigator and co-investigator will be able to review it.

Your participation in this study is completely **VOLUNTARY**. You may choose not to participate in this study or you may withdraw at any time while taking the survey. If you choose to participate, you may withdraw by not completing the survey and/or not returning the survey. If you choose to participate, all information will be held in strict confidence and will have no bearing on your academic standing or services you receive from the University. Also, there is no known risk for participating in this study. The information obtained in the study may be used for a Master's thesis, but your name and any personally identifiable information will not be used.

If you have any questions at any time (before, during, or after the survey), feel free to contact the principal investigator or co-investigator.

Principal Investigator:

Co-Investigator:

Mr. Darin Rauso Graduate Student in Sports Management Department of Kinesiology, Health, and Sport Science Indiana University of Pennsylvania Tel: 724-422-3693 E-mail: HBGS@iup.edu	Dr. Richard Hsiao Professor Department of Kinesiology, Health, and Sport Science Indiana University of Pennsylvania Tel: 724-357-0123 E-mail: hsiao@iup.edu
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This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the protection of Human Subjects.



Appendix B  
Survey Instrument

*Section 1: Demographics*

(1) Gender:  Male  Female

(2) Age: \_\_\_\_\_

(3) Time of Day:  5:30 a.m. - 8 a.m.  11 a.m. - 1 p.m.  4 - 9 p.m.

(4) Type of Membership:  General Community  Faculty/Staff

*Section 2: Satisfaction Level*

Please answer the following questions by selecting a **ONE** category that best describes your answer.

1. Very Dissatisfied 2. Moderately Dissatisfied 3. Slightly Dissatisfied 4. Neutral  
5. Slightly Satisfied 6. Moderately Satisfied 7. Very Satisfied

**Staff:**

(1). Staff possession of required skills/ knowledge

1      2      3      4      5      6      7

(2). Neatness and dress

1      2      3      4      5      6      7

(3). Willingness to help

1      2      3      4      5      6      7

(4). Patience

1      2      3      4      5      6      7

(5). Staff communication with members

1      2      3      4      5      6      7

(6). Responsiveness to complaints

1      2      3      4      5      6      7

(7). Consistency of service

1      2      3      4      5      6      7

**Physical Facility:**

(1). Convenience of location

1      2      3      4      5      6      7

(2). Hours of operation

1      2      3      4      5      6      7

(3). Availability of parking

1      2      3      4      5      6      7

(4). Accessibility to the building

1      2      3      4      5      6      7

(5). Parking lot safety

1      2      3      4      5      6      7

(6). Lighting control

1      2      3      4      5      6      7

**Workout Facility:**

(1). Pleasantness of environment

1      2      3      4      5      6      7

(2). Modern-looking equipment

1      2      3      4      5      6      7

(3). Adequacy of space

1      2      3      4      5      6      7

(4). Variety of equipment

1      2      3      4      5      6      7

(5). Availability of workout facility/equipment

1      2      3      4      5      6      7

(6). Overall maintenance

1 2 3 4 5 6 7

(7). Background music/television

1 2 3 4 5 6 7

**Locker Rooms:**

(1). Availability of lockers

1 2 3 4 5 6 7

(2). Overall maintenance

1 2 3 4 5 6 7

(3). Shower cleanliness

1 2 3 4 5 6 7

(4). Accessibility

1 2 3 4 5 6 7

(5). Safety

1 2 3 4 5 6 7

Please answer the following questions by selecting a **ONE** category that best describes your answer.

1. Strongly Disagree 2. Disagree 3. Somewhat Disagree 4. Neither Agree or Disagree  
5. Somewhat Agree 6. Agree 7. Strongly Agree

**Health-Fitness:**

(1). The programs help me keep healthy

1 2 3 4 5 6 7

(2). The programs help me keep fit

1 2 3 4 5 6 7

(3). The programs help my physical restoration

1 2 3 4 5 6 7

**Social & Intellectual**

(1). Exercising in the center gives me the chance to socialize

1      2      3      4      5      6      7

(2). Exercising in the center gives me the chance to learn new things

1      2      3      4      5      6      7

(3). Exercising in the center gives me the chance to increase my knowledge

1      2      3      4      5      6      7

(4). The participants in the program are friendly to me

1      2      3      4      5      6      7

(5). Exercising in the center gives me a sense of accomplishment

1      2      3      4      5      6      7

*Section 3: Ranking*

Rank the following fitness facility aspects in order of importance to you

(1: Most Important, 5: Least Important)

Price      Equipment      Amenities      Location      Atmosphere

- 1.
- 2.
- 3.
- 4.
- 5.

*Section 4: Open-ended*

Please provide any comments you may have in regards to your satisfaction in the fitness facility

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