Assessing the relative importance of service quality and constraints in predicting loyalty within private health and fitness centres

James Smith (PhD Scholar, MSc, BSc).

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Supervised by Dr. Duncan W. Murray and Associate Professor Gary Howat

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Declaration

I declare that this thesis does not incorporate without acknowledging any material previously submitted for a degree or diploma in any University; and to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in text.

James Smith

Date

Glossary

attraction	McIntyre and Pigram (1992) propose attraction is conceptualised as recreationists' perceptions of activity importance and pleasure gained through participation in the activity.
centrality	Centrality of the activity within the context of recreationists' overall life (Watkins, 1987). An activity is central when other aspects of life are organised around the activity.
commitment	The binding of an individual to behavioural acts resulting in affective attachment to behaviour (Buchanan, 1985).
constraints	Factors perceived or experienced by an individual that limit the formation of leisure preferences or inhibit participation and enjoyment (Jackson, 1997).
consumer involvement profile	A multi-dimensional measure developed by Laurent and Kapferer (1985) to assess involvement.
Cronbach's alpha	A reliability test for internal consistency of a research instrument. A test of reliability is generally administered as it relates to the consistency of the measure (Tabachnick & Fidell, 2001).
customer satisfaction	A dual cognitive and emotive response to specific service interactions, Oliver (1999) refers to this as the cognitive–affective approach.
dependent variable	The observed or presumed effect of the Independent Variable being manipulated (Hair, Anderson, Tatham & Black, 1995).
dialectic	For the purpose of the current thesis, the word dialectic was employed to explain two factors of Social Physique Anxiety. Plato's (1969) interpretation of Socrates's dialogues utilising the word dialectic made this word famous, and is best described as two contrasting views that are presented to persuade the other. In terms of Social Physique Anxiety the word dialectic is used in the current thesis to describe the idea of the private self which epitomizes the conflict between negative thoughts of having ones' physique evaluated negatively in a social setting versus the alternative thoughts and need to express and validate ones physique in front of a social audience.

disconfirmation	The difference between a customer's expectations and their perception of the performance of the service provider. Positive disconfirmation is when the customer receives a service that is more superior than had been previously expected. On the other hand, negative disconfirmation is caused by the performance of the service being less adequate than how the customer expected the product or service to perform. Therefore, satisfaction based upon the disconfirmation perspective is the result of positive disconfirmation and dissatisfaction is the result of negative disconfirmation (Oliver 1997).
experiential consumption	The view of consumption as a subjective state of consciousness with a variety of symbolic meanings, hedonic responses and aesthetic criteria (Holbrook & Hirshman, 1982).
exploratory factor analysis	Highlights the underlying structure of a scale which can be tested through factor analysis. It reduces data to a set of summary variables or factors (Hair et al., 1995).
hierarchical regression	This type of regression allows the researcher to decide based upon theoretical soundness the entry of variables into the regression equation (Tabachnick & Fidell, 2000).
hyper-fit physique	This ideal is a popular image promoted mostly in health contexts ranging from health and fitness centres, diet centres, and health magazines directed at both men and women. The hyper fit physique is defined as an extremely low body fat percentage with high muscle definition specifically in the upper body, abdominals, and quadriceps (Garvin & Damson, 2008)
independent variable	The variable that is manipulated or changed in order to determine its effect upon the dependent variable (Hair et al., 1995).
interpersonal constraint	Interpersonal constraints relate to social isolation such as finding partners to engage in an activity or lack of interest in the activity among peer group members (Alexandris & Stodolska, 2004).
intrapersonal constraint	These types of constraint are internal and involve individual/psychological states and attributes such as anxiety, stress and competence (Alexandris, Barkoukis, Tsormpatzoudis, & Grouios, 2003).
involvement	Involvement is defined as an unobservable state of motivation, or interest toward an activity or associated product. It is evoked by a particular stimulus and has drive properties (Rothschild, 1984).

lack of alternative options	This was a structural constraints factor labelled for the purpose of the current thesis. Participants in the current sample were governed by cost and lack of opportunity (taking control away from a person) shaping interest. Therefore, interest in this instance was considered as being experienced structurally.
lack of partner	Include difficulties with finding partners to engage in an activity (Alexandris & Carroll, 1997a).
leisure	Leisure is defined as any given behaviour that is enjoyable, freely chosen and intrinsically motivating in anticipation, participation and recollection of the event, and is defined by the individual as leisure (Kaplan, 1975).
loyalty	Customer loyalty is a deeply held commitment to repatronise a product or service consistently in the future, regardless of situational influences and marketing efforts having potential to cause switching behaviour (Oliver, 1997). However, loyalty was viewed as a series of stages by Lee et al. (2007) from attitudinal loyalty leading to conative loyalty leading to behavioural loyalty. Although in the current thesis the term stages was referred to, stages of loyalty in this instance was viewed to exist simultaneously, suggesting customers can be loyal in different ways.
multivariate outliers	Can occur when several different populations are mixed in the same sample or when some important variables are omitted that, if included, would attach the outlier to the rest of the cases (Tabachnick & Fidell, 2000).
negative physique internalisation (NPI)	This is one of two factors unique to the current thesis representing Social Physique Anxiety. The factor is named negative physique internalisation as it reflects one's private identity in a group fitness setting relating to fear of potential negative evaluation which is rarely disclosed or made public to others, but yet is likely to occur within the presence of a social audience.
outcome quality	Outcome quality the fulfilment of customers' expectations of the benefits people expect to attain (Alexandris, Zahariadis, Tsorbatzoudis, & Grouios, 2004b; Alexandris, Kouthouris, & Meligdis, 2006).
physical environment quality	Refers to the tangible element of the service, facilities, equipment and atmosphere (Alexandris et al., 2004b).
physique affirmation (PA)	This was a factor derived from Social Physique Anxiety in the current thesis. In this thesis this factor relates to one's social identity with one's physique being affirmed and/or expressed through social interaction (i.e. the group fitness class setting).

power	Probability of correctly rejecting the null hypothesis when it's false, that is, correctly finding a hypothesized relationship when it exists. Determined as a function of (1) the statistical significance level (α) set by the researcher for a Type 1 error, (2) the sample size used in the analysis, and (3) the effect of being examined (Hair et al., 1995).
process quality	Process quality is a customer's qualitative evaluation of his/her participation in the service production process. Process quality is the customer's personal and subjective judgement based on customer position in the production process and how well he/she sees him/her self fitting into the process (Lehtinen & Lehtinen, 1991).
self-presentation	Also called impression management which refers to processes people use to monitor and control how they are perceived by others (Leary, Tchividjian, & Kraxberger, 1994).
service quality	Perceived quality is the consumer's judgement about an entity's overall excellence or superiority (Zeithaml, 1987).
sign value	Refers to the unspoken statements that purchase or participation conveys about a person (Kyle & Chick, 2004).
social physique anxiety (SPA)	Anxiety experienced as a result of others evaluations or their physique (Hart, Leary, & Rejeski, (1989).
staff interaction quality	In this thesis it relates to a customer's experience as a result of the human element of the service (Alexandris et al., 2006). For example, this may include interaction with instructors and front line.
structural constraint	These constraints typically involve problems related to resources availability, and involve unavailability of opportunities, financial resources etc. (Alexandris et al., 2003).
total quality management	Total Quality Management is noted to be focused upon meeting a high standard of quality (Mele, 2007),
type 1 error rates	Probability of incorrectly rejecting the null hypothesis – in most cases, this means saying a difference or correlation exists when actually it does not. Also termed Alpha (α). Typical levels are 5 or 1 percent, termed the 0.5 or 0.1 level, respectively (Hair et al., 1995).
type 2 error rates	Probability of incorrectly failing to reject the null hypothesis-in simple terms, the chance of not finding a correlation or mean difference when it does exist. Also termed beta (β), it is inversely related to Type 1 error. The value 1 minus the Type 2 error is defined as power (Hair et al., 1995).
validity	Hair et al., (1995) argue validity is the extent to which a measure or set of measures correctly represents the concept of study. The degree to which it is free from any systematic or non-random error. Validity is concerned with how well the concept is defined by the measure (s), whereas reliability relates to the consistency of the measure(s).

Abstract

The central argument of this thesis is that the study of loyalty in health and fitness centres needs to examine the issue from a variety of different angles. This is particularly evident when examining loyalty in customer services heavily influenced by social and individual perceptions, involvement and other constraints.

Annual retention rates in health and fitness are only about 50% of customers (Beddie, 2006), a figure that is very low compared to most other industries (Hillsdon, 2001a, 2001b). Two perspectives explaining the low retention rates in health and fitness centres have dominated the literature:

- *service quality*, assessing customer's perception of the performance of the service provider
- *constraints* such as body image concerns, anxiety, lack of a suitable training partner all can impact on loyalty.

Although service quality and constraints have been widely explored, there is a gap in research over the relative effect of both service quality and constraints together. Both service quality and constraints have independently contributed to a better understanding of loyalty in health and fitness centres. The thesis therefore examines constraints (structural, interpersonal and intrapersonal) as well as service quality to determine how they affect loyalty of customers in health and fitness centres.

During the course of the study, a survey instrument, the CSSIL (combined service quality, satisfaction, involvement, loyalty) was developed. The instrument consists of questions relating to service quality (Alexandris, Zahariadis, Tsorbatzoudis, & Grouios, 2004b), satisfaction (Alexandris, et al., 2004b), involvement (Murray, 2000), and loyalty (Lee, Graefe, & Burns, 2007). Five private health and fitness centres were assessed. Tests, including exploratory factor analysis (Direct Oblimin rotation), were conducted to establish the mean of each factor. The factors were then entered into a mediated hierarchical regression. Lastly, the mediated variables were tested using Sobel's (1982) test for mediation.

The findings show that some service quality factors are more powerful predictors of loyalty when compared to constraints and vice versa. However, the most important finding was that considering service quality and constraints together provides a more complete account of loyalty within health and fitness centres. This is further highlighted when considering the role of involvement.

The findings clearly indicate involvement factors, such sign value and centrality, are important mediators for both service quality and constraints, and their influence upon the attitudinal stage of loyalty. The involvement factor, attraction, was also a mediator

for both service quality and constraints, and their influence upon the behavioural stages of loyalty. In terms of constraints, some intrapersonal and interpersonal constraints were not offset, even when the individual was highly involved in group fitness classes. In contrast, structural constraints were offset when participants were highly involved in group fitness classes.

The study reported in this thesis may assist in helping managers form a better understanding of both service quality and constraints in predicting loyalty in health and fitness centres. Furthermore, the current thesis indicates service deficiencies or some types of constraint may not always lead to defection, as involvement can help maintain loyalty. It is anticipated the findings may be implemented by management to change specific aspects of the service to increase involvement and satisfaction within health and fitness centres.

Assessing the relative importance of service quality and constraints in predicting loyalty within private health and fitness centres

CHAPTER 1

Introduction to the research

Chapter 1 provides the background to the research. It details the reasons for the research while highlighting the unique contribution of the study to the field. It provides an overview of the conceptual and theoretical basis of notions of *satisfaction*, *service quality, involvement* and adherence to exercise. Ideas, which when examined, contribute to an understanding of the reasons for an individual's *loyalty* to a health and fitness centre. Once the conceptual and theoretical rationale for the study has been established, Chapter 1 will then outline the main research questions for the study, the significance of the study, the justification for the study and key assumptions and limitations; and provides the outline of the thesis.

1.1 Background to the thesis

The mass media[1] frequently transmits images of flawless male and female physiques, resulting in many women and men often feeling an internalised pressure to emulate these idealised media images (Engeln-Maddox, 2005; Markula, 2009). Repeated exposure to such images has the power to reinforce the belief that an ultra-slim or muscular physique symbolises, even creates, a positive self-image (Garvin & Damson, 2009; Iannos & Tiggemann, 1997; Rogan, 1999; Tiggemann, 2000; Tucker, 1982).

Media exposure may explain why only a limited number of male and female body shapes are deemed acceptable in society, and the negative implications for the individual if they do not possess such a body shape (Markula, 2009; Rothblum, 1990). For example, people who deviate from the socially prescribed ideal slim or muscular physique, particularly those who are overweight or obese, are more likely to experience stigma and discrimination (Karris, 1977; Lewis & Puymbroeck, 2008; Staffieri, 1967). This is well documented and largely appears to be irrespective of age, holding across one's lifespan, from childhood to adolescence and throughout adulthood (Karris, 1977; Sarlio-Lahteenkorva, Stunkard, & Rissanen, 1995; Staffieri,

[1] Comprising of multiple sources, including television, internet, movies, and fashion magazines.

1967); and that obesity at an early age may impact upon one's self-concept later in life due to the effects of such stigma and discrimination (Lewis & Puymbroeck, 2008).

Due to the significant negative psychological (stigmatisation), social (exclusion) and biological (health risk) issues linked to lack of exercise and obesity, both males and females may attempt to change their physique for self presentation[2] or health reasons (Leary, Tchividijian, & Kraxberger, 1994; Ogden, 2007). There are generally four ways weight loss can be achieved: diet, surgery (which may include liposuction or gastric bypass surgery[3]), exercise or a combination of all three (Ogden, 2007).

Both diet and surgery have been linked with a range of other bio-psychosocial issues. For example, extreme dieting has been linked to anorexia and bulimia, resulting in health problems, but also exacerbating the development of potentially negative interpersonal relationships between the individual and their friends and family (Botta, 1999; Comer, 1998; Iannos & Tiggemann, 1997; Ogden, 2007). Similarly, gastric bypass surgery may not be the safest approach to weight loss. Side effects may include damage to digestive processes such as the ability to process the correct amounts of nutrients and vitamins for the healthy functioning of the body (Chapman, et al., 2004), which, without the nutrition provided by the proper digestion of fruit, green and yellow vegetables, and sufficient dietary fibre can succumb to cancer (Doll, 1992). Side effects as a result of bypass surgery may potentially heighten the risk of a variety of cancers, particularly of the digestive system. This type of surgery is typically, therefore, viewed as a last resort.

There is a valid argument that both dieting and certain types of surgical procedures, as opposed to addressing the underlying problem, may actually be responsible for a host of additional biological, psychological and social issues, and should be practised with caution. Ogden (2007) argues that one of the major causes of obesity is inactivity, and further highlights the point that activity has the potential to address both biological[4]

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[2] Also called impression management which refers to processes people use to monitor and control how they are perceived by others.

[3] Most of the stomach and duodenum are bypassed (Cummings et al., 2002).

[4] Ogden (2007) argued exercise reduces health risks, and exercise releases endorphins.

and psycho-social issues[5]. Rogan (1999) has argued that there is a cultural trend for both males and females to attain the perfect body through exercise rather than diet. Overall, it seems exercise is a healthier approach to weight loss and is currently gaining in popularity as people become more aware of the health risks associated with both diet and surgery and inactivity.

The perceived negative impression associated with being either overweight or obese may lead individuals to start an exercise program with the desire to reduce their weight and, possibly, to gain a more positive self-image (Rogan, 1999; Tiggemann, 2001). Unlike diet, which has traditionally tended to be the province of women, exercise has traditionally been engaged in by both men and women wanting a more toned and healthy looking physique. With the hyper-fit[6] physique starting to become a popular female ideal in the mass media, women are increasingly being attracted to cardio-based exercise. This mesomorphic[7] body image ideal for men and women can only be attained through exercise (Lenart et al., 1995), thereby tacitly promoting a healthier avenue to achieve desired body appearance goals (Garvin & Damson, 2009). Specifically, Featherstone (2010) has taken the broader physical appearance literature and re-directs this literature to physique/body image. For example, related to one's body image is a belief that a person's qualities (status, social acceptability etc.) can be symbolised and confirmed through their physique. Accordingly, positive perceptions of an individual's physique have been shown to positively influence other's perceptions of the individual (Featherstone, 2010; Rivers, 1994; Twine, 2002).

Given the cultural trend toward exercise in the quest for a perfect figure (Rogan, 1999) and good health, there has been a dramatic increase of people choosing fitness-based activities like aerobics in health and fitness centres (ERRAS, 2008). Australia's health and fitness industry has experienced record growth, with an estimated 2.6

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[5] Ogden (2007) argued exercise increases an individual's level of subjective well-being by improving mood, self-esteem and self confidence.

[6] This ideal is a popular image promoted in health contexts including health and fitness centres, diet centres, and health magazines directed at both men and women. This ideal is defined as an extremely low body fat percentage with high muscle definition specifically in the upper body, abdominals, and quadriceps (Garvin & Damson, 2009).

[7] Mesomorphic is defined as wide shoulders, narrow waist and low fat levels.

million (15.6%) people now participating in activities directly organised by a health and fitness centre or indoor sport centre (ERASS, 2008). In 2005-2006, the Australian health and fitness industry was regarded as a multi-million dollar industry (ABS, 2006), and was growing in popularity in other countries (IHRSA, 2005). In 2001, over 50 million people in the United States participated in sport and fitness activities (IHRSA, 2005). Similarly, in the Republic of Ireland, Mintel (2002) also notes record numbers of people choosing to join health and fitness centres.

In relation to the types of behaviours that participants engage in at fitness centres, it has been suggested that as many as ninety percent of people prefer to exercise in group fitness classes rather than on their own (Annesi, 1999). Statistics show, in fact, that group fitness participation is the most popular organised physical activity in Australia for both males and females (ERASS, 2008[8]). There are an estimated 1.3 million people participating in group fitness classes aged 15 years and over.

The sheer size of this group of participants suggests that from both a consumer, as well as social perspective, group fitness participants are an important segment of the population to study. However, to date, participants of group fitness classes have been the target of limited direct research (Frederick, Havitz, & Shaw, 1994; Van Vugt, Howard, & Moss, 1998). This is even more surprising when it is considered that in Australia aerobics[9] had a thirty-five percent increase in total participation between 2001 and 2008, the largest increase of any physical activity in Australia. Accordingly, an assessment of the broader factors that influence participation in health and fitness centres, and group fitness classes in particular, is long overdue.

Despite concerns about a sedentary society, large numbers of Australians are actually paying a substantial amount of money to exercise, in particular to participate in group fitness classes organised by health and fitness centres (ERASS, 2008). A consequence is that basic market competition rules exist; health and fitness centres compete for the

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[8] 18.5% of females and 12.5% of males in Australia participate in activities organized by fitness, leisure or indoor sports centre.

[9] Includes aerobics, calisthenics, Chinese exercise, exercise bike, gymnasium workouts, military exercise, Prime Movers for over 50s, step Reebok, and treadmill excludes aquarobics and weight training, which are categorized separately by ERASS (2008)

customers' (or participants') discretionary dollar. This competition provides opportunities for, and contributes to, either defection from or on-going loyalty to a particular centre. The interaction between the perceptions of the customer and the provision of the service has led to an interest in the concept of service quality, with superior service quality being linked to loyalty (Alexandris, Zahariadis, Tsorbatzoudis, & Grouios, 2004a; Howat, Crilley & McGrath, 2008).

Research on service quality has mainly focused on the aspects of the service that are readily assessed, for example, the cleanliness of the facility, and staff responsiveness. However, broader than perception of service quality on its own, a customer may also feel high levels of personal satisfaction through interaction with the service. Accordingly, high levels of service quality appear to be closely linked to high levels of satisfaction and drive feelings of customer loyalty (Alexandris, Zahariadis, Tsorbatzoudis, & Grouios, 2004b). Service quality cannot guarantee loyalty, however, and there are many cases of health and fitness centres providing superior service quality, but still experiencing low retention rates (Hillsdon, 2001a), which leads to a question of why customers satisfied with a service defect.

An explanation might be found in body image literature which lies outside traditional service quality literature. Individuals attending a health and fitness centre may experience changes in their mood, given that how they would like their physique to look, or how hard they had to work for any change, is likely to be immensely different from what their actual physique looks like, causing dissatisfaction. Negative thoughts about their body and their appearance, triggered by a group audience within the health and fitness centre, can trigger anxiety, including Social Physique Anxiety (SPA), that can be linked to intrapersonal constraints.

SPA research indicates that the physical environment of health and fitness centres, includes a highly visible display of one's physique, which can induce self-conscious perceptions of being evaluated negatively, resulting in higher levels of avoidance and cessation of exercise programs (Hart, Leary, & Rjeski, 1989). Cooley (1922) argues that individuals perceive themselves through the eyes of others and perceive what others may be thinking (looking glass self). For example, a group of individuals who

place themselves in a group fitness setting create a social audience, which provides a benchmark for social comparison, also expose themselves to a situation where heightened self awareness makes them conscious of the fact that their physique is under potential scrutiny. This has led Hart et al. (1989) to conclude that *SPA* is a major barrier in maintaining exercise programs. Furthermore, *SPA* may lead to avoidance behaviours (Elliot, 2006; Elliot Gable & Mapes, 2006) which are expressed as a higher likelihood of customer attrition (Garvin & Damson, 2008; Hart, Leary & Rejeski, 1989; Tiggemann & Slater, 2002).

Other intrapersonal barriers have also been considered outside of the role of *SPA* but they have focused on more general leisure constraints. These include a range of intrapersonal constraints, such as anxiety, depression and skill level, structural constraints such as money, and interpersonal constraints relating to limited social interaction such as lack of friends to train with (Alexandris, Grouios Tsorbatzoudis & Bliatsou, 2001a). All three types of constraints may also inhibit participation in a health and fitness setting. However, SPA and leisure constraints have rarely, if ever, been assessed simultaneously in a single study.

Implications for the health and fitness industry are enormous. Defection has been shown to occur at a substantially higher rate in health and fitness centres compared to any other service industry, including telecommunications and retail (Hillsdon, 2001a, 2001b). It is clear that a single aspect of service quality may be inadequate to fully explain the complexities of loyalty in health and fitness centres (Alexandris et al., 2004b). Service quality is one factor and constraints faced by the individual are another that influences customer loyalty. The same service may be perceived very differently based on the perception of the individual, and their goals for participating in a health and fitness centre. Similarly, individuals will respond to, or negotiate, their constraints in a variety of ways (Jackson, 2000). Participants who attend fitness centres who do not have high levels of discretionary income, or who may not meet a physical ideal, show that some individuals will persist in exercising in the fitness centre setting. So what other factors may influence the relationship between these constructs and decisions to stay or leave a health and fitness centre?

One answer to this question may lie in the customer's level of enduring involvement with the activity. Enduring involvement may be defined as a stable pattern of behaviour in which an individual attends regularly (Kyle, Absher, Norman, Hammitt, & Jodice, 2007). But why? What produces a highly involved customer regardless of poor service or constraints? Understanding the involved customer might help explain why the less involved defect, even when they perceive the service to be excellent and there are no constraints. It could be that involved customers gain relevance and personal meaning in their lives through participation, because participation may be central to their self-image. The level of involvement may offset, or mediate, the fact that the floor is poorly maintained, that the sound system is fading and that the equipment needs replacing. Similarly, highly involved individuals may manage to negotiate, or find strategies, to offset existing constraints. Lack of discretionary income may be negotiated by reducing expenditure on other items. Work commitments may be addressed by adjusting class times, such as attending in the morning rather than the evening.

To date, the literature considered service quality and constraints as non-orthogonal – that is, as two distinct constructs. However, there is some merit in considering that constraints and service quality in the context of a health and fitness centre may, indeed, interact. Service quality may influence involvement by increasing the number of visits and length of time individuals wish to spend at the health and fitness centre. Similarly, those who are less constrained may also be more highly involved and may visit the centre more frequently and for longer lengths of time. This frequency of visitation may result in improved perceptions of service quality at the centre, as the customers' expectations become more based around the existing service, rather than an unrealistic ideal (Teas, 1994).

Involvement, therefore, may be the mechanism by which for the first time the two dominant constructs explaining behaviour in health and fitness centres may be linked.

1.2 Research problem

The current study attempted to ascertain possible relationships between predictors of loyalty in private health and fitness centres in Australia. Specifically it sought to investigate how a range of factors, focussing on structural, interpersonal and

intrapersonal constraints, and involvement, as well as more traditional measures of consumer behaviour (i.e. service quality and satisfaction) affect the loyalty of customers in health and fitness centres. Key research questions will focus upon the potential mediating variables of satisfaction and involvement and whether involvement can be considered a mediator that unites both service quality and constraints to on-going loyalty. Ten research questions below address the research problem.

RQ1: What is the full nature of the relationship between service quality and loyalty in health and fitness centres?

RQ2: What is the relationship between service quality and satisfaction?

RQ3: What is the relationship between satisfaction and loyalty?

RQ4: Does satisfaction play a mediating role in the relationship between service quality and loyalty?

RQ5: What is the relationship between constraints people face to their participation in exercise at health and fitness centres and their loyalty to a centre?

RQ6: What is the relationship between constraints and involvement?

RQ7: What is the relationship between involvement and loyalty?

RQ8: Is involvement a mediator between constraints and loyalty?

RQ9: Is involvement a universal mediator: Will involvement factors influence service quality?

RQ10: Is there a causal loyalty chain such that attitudinal loyalty leads to conative loyalty which in turn leads to behavioural loyalty?

1.3 Significance of the research

The two dominant constructs to explain behaviour in health and fitness centres are service quality and constraints. However, service quality and constraints have seldom, if ever, been examined simultaneously, although both have provided their own body of evidence of loyalty to exercise programs. The current study took these two distinct constructs and drew them together by assessing them simultaneously. The unique contribution of this study will be highlighted through the assessment of both service quality and constraints together, studying their simultaneous effect on customer loyalty in a health and fitness context.

The leisure constraints literature applied to health and fitness centres by Alexandris and Carroll (1997a) was extended by this study. Constraints include a context specific intrapersonal constraint called SPA, which is a version of constraints within the consumer orientated service context of health and fitness centres. The role of SPA was assessed in terms of loyalty alongside other forms of constraints shown in the more general leisure constraints literature consisting of *intrapersonal, interpersonal* and *structural constraints.* The inclusion of SPA within the current study as an additional intrapersonal constraint will be an appropriate expansion of leisure constraints literature, given the current study takes place within a health and fitness context. This has not been conducted previously and has the potential to extend our current understanding of constraints in specific leisure contexts.

What was sought was evidence of any mediating relationship between service quality and loyalty, as well as constraints and loyalty. Data analysis therefore focused upon mediated hierarchical regression analysis and the Sobel (1982) test for mediation. The thesis considered involvement as mediating relationships between either service quality perceptions or constraints to participation and customer loyalty. The current study also considers the role satisfaction plays as a mediating variable specific to consumer behaviour. There are significant managerial implications of the thesis may lead to an improved understanding of issues relating to customer retention, a significant issue for the health and fitness industry as well as broader society.

1.4 Justification of the research

Traditionally the health and fitness industry as a whole has experienced higher levels of customer turnover compared to almost any other service-based provider (Hillsdon, 2001a, 2001b). The present study moved away from the current philosophy of viewing customer churn in health and fitness centres either as a result of solely consumer factors, or solely as reflective of personal constraints. Awareness of a potential interaction between these two constructs, and the key role of satisfaction and involvement, may provide a more accurate representation of patterns of loyalty that exist in health and fitness centres.

In the context of a global recession and economic downturn, maintaining a large proportion of loyal customers is critical to the sustainability of the industry (Kyle & Mowen, 2003). Therefore, even if new membership sales were at an all time low, a focus on satisfying the current customer base may improve the financial viability of the industry as a whole because satisfaction is directly linked to profit through its influence on retention (Anderson, Fornell, & Lehmann, 1994). An assessment of factors that influence why customers continue or discontinue participating in health and fitness centres is long overdue. Traditionally health and fitness centres have placed far more emphasis on the attraction of new customers instead of developing a clearer understanding of the concept of loyalty (Hillsdon, 2001a, 2001b; Howat et al., 2008). The findings presented in this thesis could be the first step to a clearer understanding of customer loyalty in private health and fitness centres.

Service quality and constraints have rarely been assessed simultaneously in one context when considering the role that enduring involvement may play in service loyalty. This study therefore contributes to a more holistic understanding of the nature of loyalty to health and fitness centres that considers customer involvement, perceptions of service quality and constraints to participation.

1.5 Assumptions and limitations

The first assumption is that the customer is the consumer. This is consistent with earlier research that used the terms interchangeably (Kaulio, 1998; Murray, 2000). However, there is a case, outlined by Kotler and Fox, (1995), for arguing that the customer and consumer may be distinct from one another. For example, the customer may be seen as the person who buys the product or service, whereas the consumer is the one who uses the product or service. In some cases, this may be the same person (for example, buying and eating a burger at McDonalds), whereas in others it may not be (for example, a parent paying for tennis lessons for their child). However, for the current study of individuals participating in group fitness classes, it is clear that, almost universally, the customer will also be the consumer.

A potential limitation of the current thesis is that a range of constraints to participation may have already been successfully overcome by the respondents of the

survey. This is based on the fact that the existence of these customers at a health and fitness centre means that they may have negotiated at least some of the types of constraints that prevent participation. Therefore, by sampling customers that are already participating rather than who have defected, or who have not been able to initially attend, an accurate picture of the extent to which constraints impact on group fitness class participation may be difficult to acquire.

The nature of the sample population is a consistent problem that has hampered many other researchers in this field (for example, Murray, 2000; Kyle & Mowen, 2003). However, there is a case that constraints may not be single one-off events, defined as a point in space and time, and that health and fitness centre customers may experience constraints not just to their initial participation, but to their on-going attendance, to their level of participation, both in frequency (how many times per week they can actually attend) and duration (how long they can stay). This is highlighted by Kay and Jackson (1991) who studied participants and non-participants, showing that in some circumstances it was active participants who experienced a higher instance of constraints when compared to their non-participant counterparts.

Furthermore, constraints do not always result in instant defection (Kyle & Chick, 2004). The process of defection may take time. A customer may be attending a centre, for example, but not be attending to their optimal, or desired, level, due to the effect of one of many constraints. Alternatively, a customer may attend the centre, but not participate in the specific activities or classes they desire due to the effect of these constraints. Therefore, constraints can have a variety of implications for the participation patterns of current customers. Another key consideration for this study is that it would not be possible to examine the full range of factors relating to participation under any other condition apart from attending participants. Accordingly, for these reasons, the current study design of surveying attending customers was considered appropriate for the current investigation.

1.6 Outline of the thesis

The following chapters include Chapter 2, an introduction to the research providing a rationale for the study developed from an assessment of relevant literature. Chapter 3

details the methodology and places emphasis on the steps taken to carry out the study. Chapter 4 provides the results of the study summarising the findings of the study. Chapter 5, the discussion section provides a meaningful interpretation of the results and discussion of their implications. In addition, the discussion section explains the findings of the study in relation to the research problem and previous research.

1.7 Summary

The current study assessed the roles of service quality and constraints in the development or maintenance of loyalty. Furthermore, the study looks at the potential interaction between these two constructs and proposes involvement as a mediator to unite both service quality and constraints in the assessment of loyalty.

Literature review

Chapter 1 highlighted the current focus on issues of service quality to explain customer behaviour in health and fitness centres. It was shown that service quality alone might not provide a complete picture of the range of factors and processes that explain loyalty in such settings. Not only the quality of service, but also constraints on service and their relationship with involvement, satisfaction and loyalty should be considered in order to provide a more complete picture that explains customer loyalty to health and fitness centres. Chapter 1 also outlined the main research problem, and concluded by considering the limitations of the current study.

Chapter 2 provides a detailed literature review relevant to the research problem outlined in Chapter 1. Given the diversity of conceptual background inherent in the research problem, each concept will be explored separately, with links between concepts made throughout the thesis. Accordingly, Chapter 2 focuses upon five main areas of discussion, including an assessment of service quality, satisfaction, involvement, constraints, and loyalty.

2.1 The quality movement

The concept of quality has probably been important throughout human history. One only has to look at ancient artefacts from China, Greece, Egypt and Rome, France, Britain and South America to find buildings, jewellery, artworks and pottery of amazing quality (De Cenival, 1964; Roberts & Barme, 2006). However, although identifying quality has been going on for millennia, theories about the management of quality have been a relatively modern phenomenon that has accompanied the rapid growth of consumerism since World War II. Product-based, as well as service organisations, constantly attempt to meet the demands of today's customer-centred era (Gupta, McDaniel, & Kanthi-Herath, 2005 p.390). Modern customers expect quality because they are so heavily influenced by the material values that are promoted in a competitive economy (Boyer, 1980; Oyama, 1990). It could be argued that society has become addicted to the symbolic value of quality possession, the need

to consume as reflective of status (Bootzin, Bower, Crocker, & Hall, 1991). The modern customer wants what they want, when they want it, and will be dissatisfied if it is not delivered with the quality that is expected (Murray & Dixon, 2002).

With the introduction of total quality management (TQM) came an acknowledgement of the importance of meeting the expectations of customers, as it is the customer who plays the critical role in the success of the service or product received. Of particular note is the work of Deming (1986) and that of Juran, (1969, 1974, 1988) who developed the core principles and practices that constitute TQM (Powell, 1995), which characterise a management philosophy with its main emphasis on quality (Murray, 2000), and the foundation of *service quality*[10].

Consistent with the principles of TQM, Luthans (1998) argues quality is defined by the customer, since quality according to Luthans (1998) is the result of meeting or exceeding customer expectation. Philip and Hazlett (1997) have argued that leading organisations focus on continual improvements of services to maintain a competitive edge. This prime focus on quality is not exclusive to the manufacturing tradition but exists in many service industries. An example of this can be seen in the Ritz Carlton Hotel (Hurley, 2004). This hotel has a database that stores customer information so that the hotel can anticipate and customise each visit (Hurley, 2004). Employing such strategies, the Ritz Carlton Hotel has found a way to facilitate meeting and potentially exceeding customer expectations (Hurley, 2004), in essence reflecting the core principles of Deming (1986) and Juran (1969, 1974, 1988). Quality, in this regard, is defined by the customer, inferring that the delivery of quality service results in their *satisfaction*, and that satisfied customers will return and therefore be a continual source of revenue for the Ritz Carlton Hotel.

[10] As stated earlier in the general background service quality is the interaction between the customer and the service, it is how a service is delivered and how that service performs to meet customer expectations.

2.2 Service quality

Following on from the product and manufacturing tradition, there was a general belief that service quality should be conceptualised as a concrete, tangible entity. For example, 'service quality need be neither illusionary nor elusive, it can be measured and the elements which cause problems can be pin pointed and rectified' (Nel & Pit, 1993, p 37). In contrast, however, there is strong evidence that service quality may be largely an indefinable and vague construct (Brady & Cronin, 2001; Backman, & Veldkamp, 1995; Buttle, 1995) because services are composed of a number of intangible elements, often outside the control of the service provider. A romantic dinner for two at a lavish restaurant may be spoilt by an argument with one's partner, outside of the boundaries of the service itself, yet the restaurant will forever be tainted in the couple's mind. This intangibility of services makes assumptions that they are equivalent with products somewhat tenuous. Accordingly, such assumptions that service quality can be measured and assessed simply may possibly fail to consider the true complexity of the service quality concept (Philip & Hazlett, 1996).

For example, services are different from products both in terms of assessment and consumption. Services are intangible, heterogeneous and produced and consumed simultaneously and are without an owner (Tsitskari, Tsiotras, & Tsiotras, 2006; Chelladurai & Chang, 2000). Services such as health and fitness centres may exhibit more of these complex intangible associations (Alexandris et al., 2001b) than others, such as banks or accountants. Intangible characteristics in the health and fitness industry include, for example, very personal interaction between employees and customers during the service process (Alexandris et al., 2001b; Philip & Hazlett, 1996). Service delivery may vary widely between instructors and classes, causing gaps in service to occur, inferring that a health and fitness centre may provide a highly variable service, containing fluctuating and moving gaps between what the health and fitness centre intends to deliver, and what the customer actually experiences (Murray & Howat, 2002).

2.3 Service quality measuring instruments

The Nordic approach to assessing service quality advocated by Gronroos (1984) indicates that customers evaluate a service by assessing technical[11] and functional[12] aspects of that service. Thirty years ago a North American approach to assessing service quality was developed by Parasuraman et al. (1985) who used both qualitative and quantitative methods to create SERVQUAL, finding customers assessed service quality on five dimensions. The ideas of Gronroos (1984) and Parasuraman et al. (1985) have both been modified in more recent years (Brady & Cronin, 2001), specifically in terms of sports and leisure services (Alexandris et al., 2004a, 2004b).

The service quality concept is based on models from consumer behaviour (Brown, Bowen, & Smart, 1992) with the development of appropriate instruments to accurately measure the elements of service quality being a topic of great discussion in recent years. Although many studies have been conducted on service quality, it is interesting that only a small number of unique scales assessing service quality actually exist in the general service context. Even fewer have been developed specific to a health and fitness context, most being modifications of pre-existing scales.

2.3.1 SERVQUAL

Parasuraman et al. (1985) developed one of the most influential instruments to measure service quality called SERVQUAL. SERVQUAL focusses on measurement of process-related dimensions. Process quality is concerned with the assessment of elements of a service experienced during the actual service delivery experience. Most earlier research on service quality instruments tended to focus upon the process-related dimensions of service quality, with less attention to what is gained from a service after the service interaction is over (Howat, Crilley, Absher, & Milne, 1996; Lam et al., 2005).

Employing SERVQUAL, Parasuraman et al. (1985) proposed that service quality included five factors. These factors consist of *reliability, assurance, tangibles,*

[11] For example, surgical procedure carried out by a doctor.

[12] For example, nurses ability to provide drugs on time.

empathy, and *responsiveness* (RATER). Reliability expresses the perception of an organisation's performance in terms of service dependably and the accuracy of what is claimed about the service by the service provider. Reliability corresponds to what is gained from a service. Assurance refers to employees' knowledge and their ability to provide accurate information. Tangible[13] elements of a service describe an organisations' physical environment, such as the facilities, equipment, and communication materials. Empathy expresses the employees' willingness to provide individualised attention to customers. Finally, responsiveness refers to employees' willingness to help customers and provide prompt services (Parasuraman et al., 1985).

The SERVQUAL instrument originally utilised the expectancy/disconfirmation paradigm based on the gap model (Oliver, 1980). For example, Parasuraman et al. (1985) proposed that individuals rationally compare their expectations with the performance of a service. The end result is a measurement of the difference between expectations and performance perceptions (Oliver, 1980). This represents the level at which the individual's expectations are disconfirmed by the organisation's performance.

The SERVQUAL instrument is still undeniably innovative, and it has been shown to be a valid and reliable measure across a full range of service contexts (Dabholkar, Thorpe, & Rentz, 1996).

Considerable progress has been made on how perceptions of a service should be measured, as can be seen from initial work on measuring expectations to a stance towards measuring performance-only (Teas, 1993a). Expectations are defined as desires or wants a customer feels a service provider should offer (Parasuraman, Berry, & Zeithaml, 1988). Consequently, as customers consume a service the assumption is that they will compare the performance of that service with their expectations, which in-turn leads to an emotional response such as satisfaction or dissatisfaction (Kandampully, 1998). The SERVQUAL model was originally designed to measure customers' normative expectations (Parasuraman et al., 1985). However, Teas

[13] Therefore, process quality refers to overall tangible elements of a service but should not be confused with the SERVQUAL factor called tangible.

(1993b) suggests that such a definition is conceptually flawed, as it allows for multiple potential interpretations[14]. In response to Teas' (1993b) criticism, and in an attempt to defend the expectation component of SERVQUAL, Parasuraman, Zeithaml, and Berry (1994) re-defined expectations of what customers expect to receive from outstanding service organisations. In contrast, other researchers were beginning to focus on the performance as opposed to the expectations of a service.

Cronin and Taylor,(1992, 1994) claim customers' performance ratings already incorporate an inherent expectations evaluation, rendering the separate measurement of expectations unnecessary. Similarly, Cronin and Taylor (1992) highlight the superiority of performance-only measures (for example, their instrument SERVPERF) by demonstrating that they outperform SERVQUAL measures by explaining more variance in service quality. The argument between performance-only versus expectations-performance measurement is still discussed widely in the literature. Teas' (1993b) suggestion that customers' normative expectation leads to potentially multiple interpretations of the SERVQUAL instrument infers that the expectation component of SERVQUAL lacks discriminant validity, with others such as Buttle (1995) who pose similar conclusions.

Due to this criticism, there is a tendency to use performance-only measures in preference to gap types of measurement, with Crompton and Love (1995) arguing performance-only measures improve both predictive validity and measurement reliability. It seems that the use of the expectation component of a gap style measurement (such as SERVQUAL) is becoming superfluous, with performance-only measures taking precedence in service quality research (Howat, Murray & Crilley, 2005). SERVQUAL was claimed to be a generic scale applicable across various industries (Parasuraman et al., 1985). Later research found that dimensions of service quality differed by contextual setting (Brady & Cronin, 2001; Buttle, 1995),

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[14] Teas (1993b) argues one of six interpretations of expectations can be used interpreting the SERVQUAL instrument which include service attribute importance (rate expectation statements according to importance), *forecasted performance* (customers predict the performance they expect), *ideal performance* (optimal product performance or what performance can be) *deserved performance* (what customers feel performance should be in light of their investments), *equitable performance* (level of performance customers feel they ought to receive given the perceived costs outlaid), *minimum tolerable performance* (what performance must be),and finally *service attribute importance* (how important an attribute is in a customer's overall evaluation of the product or service).

including sport and leisure contexts (Alexandris et al., 2004a; Crompton, Mackay, & Fasenmaier, 1991; Kim & Kim, 1995, Koutharis & Alexandris, 2005). An argument persisted that the expectation-performance scale was better suited for diagnostic value[15] but when this was tested, SERVQUAL needed considerable modification to the scale for context when compared to SERVPERF (Carrillat, Jaramillo, & Mulki, 2007).

The transition in the literature brought about by the need to develop context specific models of service quality assessment was particularly relevant for the more complex types of service industries, such as sports and leisure settings (Murray & Howat, 2002). Such conceptual improvements have led to a greater understanding of the measurement and conceptualisation of service quality and how this specifically relates to sports and leisure contexts. However, in noting this, it still needs to be acknowledged that the majority of the wide variety of sports and leisure service quality models and instruments (for example, Kim & Kim, 1995; Howat, Murray, & Crilley, 1999) have been heavily influenced conceptually by SERVQUAL. Therefore, there is no question that SERVQUAL has played a key role in influencing and shaping the current understanding and assessment of service quality within sports and leisure settings.

2.3.2 QUESC

Research consistently demonstrates that service context strongly influences how service quality is interpreted, and therefore how it is measured (Murray, 2000; Murray & Howat, 2002). QUESC (Quality Excellence of Sport Centres) was one of the first attempts to take service quality measurement, and to develop an instrument tailored for use specifically in sports and fitness centres in Korea (Kim & Kim, 1995).

Employing aspects of process quality, Kim and Kim (1995) used data from both private and public sports organisations to develop QUESC. Their model consisted of

[15] The benefit of this would be management can easily identify problems (customer expectations versus performance) and use this information to allocate resources to improving service quality (Parasuraman et al., 1994).

33 service quality items; using exploratory factor analysis 11 factors were extracted[16]. QUESC addressed a key criticism directed at SERVQUAL, which failed to consider perceived quality as an attitude (Cronin & Taylor, 1992, 1994).

Since SERVQUAL assesses the difference between expectations and performance, Bolton and Drew (1991) argue that by using a difference score, SERVQUAL really measures satisfaction and not performance, whereas the QUESC instrument takes the form of an attitude model based on customers' importance-weighted evaluations of performance for specific service dimensions tailored to sports centres. This would mean that measuring performance-only highlights what attitudes exist about the service (Kim and Kim, 1995). Therefore, it is apparent that a number of conceptual and measurement differences between SERVQUAL and QUESC exist. Firstly, QUESC only includes items relevant to sports centres (Lam, Zhang, & Jensen, 2005). Secondly, QUESC only assesses the performance of health and fitness centres based on the items customers most desire (Kim & Kim, 1995).

However, QUESC is by no means an instrument without limitations, the most notable being the psychometric limitations inherent in its factor structure (Papadimitriou & Karteroliotis, 2000). With 11 factors, the sheer volume of dimensions results in some dimensions consisting of only one or two items, such as *price, stimulation* and *ease of mind* (Lam et al., 2005). Beyond this issue, however, it is apparent that QUESC's original conception is weak psychometrically for three main reasons.

Firstly, QUESC contains a relatively large number of factors. Secondly, as a solution QUESC is not easily interpretable as it has many items that cross-load. Thirdly, if the solution is not easily interpretable, it raises concerns about the internal consistency of the suggested factors (Papadimitriou & Karteroliotis, 2000). These problems were highlighted in a study by Papadimitriou and Karteroliotis (2000), who applied the model to private health and fitness centres in Greece, and found the 11 factor structure was not supported.

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[16] These consist of (1) ambience, (2) employee attitude, (3) employee reliability, (4) information available, (5) programs offered, (6) personal considerations, (7) price, (8) privilege, (9) ease of mind, (10) stimulation, (11) convenience.

In contrast, a four factor model has been proposed by Papadimitriou and Karteroliotis (2000). These four factors consist of *instructor quality, facility attraction and operation, program availability*, and *delivery of other services*. Additionally, two of the dimensions proposed by Papadimitriou and Karteroliotis (2000) have low internal consistency (reliability). Therefore, QUESC's lack of relevance for other health and fitness centres, combined with its psychometric limitations, brings into question QUESC's use as a universal measure of service quality for recreation and sport contexts.

2.3.3 CERMCSQ

At about the same time QUESC was being developed, Howat et al. (1996), with the Centre for Environmental and Recreation Management (CERM) at the University of South Australia, proposed a customer service quality instrument termed CERMCSQ . CERMCSQ models were based on data from relatively heterogeneous aquatic and leisure centres. The CERMCSQ instrument is a measure of service quality specifically tailored for use in public sports and leisure centres. This model originally included 15 items, with an initial examination of the factor structure indicating a four factor structure consisting of *core services, staff quality, general facility*, and *secondary services* (Howat et al., 1996). One of the key benefits of the CERMCSQ instrument is that it is comparatively short and easy to complete, unlike SERVQUAL or QUESC, therefore facilitating improved response rates and reducing participant fatigue.

However, similar problems expressed earlier with the QUESC instrument have also been directed at the CERMCSQ instrument (Lam et al., 2005). Firstly, the stability of the structure has been criticised as it raised concerns over content adequacy and internal consistency, with two of the four dimensions comprised of only two items (Papadimitriou & Karteroliotis, 2000. Later, work by Howat et al. (1999) revised the model and improved its reliability and validity, proposing a three-factor structure consisting of *personnel, core services*, and *peripheral services*. However, Alexandris, Dimitriadis, and Kasiara (2001b) state the diagnostic value of a service quality instrument with just three dimensions is problematic.

The CERMCSQ instrument was later applied to a UK health and fitness centre (Lentell, 2000), but the three factor structure failed to be supported. It should be noted that Howat et al. (1999) focused the model's application on public sports and leisure centres and not private facilities, and there may well be inherent differences in the consumer groups participating in these differing contexts. For example, expectations, and how service perceptions are interpreted, could differ widely between public and private centre customers. Afthinos, Theodorakis, and Nassis (2005) argue that there is a large difference between perceptions of service quality for public and private users. It raises the question of whether the CERMCSQ instrument could be considered appropriate for measuring service quality in private health and fitness contexts.

Finally, in review of the QUESC and the CERMCSQ instruments, studies which were conducted outside of the countries where the instruments were originally developed (for example in Greece for QUESC and in the UK for CERMCSQ) showed no cross-cultural validity of the measures, suggesting that these instruments may be cross-culturally flawed. However, one interpretation of this finding has been offered by Babakas and Boller (1992) who argue dimensions of service quality, in our example QUESC and CERMCSQ, may vary because of the specifics of a particular service which is offered. Therefore, at this stage of the thesis Babakas and Boller's (1992) interpretation may very well be the most plausible explanation for why studies cannot replicate the factor structure produced from either the QUESC or CERMCSQ instruments (Papadimitriou & Karteroliotis, 2000; Lentell, 2000). These observations imply that cross-cultural practices of service delivery may vary from one country to another.

In spite of recognised issues and the need to refine the instruments, two dominant service quality instruments (QUESC & CERMCSQ) do exist, therefore, to measure service quality specific to health and fitness centres and public sports and leisure centres respectively (Howat et al., 1999; Howat et al., 2008; Kim & Kim, 1995; Papadimitriou & Karteroliotis, 2000). These instruments, and their conceptual foundation, challenged the gap in the literature on how service quality should be conceptualised and measured in sport and leisure contexts.

One important issue that has not been resolved, however, is that the two different instruments have widely varying underlying factor structures, from proposing a three factor structure model (CERMCSQ) through to an 11 factor structure (QUESC). This variation in factor structure in service quality assessment has plagued the more general service literature, with Parasuraman et al. (1985) finding a five-factor structure extracted from the SERVQUAL instrument. Clearly, consensus still has not been found in relation to the underlying conceptual and dimensional structure of service quality, or the ideal instrument for measuring service quality across all contexts.

The initial criticisms directed at SERVQUAL have clearly not been completely overcome by the introduction of industry specific instruments. It appears that many of the early industry-specific instruments such as QUESC (Kim & Kim, 1995) and CERMCSQ (Howat et al., 1999) fail to provide a complete answer to the problems raised in the early 1990s over how to assess and measure service quality. The emphasis of previous measures of service quality that focused upon process quality attributes have been shown to measure only a single aspect of service provision. This narrow focus on process quality alone negates what is critical in many service encounters, that which is gained by being a part of the service, or outcomes for the customer.

For example, research indicates that no instrument sufficiently captures the fact that one of the main reasons people drop out of fitness programs is their inability to feel or see the positive health-related consequences of their involvement (Corbin, 1981; Dishman, 2001). This is an important consideration within the health and fitness context, as it is likely that the failure of a service provider to deliver the desired physical and mental outcomes causes defection.

2.3.4 IPO

Although not an industry specific instrument of service quality per se, it is important at this stage to highlight Brady and Cronin's (2001) multi-level model that focuses on outcome quality. Brady and Cronin (2001) propose three factors for measuring service quality. These include *outcome quality, interaction quality* and *physical*

environment quality. Outcome quality is the customers' evaluation of outcome and is the fulfilment of customers' expectations after using the service (Alexandris et al., 2006). Notably, interaction and outcome quality were both available as a measure of quality in the Nordic school of thought labelled *technical quality* (Gronroos, 1984, 2001, 2004).

One of the measures from Brady and Cronin's, (2001) original version of the IPO model to assess outcome quality consisted of the sub-dimension *waiting time* and related to staff. However, Chelladurai and Chang (2000) argue that interaction quality is a distinct factor within service quality models and therefore should be measured separately from outcome quality. Research following from Groonroos (1984) has measured both measures of outcome and staff separately and as distinct concepts (Alexandris et al., 2004a, 2004b; Howat et al., 2008). Consequently, interaction quality in the IPO instrument involves customers' interaction with the service employees, meaning that the measure can provide an assessment of staffing, otherwise identified as the human element (Alexandris, Kouthouris & Meligdis, 2006).

In addition, Brady and Cronin's (2001) model was derived from Rust and Oliver's (1994) focus on the service environment. This has been called *physical environment quality* and is reflective of tangible elements of the service which is the central focus of SERVQUAL, CERMCSQ and QUESC (Brady & Cronin, 2001; Howat et al., 1999; Kim & Kim, 1995).

The IPO model resulted in a three factor solution, part of a general move towards a three factor model to explain service quality, in particular in recreation, sport and fitness settings (Alexandris et al., 2004b; Howat et al., 1999). However, what makes the IPO instrument potentially superior to its predecessors, unlike the CERMCSQ instrument and the QUESC instrument, is that the three factor dimension structure of the IPO has shown some consistency across both situational and cultural contexts. Furthermore, the IPO instrument measures outcome quality attributes which have been applied to a variety of service settings, including fast food restaurants, dry-cleaning services, photographic development services and amusement parks (Brady and Cronin, 2001).

In particular, the IPO instrument may be seen as reflective of both the consumption of products that are tangible, as well as a need to evaluate intangible benefits from using a service. The IPO model is therefore reflective of two distinct types of service quality which exist in consumer behaviour, that of technical quality and functional quality (Gronroos, 1984; Parasuraman et al., 1985). These technical and functional dimensions of service quality have also been acknowledged by other researchers, and interpreted by Parasuraman et al. (1985), for example, as *process related* [17] and *outcome related* dimensions of service quality.

The focus on process dimensions in the QUESC instrument and the CERMCSQ instrument may be due to logistical reasons. *Process quality* is directed towards measuring tangible elements of a service as these aspects of a service are important, occur during the service interaction and are therefore comparatively easy to measure and assess. In contrast, outcome related quality has not been as widely examined by researchers in service quality research because outcome quality is an assessment by the customer which can only occur after the service is provided. This is particularly important in service settings where a defined outcome is desired.

Health and fitness centres are examples of services attempting to provide defined outcomes, with weight loss, toning and muscle growth greatly desired. Delayed outcomes are not restricted specifically to health and fitness centres, but may also occur across other service contexts, including health care or education. Results from experiences with these services are equally difficult to evaluate since, by their nature, many outcomes will be delayed, often significantly, or influenced by multiple factors. For example, patients have to rely on other process quality features such as whether nurses do drug rounds on time or their food is hot, which will influence a patient's overall level of satisfaction with the experience at a hospital.

Other fields, such as social-psychology, have consistently included the concept of outcome expectations in their models. Bandura (1997) operationalised outcome expectations as beliefs concerning the consequences of behaviour. Outcome expectations are applied within both the Theory of Reasoned Action and Theory of

[17] Process related quality was referred to at the start of the chapter and is interpreted as being the same as functional quality.

Planned Behaviour by Ajzen and Fishbein (1980, 1988). In terms of physical activity and exercise, outcome expectations are related to exercise adherence (Biddle & Nigg, 2001; Dawson, Gyurcsik, Culos-Reed & Brawley, 2001). Three types of expectation have been argued including *physical*, *social* and *psychological* (Dawson et al., 2001).

In the context of exercise, a physical outcome relates to one's beliefs that participation will improve his or her appearance. A social outcome includes beliefs that participation will aid socialisation. Alternatively, a psychological outcome relates to beliefs that participation will benefit one's psychological well-being. Therefore, if expectations do not meet the desired outcome (improved health, reduced stress, improve mood), customers are likely to defect from the service as a result of not feeling or seeing results (Alexandris et al., 2004a, 2004b).

Furthermore, Alexandris et al. (2004b) adapted the IPO model to health and fitness centres in Greece. These authors found the three factor model proposed by Brady and Cronin (2001) was supported and extended the outcome measure to incorporate aspects from the social-psychological models on outcome expectations (Dawson et al., 2001). Therefore, the IPO model as adapted by Alexandris et al. (2004a) is a context-specific instrument of service quality which addresses the inherent problem that exists in other models that are either situational or culturally restricted.

Alexandris et al. (2004b) highlights the importance of assessing outcome quality as it may be the missing component of earlier context specific models (e.g., CERMCSQ & QUESC). It appears both process and technical (outcome) quality represents a more complete picture and reflects the complexity of service quality in the assessment of health and fitness centres. Brady and Cronin (2001) argue that functional and technical quality should be measured in service quality research. While assessment of both process and technical quality was not included in earlier studies by Richard and Allaway (1993), testing a modified and augmented SERVQUAL model did attempt to include both process and technical quality attributes. Their findings corroborated researchers such as Brady and Cronin (2001), demonstrating that the process-only and technical-only items worked best as a combination when compared to the use of functional or technical quality items alone.

Alexandris et al. (2004a, 2004b) argues that this has been a limitation of the literature relating to health and fitness centres, seeing the dominant use of process quality assessment with outcome quality often being overlooked. Due to this limitation, research by Alexandris et al. (2004a) focused upon integrating outcome quality into a SERVQUAL-based instrument. The assessment of outcome quality has led to greater investigation of staffing functions in both health and fitness centres and public sports and leisure centres.

Due to outcome quality often being overlooked by research relating to sports and leisure, the CERMCSQ instrument has recently been adapted to account for a greater assessment of outcome quality (Howat et al., 2008) while still measuring process quality. More recently, Howat et al. (2008) assessed public aquatic centres analysing what they referred to as the benefits the customer attained from repeat use. Benefits included in the study by Howat et al. (2008) are comparable with outcome quality (Alexandris et al., 2004b) as they consist of relaxation and personal accomplishment benefits, which are akin to positive health-related consequences measured in outcome quality (Alexandris et al., 2006).

Interestingly, Howat et al. (2008) extend their earlier version of the CERMCSQ (Howat et al., 1999) instrument to assess outcome quality by measuring benefits attained additional to process quality, such as personnel (staffing) and tangibles (facility presentation), similar dimensions to those set out earlier in the IPO model (Alexandris et al., 2004b). Alexandris et al. (2004b), like Howat et al. (2008) has demonstrated that process quality explains significantly more variance in satisfaction compared to benefits the participants attained. Howat et al. (2008) noted that health and fitness centres have a more homogenous research population compared to the research population of customers in public aquatic and leisure facilities.

Therefore, given that the Howat et al. (2008) study took place in public aquatic centres, the claim expressed earlier was that results cannot be generalised to private aquatic centres or private health and fitness centres, as discussed previously and outlined by Afthinos et al. (2005). On the other hand, there is an alternative view that, irrespective of their public origins, the public service context, such as public aquatic

centres, still incorporates a customer oriented element of payment for a service. This payment transaction places emphasis on retaining customers at the centre, and is still under the same pressures when revenue may decrease due to customer switching.

If we relate this to public health and fitness contexts they would therefore be under similar commercial pressures (similar to private centres) to provide particular service attributes. Therefore, public and private settings may be different in terms of user segments when compared to health and fitness centres, but both public and private settings found process quality was the most powerful service attribute in explaining satisfaction (Alexandris et al., 2004b; Howat et al., 2008).

Overall, studies by Alexandris et al. (2004a) on sports and fitness centres and later Howat et al. (2008) on aquatic centres highlight that too much emphasis has been placed on the role of process quality alone. Still, both studies indicate that assessing both process quality factors and outcome quality factors does not provide a complete picture to understanding the full range of customer perceptions of service quality and its relation with satisfaction and measures of customer behaviour, such as loyalty and advocacy. Research indicates the relevance of outcome dimensions alongside process related dimensions (staffing functions, physical environment). Research on the IPO model is a synthesis of all three service quality dimensions which is applicable to a health and fitness context (Alexandris et al., 2004b). However, Alexandris et al. (2004a) maintain that management in private health and fitness centres may need to concentrate equally upon what the customer receives from the service (outcome quality) as well as how it is delivered (process quality). Therefore, extending the discussion on instruments that assess process and outcome quality the thesis will now consider how they relate to the affective and cognitive side of satisfaction.

2.4 Service quality and satisfaction

There has been some notable work investigating *service quality* and *satisfaction* in the sport and leisure industries (Alexandris et al., 2004b; Howat et al., 1999; Murray & Howat, 2002), and it is important to distinguish between the two concepts. Service quality is generally concerned with the quality of service offered by the service provider. Therefore, it is conceptualised as an attitude, and considered to be cognitive

in basis (this is reflective of the process attributes in service quality predicting satisfaction). Instruments like SERVQUAL, QUESC and CERMCSQ have been used to assess service quality by measuring tangible elements of the service which are typically more cognitive in nature (Howat et al., 1999; Howat et al., 2008; Parasuraman et al., 1985).

However, an alternative perspective, the cognitive-affective approach, considers satisfaction to incorporate both cognitive and affective evaluations (Oliver, 1997). Baker and Crompton (2000), as well as Cole and Illum (2006), all argue the affective side of satisfaction is an emotional state of mind reflecting the benefits or outcomes of an experience (this side of satisfaction is more reflective of the outcome side of service quality). There appears, therefore, to be real potential for a strong relationship between satisfaction and outcome quality, particularly in a context such as health and fitness centres, where longer-term outcomes are critical to deciding the reasons for the initial behaviour. Both satisfaction and outcome quality place importance on what has been received from the service and both tend to be reviewed post-service (Choi & Chu, 2001; Howat et al., 2008).

It is generally acknowledged that businesses that satisfy their customers are more likely to retain those customers (Fornell, 2007). Service quality influences satisfaction, with satisfied customers more likely to repurchase a product or service, say good things about that product or service, and express preference of that company over others (Anderson, Fornell, Mazvancheryl, 2004). Research on Toyota car sales found that intent to repurchase a Toyota car increased from 37% to 91% following positive sales and service experiences (McLaughlin, 1993). The literature clearly indicates satisfied customers are likely to continue to consume the product. They will also be more likely to re-use that business and be willing to spend more because of satisfaction with that service. One explanation for this may be that customer expectations are being met or even exceeded (Zeithaml, Berry, & Parasuraman, 1996).

The dominant view in the extant literature, therefore, is that service quality leads to satisfaction which in turn leads to loyalty (Fornell, 2007; Oliver 1997, 1999). In

relation to sports and fitness centres, Murray and Howat (2002) found that service quality predicted satisfaction. Furthermore, satisfaction was found to be the dominant antecedent of the future intentions of the customer (Murray & Howat, 2002). These findings are consistent with work in other areas of inquiry like destination loyalty, in which Lee et al. (2007) found that service quality predicted satisfaction (β=.73). This finding is generally also supported in other research (Soderlund, 1998; Cronin, Brady & Hult, 2000).

The need to create a context of satisfaction through provision of quality service will be necessary in order to retain existing customers, whilst still attracting new ones (Howat & Murray, 2002). Retaining satisfied customers and gaining new customers leads to experiencing faster growth compared to organisations which spend more money, time and effort to replace lost customers (Backman & Crompton, 1991a).

2.5 Dissatisfied customers

If satisfied customers lead to improved retention, then the issue of dissatisfied customers leading to defection also needs to be considered. Howat and Murray (2002) examined critical incidents of the service experience that influence satisfaction in sport and leisure centres. They found that issues with umpires and other officials on basketball courts heavily influence the development of negative critical incidents and are a likely cause for customer dissatisfaction. The implications of dissatisfaction on the part of a customer go beyond their intention to cease using the service. When a customer is dissatisfied by the service, negative word-of-mouth bodes ill for the service provider as the ex-customer shares his or her dissatisfaction. One customer who is dissatisfied is said to relate this back to their entire social network, including friends, family and work colleagues (Oliver, 1999). People who hear about the bad experiences of other customers will be less likely to conduct business with that particular centre due to a bad reputation that has resulted from poor word-of-mouth (Howat & Murray, 2002). Therefore, avoiding creating dissatisfied customers is possibly even more critical than the focus on creating satisfied ones. Avoiding dissatisfaction and creating satisfaction are, of course, two sides of the same coin.

Howat et al. (1999) assessed how problem resolution strategies could be implemented to save the customer and reduce potential dissatisfaction. For example, they assessed individuals' experiences of various problems at the centre, and how well these problems were then resolved by staff. It was shown that highly satisfied customers were those who did not encounter any problems, followed by those that had their problems resolved. Those customers who experienced problems and did not have them resolved reported the lowest levels of satisfaction, and the lowest levels of various forms of customer advocacy, such as intention to recommend the centre to friends or other people.

Specific to health and fitness centres, low retention rates in the American health and fitness industry outlined by Sawyer and Smith (1999) indicate that the average health and fitness centre loses 40% of its entire customer base each year. Kelly and Warnick (1999) report even lower retention rates, which can be as high as 75% to 80% (Kelly & Warnick, 1999).

Afthinos et al. (2005) studied customers in health and fitness centres in Greece. The underlying argument expressed by Afthinos et al. (2005) is that retention in health and fitness centres can be explained predominately by considering client behaviour much like that in any other service industry – in other words, as *consumer behaviour*. Similar to the research presented by Afthinos et al. (2005), Howat and Murray (2002), and Howat et al. (1999) , it seems that if particular services are not adequately provided this may result in customer dissatisfaction. In such a situation, the customer becomes dissatisfied with the service or product[18] and therefore discontinues the service interaction.

2.6 Beyond service quality

Alternatively, it could be argued that in any given consumer service setting, service quality does not completely determine or explain the customer's satisfaction with the experience (Oliver 1999; Murray & Howat, 2002). As the high drop-out rate (Sawyer & Smith, 1999; Kelly & Warnick, 1999) suggests, it is vital that future research

[18] Driven by the perceived low level of service quality provided.

investigates variables additional to service quality. Many aspects of a service can be influenced by affective elements which have been addressed earlier through technical quality. These affective aspects may trigger the affective side of satisfaction.

However, other affective elements may also exist which are outside the provision of the actual service. These may include a partner or significant other who alters the customer's perception of a service by pressuring the individual into spending less time at the fitness centre and more time at home with them. Therefore, a spouse or partner can ultimately determine the level of visitation to the centre, perhaps preventing the customer from attaining their desired or optimum level of exercise. This may, in turn, alter the individuals' feelings toward exercising at the centre. They may arrive at the centre in a negative mood or emotional state due to the negative interpersonal interaction they are experiencing in their private life. If small service errors then occur at the fitness centre (for example, if the music is too loud in the group fitness class), these problems may be amplified for the individual, given their emotional state. Accordingly, this may result in higher levels of dissatisfaction, and possible negative behaviours, such as complaining about the overall service or leaving the centre altogether. In this example, it results in a negative affective impact upon the individuals' overall experience at the centre even though the problem really does not exist with the service but in the wider social environment of the individual.

Clearly, therefore, in some instances there is potential discrepancy between the behaviour of an individual in terms of how they perceive a service, and their actual experiences within that service. In the previous example, a clearly satisfactory service provision does not alter a dissatisfied perception, which has been aroused by other elements of that individual's life sphere. To assume that satisfaction perceptions and the on-going behaviour of a customer may be solely attributable to the provision of the quality they experience is, at the very least, simplistic. Reichheld, (1996) coined the term the *satisfaction loyalty trap*, showing that in some instances 65-85 percent customers who claimed to be satisfied or very satisfied with services provided, nevertheless still left.

There is in the research considerable evidence that satisfaction is influenced by process quality, outcome quality and staffing functions which lead to on-going loyalty in recreation and sport settings (Alexandris et al., 2004b; Howat et al., 2008). However, Kouthouris and Alexandris, (2005) also found that there were notable portions of satisfaction that were not explained by service quality. This unexplained variance may be explained by other aspects of the customer's environment – mood, constraint negotiation, level of commitment and so forth. Highlighting this, Kouthouris and Alexandris (2005) attempted to determine whether service quality could predict satisfaction and behavioural intentions in outdoor recreation. The types of activity included lake canoe/kayaking, orienteering and archery. Interestingly, the findings did not match any previous studies which had earlier shown that superior service leads to satisfaction[19] (Murray & Howat, 2002). Kouthouris and Alexandris (2005) argue that the complex nature of satisfaction including elements such as personal (for example, personal expectations) and situational (for example, the weather) factors may influence satisfaction beyond the provision of service quality. Therefore, high levels of process quality may not necessarily result in high levels of satisfaction (Howat & Murray, 2002). Given the fact that health and fitness centres have shown to be heavily influenced by the outcome they expect to achieve, it is important to consider an albeit related concept called *experiential consumption* to determine how this may help explain the gap between satisfaction and loyalty.

2.7 Experiential consumption

Experiential consumption is similar in some ways to what a customer receives after the interaction with the service provider is over (Gronroos, 1984). When membership consultants[20] in a health and fitness centre are selling memberships, they are actually selling experiences which are based around the benefits or outcome attained through

[19] Research by Afthinos et al. (2005), Fornel (2007), Murray and Howat (2002), Ziethaml and Bitner (2000), reported superior service quality predicts customer satisfaction and increases customer loyalty.

[20] Membership consultants traditionally are those individuals employed to sell memberships in health and fitness centres.

participation. However, it is only when one actually experiences the service that they can evaluate it for themselves[21].

The notion of experiential consumption was discussed by Holbrook and Hirschman (1982). It is the idea that individuals have an affective/emotional attachment to the service, in turn feeling that they have had or gained something magical and extraordinary from a product or service (Holbrook & Hirschman, 1982). Therefore, there is a link to a product or services symbolic value, or what the service means to the individual, indicating that individuals may participate in certain activities to enhance one's sense of self.

Holt (1995) argues that four areas of consumption exist, of which *consumption as experience* is one. The second area of consumption includes *consuming as integration.* Consuming as integration suggests that customers gain meaning from acquiring and manipulating objects to indicate to others they belong to a particular group. The third area of consumption is *consuming as classification* which includes consuming for affiliation, and collective identities. Finally, *consuming as play* is a type of consumption motivated by socialising, and being able to share experiences. These arguments suggest that consumption has meaning, which determines choice behaviour and spending patterns.

Indeed, Holt (1995) goes on to point out that experiential consumption is also composed of four dimensions: *experimental, hedonic, aesthetic* and *subjective*. These four modes of consumption evoke a state of pleasure, and services operating in these dimensions can provide a magical and extraordinary subjective experience (Holbrook, 1997). These four modes comfortably operate within the principles of the capitalist consumer ethos – of wanting what we want, when we want it (Bootzin et al., 1991), believing that the service will enrich our lives.

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[21] Experiences at health and fitness centres are on-going and are produced and consumed simultaneously. This suggests that experiences restrict managements control over service quality. Services in health and fitness centres are also *perishable* because once the interaction ends, so does the service, as opposed to goods (e.g., a treadmill), which a customer keeps (Parasuraman et al., 1985).

Although the idea of experiential consumption has merit, there are still areas of concern that need to be addressed. First, most experiences we have in life can be considered extraordinary (LaSalle & Britton, 2003) and therefore memorable (Pine & Gilmore, 1999). Second, the notion of experiential consumption may be seen as potentially interacting with customer's expectations (Oliver, 1980). For example, an expectation that one will receive a *magical experience* may lead to customer dissatisfaction if the expectation is not fulfilled (Disney, 1999). Alternatively, if promised outcomes of a service are not felt or seen this may also lead to dissatisfied customers. This indicates that experiential consumption is only a cog in the machine and therefore does not provide a full explanation of behaviour. Given these limitations, at this junction of the thesis it is important to look more closely at experiential consumption as symbolism, in other words products or services that reflect symbols to others communicating a certain image or meaning (Holbrook & Hirshman, 1982).

2.7.1 Consumption as symbolism

A more recent consideration is the importance that the symbolic value of consumption, (previously linked to technical quality earlier in this chapter) plays in influencing consumer behaviour. This can be based on the idea of consuming as integration as outlined earlier by Holt (1995) that consumers acquire and manipulate object meanings. This can be viewed, for example, in the punk subculture, since punks are renowned for having added another meaning to safety pins by using them as jewellery (Dimanche & Samdahl, 1994). In this example consumption can be viewed as representative of the identity or self-concept of the punk, also known as self extension (Belk, 1985).

In the health and fitness industry as well as the travel industry, experiences are sold. This may be highlighted through an example of a person about to buy club memberships who have a desire to attain a slender physique. Therefore, the degree of dissatisfaction they experience internally (James, 1890; Freud, 1915) may be associated with certain aspects of their body that they feel are preventing them from being viewed positively by others. By purchasing a membership the individual may

feel that they are moving away from their emotional pain of body dissatisfaction towards a pleasurable outcome – an improved physique (James, 1890; Freud, 1915). However, rather than an internalised drive, for some individuals, a decision to renew a membership or continue using the membership may be related to a symbolically extraordinary/memorable/personal experience of a service. This may be perceived to improve/maintain one's physique and improve one's physical perception of themselves and to those in their life sphere (Arnould & Price, 1993; Arnould, Price, & Zinkhan, 2002). However, when considering self-concept in respect to group fitness classes, it is argued individuals who belong to a group will re-orient their self-concept to that of an institutionally-defined identity (Zerubavel, 1991). This is clearly linked, and is one of the underlying dimensions, of the concept of involvement.

Therefore, this concept of the significance of the symbolic value that group-fitness classes may provide will be highlighted through a more detailed discussion on the nature of involvement. Enduring involvement identifies, amongst other factors, how an activity can be symbolic to an individual's sense-of-self. Involvement may therefore facilitate understanding of why participants still participate when the performance of the service continually fails to meet customers' expectation, or when outcomes are not felt or seen by a customer. Furthermore, it may enhance our level of understanding as to why customers still participate when they are increasingly dissatisfied with a service. Therefore, potentially providing the mechanism with which managers of health and fitness centres can directly reduce/prevent defection in this instance, perhaps saving the industry millions of dollars in lost revenue due to customer's exiting.

2.8 Involvement

In the next section a critical discussion will be carried out on the history of the involvement construct alongside its use in sport and leisure. The construct will then be analysed in terms of its structure, dimensions and applicability within the current thesis.

The involvement construct was initially intended to refer to personal relevance or ego when Sherif and Cantril (1947) developed ego involvement in social judgment theory

to explain political persuasion. Ego involvement was conceptualised as an individual's attitude that becomes aroused through interaction with his or her social environment (Sherif & Cantril, 1947). Sherif and Cantril, (1947) found attitude in ego involvement from social judgment theory represented importance, meaning and relevance to a product. These were aspects also thought to be critical in making decisions about one's self and others' behaviour (Wiley, Shaw & Havitz, 2000).

Sherif and Cantril (1947) conceptualized involvement as an attitude developed through interaction with the physical environment of what is important or relevant or meaningful. Extending the basis of the work done by Sherif and Cantril (1947), Krugman (1965) adapted the involvement construct to a consumer behaviour setting to predict consumer behaviour and spending patterns, and Rothschild (1984) used terms such as psychological state of motivation, arousal, and interest in describing involvement[22]. Emotional attachment to a product would help to determine decision making processes and explain product need, choice behaviour and spending patterns (Wiley et al., 2000). Despite potential, however, the majority of studies using involvement as a factor to explain behaviour produced only low involvement scores towards products (Laurent & Kapferer, 1985; Havitz & Dimanche, 1997), and researchers lost interest in the construct in the consumer behaviour field.

However, involvement remained a topic of relevance in other disciplines, such as in sport and leisure studies. This interest was driven by Selin and Howard's (1988) work on ego involvement and leisure behaviour using principles from consumer behaviour. Wiley et al. (2000) used leisure to understand the emotional attachment or meanings associated with certain leisure activities in order to help explain choice behaviour. This created a transformation of leisure studies, since it changed the way particular leisure practices were viewed (Havitz & Dimanche, 1997). For example, the literature on leisure and involvement began to analyse the relevance and meaning of the leisure activity to an individual's sense-of-self (Wiley et al., 2000). Involvement therefore in the current study is explained by how we think about leisure, and how it affects our behaviour (Havitz & Dimanche, 1997; Rothschild, 1984).

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[22] In which these states (psychological, arousal etc) were attached to either an activity or product.

Involvement has now become a central concept when analysing and explaining sport and leisure behaviours, with Bergadaa, Faure, and Perrien, (1995) indicating that involvement is a major research variable in this field, having the potential to explain individual differences in behaviour. The support for this argument is provided through a diverse range of leisure contexts in which involvement has been studied. These include complaint behaviour (Twynam, 1992), loyalty to a travel service (Pritchard, Howard, & Havitz, 1992), travel intention (Norman, 1991), men and women's involvement in sports (Wiley et al., 2000), and more recently, consumer loyalty (Lee et al., 2007; Oliver 1999).

Although involvement can be considered an essential construct to help explain many leisure contexts, it is still important to determine how involvement was constructed in order to display a clear and concise representation of this construct with leisure researchers concentrating more upon attitudinal definitions of involvement[23]. For example, Selin et al. (1988) define involvement as '…the state of identification existing between an individual and a recreational activity, at one point in time, characterized by some level of enjoyment and self-expression being achieved through the activity' (Selin et al., 1988: p 237).

Similarly, Havitz and Dimanche (1999: p 122) define involvement as 'an unobservable state of motivation, arousal or interest toward a recreational activity or associated product. It is evoked by a particular stimulus and has drive properties'. From this definition it could be argued that involvement was triggered by its connection to the self, needs and values, or in other words, that attitudinal involvement was viewed as a way to understand the underlying cognitive but also affective attachments to activities which influence choice behaviour. Relating back to the satisfaction loyalty trap previously mentioned, it could be argued that the affective role of involvement plays a key role in predicting loyalty within consumer behaviour settings.

Beyond the attitudinal component of involvement, another perspective of involvement is proposed by Kim, Scott, and Crompton (1997). Kim et al. (1997)

[23] This has its origins in the use of involvement in consumer behaviour research

argue that behavioural involvement is an important facet in determining people's behaviour, even more so than attitudinal components of involvement[24]. Havitz and Dimanche's (1999) definition of attitudinal involvement focuses upon how an individual perceives a given activity, in contrast to behavioural involvement which is more concerned with the actual behaviour itself[25]. The findings from Kim et al. (1997) reveal that behavioural measures of involvement are the strongest predictor of intentions to remain in an activity (in this case bird watching) when compared to either attitudinal measures of involvement or commitment measures.

The reason for the inclusion of behavioural measures is based on the premise that, although individuals may be aroused and enjoy an activity[26], they may not be serious about it[27] (Kim et al., 1997). On the other hand, Wiley et al. (2000) argue that other research provides an equally valid argument that individuals can have high levels of involvement with an activity[28], irrespective of duration and frequency of participation (behavioural measures of involvement). Wiley et al. (2000) draw upon studies using activity involvement to support their claims. These studies include downhill skiing (Havitz, Green, & McCarville, 1993a), weightlifting (Lemann, 1987) and risk recreation (McIntrye, 1992), and this finding is also acknowledged in a more recent study by Alexandris, Kouthouris, Funk and Chatzigianni, (2008) on Greek skiing customers.

2.8.1 Situational versus enduring involvement

Laverie and Arnett's (2000) research proposes that involvement is divided into two dominant perspectives. These perspectives include situational and enduring involvement, with the latter being linked to hedonic[29] involvement with a leisure activity.

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[24] Also termed in the literature as attitudinal involvement

[25] For example, frequency of visitation, the length of time spent in the behaviour and the level of experience of the participant.

[26] This typifies the attitude component.

[27] This typifies the commitment component.

[28] In other words activity involvement.

[29] Leisure for pleasure.

Enduring involvement has been associated with a product or a service that is continually consumed. Motivational properties of enduring involvement are said to be both intrinsic and stable (Kyle et al., 2007). This occurs as a motivational state is evoked leading to a repeated behavioural response, as discussed in the definition by Havitz and Dimanche (1999). In contrast, situational involvement is a temporary state based on a desire to obtain extrinsic goals[30].

Situational involvement can be represented by a hypothetical example of a couple who are looking to get married in three months time. The soon-to-be-married couple is named Mark and Charlene. Charlene continually tells Mark he needs to lose weight for their wedding day as she does not want Mark ruining the pictures by being overweight. Mark is very upset by all this, as he did not realise that Charlene was so image focused. Charlene is very persistent and becomes irritating, so to have an easy life, Mark promises Charlene that he will join a health and fitness centre and drop a few extra kilos for their wedding day pictures.

Mark finally finds the courage to join the local health and fitness centre. However, after the second week of gym work, Mark finds the whole process of working out laborious, and subsequently wants to quit. He decides to continue, however, as it is only for the next three months in order to fit into his wedding suit, as well as fulfil his obligation to Charlene. Purchase or participation in situational involvement is therefore seen as dynamic, changeable and transitory (Kyle et al., 2007). After the wedding day, Mark is likely to quit his participation in the gym as the motivation to attend came from external sources that have been eliminated from the immediate environment.

The differentiation between situational and enduring involvement can be further highlighted using the example of a mother contemplating buying her daughter a health and fitness membership as a birthday gift. Upon entering the health and fitness centre she encounters environmental factors such as suggestive selling, first visit incentives and in-store promotions. In turn, she decides it is a good idea to buy a one month membership for her daughter to see whether she likes it (she is the customer

[30] E.g. praise or fulfilling an obligation.

but not the consumer). In this case the mother has just exhibited high situational involvement, derived from the premise of a temporary importance of a service (a birthday gift) supported by the immediate environment (incentives and discounts).

Situational involvement is, therefore, considered dynamic, changeable, and transitory (Kyle et al., 2007). In contrast to the mother's demonstration of situational involvement, the daughter starts attending the health and fitness centre and believes it was the best birthday present she has ever received from her mother. The daughter enjoys all aspects of the health and fitness centre, especially the classes, and becomes highly involved, preferring the classes and attending regularly (enduring). In turn, the daughter decides after the month to buy herself a 12 month membership. (She has become both the customer and consumer.) This example highlights both the situational involvement exhibited by the mother and subsequently the enduring involvement exhibited by the daughter.

Enduring involvement is a very useful construct, since involvement with activities like group fitness classes may lead to both higher levels of commitment and loyalty to specific service providers and their service offerings (Gahwiler & Havitz, 1998; Havitz & Dimanche, 1999; Iwasaki & Havitz, 1998). Enduring involvement might be the most appropriate construct for assessment of group fitness classes, as it is consists of the individual with the membership being involved with the activity. Enduring involvement was conceptualised as a latent construct, predicted by a number of underlying dimensions.

2.8.2 The Consumer Involvement Profile (CIP)

Alternatively, enduring involvement has been defined by Laurent and Kapferer (1985, p. 42) as '…the perception that the product is related to centrally held values, those defining one's singularity, and identity, one's ego'. There are two dominant measures of enduring involvement employed by researchers today. The first measure was developed by Laurent and Kapferer (1985) – the Consumer Involvement Profile (CIP) scale, whilst the second was proposed by Zaichowsky (1985), the Personal Involvement Inventory (PII). The main difference between these two measures is that CIP is a multi-dimensional measure whereas PII is a uni-dimensional measure.

Zaichowsky's (1985) PII is a scale constructed of 20 bipolar adjectives related to a particular product. In contrast, CIP consists of four dimensions, including importance, pleasure, sign value and a fourth profile termed risk (Laurent & Kapferer, 1985). Evidence favours the use of the CIP, since Frederick, Havitz, and Shaw (1994) argue that it is no longer appropriate to view involvement as a uni-dimensional construct because it is clearly more complex than originally considered, and includes both attitudinal and behavioural components. The factors of the CIP are clearly more appropriate for enduring involvement in group fitness classes, since this particular context is high in both risk and sign value which will now be discussed further in relation to their importance to this type of setting.

2.9 Factors of involvement

There are several factors of involvement including the importance of the product, the enjoyment and/or pleasure derived from the product or service, and the perception of self-expression achieved through the product or service (Alexandris et al., 2008; Havitz & Dimanche, 1999). Watkins (1987) and then McIntyre (1989) added centrality borrowed from Wellman, Roggenback, and Smith's (1982) work on specialisation, which includes a centrality to lifestyle dimension. Finally, risk probability and risk consequence relate to both making a bad choice and the resultant consequences of that bad choice (Dimanche, Havitz, & Howard, 1991)

2.9.1 Attraction

Looking at the involvement factors more closely, McIntyre's (1989) study of enduring involvement revealed *attraction* to be the strongest predictor of continued participation in leisure pursuits. The scale developed by McIntrye (1989) was derived from an assessment of Laurent & Kapferer, (1985), Watkins (1987), and Wellman et al. (1982). A key finding of McIntyre's (1989) study was that the importance of an activity and the pleasure of that activity for the individual actually load on a single factor, which he interpreted as attraction (also referred to as hedonic leisure by Selin et al., 1988). Subsequent research revealed the loading of these two items onto a single attraction factor (Dimanche et al., 1991, 1993; Kerstetter & Kovich, 1997). Importance and pleasure are therefore renowned as items that load on a single factor

labelled attraction. Therefore, McIntyre and Pigram (1992) propose attraction can be conceptualised as recreationists' perceptions of activity importance and pleasure gained through participation in the activity.

Furthermore, McIntyre (1989) examined lifestyle choices and personal investments[31] made by an individual to support their continued association with the activity. McIntyre (1989) suggests that incremental increases in investments (for example, time, money, other opportunities that are not taken up) influenced the strength of the individual's attachment to an activity, with higher investment resulting in higher levels of attachment.

Havitz and Dimanche (1990) further examined involvement factors in a conceptual framework, examining the concepts of attraction, centrality, and self-expression. These concepts, as mentioned earlier, have shown they can be reliably measured within most leisure contexts (Havitz & Samdahl, 1997; McIntrye & Pigram, 1992; Wiley et al., 2000).

2.9.2 Centrality

Comparing *centrality* with sign value, there are clear parallels between the two constructs and both are linked to high levels of enduring involvement (McIntyre, 1989). Centrality is a preoccupation with a given activity that begins to dominate people's lives (Watkins, 1987). In contrast, sign value refers to the impression one wishes to convey to the world (Havitz & Dimanche, 1997). Centrality is similar to acquiring information from books and different magazines, while sign value is assimilating that information and presenting it in your own way to the rest of your social group. In group fitness classes this may be as simple as searching the internet and subsequently buying new weight gloves designed specifically for group fitness classes to show off in body pump[32].

The new equipment symbolises the participant's level of involvement and announces it to the group. It also reflects centrality, since the individual may have spent

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[31] For example, financial and social.

[32] This class is comprised of high repetition weight training to music in a group setting.

countless hours on the internet searching for the rare weights gloves that no one else has in the class. This indentifies two things, first this activity is central to the individual's life and second the individual wants to express to the rest of the word that this activity is important to them and reflective of who and what they are.

2.9.3 Sign value and risk in health and fitness centres

Sign value

In recreation and sports contexts symbolic value is an important element that has been incorporated successfully into the literature and is potentially a key underlying factor of involvement for certain people. *Sign value* relates to what participation in the behaviour brings to the individual in terms of the image or the desired portrayal it potentially gives others. There is a school of thought that sees sign value as integral to many leisure experiences (Havitz & Dimanche, 1997), as well as experiential consumption (Holbrook & Hirshman, 1982), since experiential consumption often takes the form of conspicuous behaviours and settings (Sirgy, 1982). Behaviours in the public sphere are typically seen as being high in symbolism or sign value. Havitz and Dimanche (1990, p.183) state that 'recreational activities that affect an individual's appearance…, allow for public demonstration of skills…, or demonstrate belonging to a group…, would be expected to elicit high sign value score'.

As noted by Havitz and Dimanche (1990), sign value appears to be context specific, with behaviours that have a public display element potentially having higher levels of sign value compared to behaviours that have lower levels of public display. Supporting this supposition, low levels of sign value have been exhibited in a number of contexts, such as skiing (Alexandris et al., 2008), which, although taking place outdoors, is not a public display, demonstrating that sign value is not a universal driver of involvement in every recreation or leisure behaviour (Dimanche, Havitz & Howard, 1991; Havitz & Howard 1995).

However, we can see the potential for clear ties to behaviour in health and fitness centres, and most notably, the symbolic value that customers could gain from participating in group fitness classes. Douglas, Field and Tarpey (1979; p 598) state that self image is 'man's most valuable possession and is the key to his behaviour'. If

this is the case, sign value is likely to be an important predictor of a customer's behaviour since group fitness classes allow for individual self-expression (Frederick, Havitz, & Shaw, 1994) which may be key to why certain customers participate. Havitz, Dimanche, and Bogle (1994), for example, report that 40 percent of all customers in their study within health and fitness centres participated for symbolic reasons. Of interest, however, was that customers who participated for symbolic reasons exhibited lower levels of attraction toward the behaviour (Havitz et al., 1994). This highlights that specific to fitness behaviours, symbolic reasons are central to why an individual participates (Havitz et al., 1994).

Risk

Risk as a component of involvement may be seen as a multi-faceted construct with two sub-dimensions. The first is related to the probability of making a bad choice, termed by Dimanche, Havitz and Howard (1991) as *risk probability*. The second is related to the perceived importance or significance of negative consequences as a result of that poor choice *(risk consequence*). To demonstrate, Stephanie is a new customer of a health and fitness centre and is about to embark on her first ever group fitness class. While Stephanie waits for the class to begin, she may get nervous and her heart rate may rise. At some point during this experience Stephanie may have post-purchase thoughts. Stephanie may visualise herself looking foolish when attempting the detailed choreographed movements in the class, bumping into other members and accidentally tripping others over, as the rest of the class stares at her in horror (risk probability).

These negative thoughts make Stephanie doubt whether she should have joined the health and fitness centre in the first place, as surely she is going to look foolish by the end of the class (risk consequence). These perceptions of risk could impact on a range of post-purchase thoughts that Stephanie might have. For example, Stephanie could begin to regret her initial decision to join the fitness centre, and even potentially look at ways to extricate herself, personally and financially, from the situation. The potential for risk of a poor decision is heightened in a consumer setting that emphasises public display, such as a health and fitness centre. This is even more apparent given the social pressures on appearance discussed earlier in Chapter 1.

Body image pressures and the prevalence of the ultra-thin ideal and hyper fit ideal in this context may exacerbate the perception of risk, and would inevitably heighten or enhance the potential consequences of risk for those individuals who do not meet a given socially prescribed physical ideal (Garvin & Damson, 2008).

A summary of the discussion on involvement indicates that there has been a marked movement away from a unidimensional assessment of involvement (Zaichowsky, 1985) towards a more multi-dimensional construct (Arora, 1993; Laurent & Kapferer 1985; Kyle, et al., 2007; Reid Crompton & Havitz, 1993; Schuett, 1993). Dimanche et al. (1991) have suggested that most studies support the view of a multi-dimensional construct of involvement. In contrast, previous studies that viewed involvement as a unidimensional construct have been heavily criticised for failing to consider the underlying complexity of the involvement construct (e.g., McIntyre, 1989). Furthermore, given that there is consensus over involvement as a multidimensional construct, the central issue for the present study is which of these factors is the most important in a health and fitness centre. Frederick et al. (1994) argue that sign value and risk would be important dimensions in a health and fitness centre due to the conspicuous public nature, as well as the risk involved in positioning oneself in front of a public audience. Moreover, Murray (2000) shows both risk and sign value are significant predictors of behavioural loyalty in a health and fitness context. Given that the findings of Murray (2000) are supported by Havitz and Dimanche (1997) and Havitz et al. (1994), it seems that an assessment of risk and sign value in group fitness classes is appropriate.

Finally, Alexandris et al. (2008) show that attraction and centrality are important factors in predicting loyalty to the activity of skiing. The CIP (Laurent & Kapferer, 1985) has become the dominant measurement of involvement in the leisure literature, and also measures both risk and sign value, as well as attraction and centrality, indicating it may be a suitable measure in the context of health and fitness centres given the full range of involvement constructs included within this measure (Murray, 2000).

2.10 Commitment

One aspect of the health and fitness industry is the common feature of trying to tie a customer into a business relationship through a range of prohibitive behaviours, such as creating barriers to exit. These traditionally include fiscal commitment such as yearly memberships (Hurley, 2004). If a customer looks for ways to extricate themselves from their membership this may result in switching costs including procedural[33] relational[34] and financial costs[35] (Jones et al., 2007). The current thesis will not only explore fiscal commitment and its role in influencing behaviour in health and fitness centres, but also other forms of commitment. Although not a central part of the thesis, some forms of commitment such as psychological commitment have been linked with the attitudinal component of loyalty (Park, 1996; Park & Kim, 2000). Consequently, commitment in its different forms (including sociological and psychological commitment) will be used to highlight why involvement may be a critical variable to consider in research on loyalty in health and fitness centres.

2.10.1 The sociological perspective on commitment

From a sociological stance, researchers have stressed conditions external to the individuals that underlie commitment, such as social bonds and financial investment (Becker, 1960; Buchanan, 1985). Johnson (1973) identifies two types of sociological commitment – personal and behavioural.

Firstly, personal commitment is characterised by the personal benefits that result from participation. For example, an individual who attends group fitness classes in order to enjoy the good feeling associated with the activity demonstrates a personal commitment to a behaviour which they find intrinsically motivating (Johnson, 1973).

The benefits are similar to those noted in Kelley's (1983) classification of the indirect benefits of continued participation which consist of physical, psychological and social benefits that exhibit an inherent value. The *physical* benefits of participation, in this

[33] The potential time and effort checking out alternative providers.

[34] Relationships between staff and customers (Kim, Park, & Jeong, 2004).

[35] Forgoing membership fee.

case, would be the outcome of the activity, such as losing weight; whereas the *psychological* outcome may be increased self-esteem for the individual. The *social* benefits of participation may be the increased social networks and support that are available, which relates to the relational costs of switching to another provider (Kim et al., 2004).

Irrespective of the nature of the benefit, however, the behaviour provides personal benefits for the individual. Again Kelley's (1983) work has a potential link to outcome quality as reflected in research by Dawson et al. (2001) on outcome expectation which includes physical, psychological and social outcomes.

Secondly, Johnson (1973) argues that behavioural commitment, in contrast to personal commitment, is characterised by either social commitment or cost commitment. Social commitment is similar to Becker's (1960) description of side bets and Kelley's (1983) notion of the social costs of termination. For example, a person remains with a sporting group or organisation in order to avoid the negative reaction from his team-mates following a defection (Becker, 1960; Kelley, 1983). On the other hand, a customer does not switch service providers because they are financially tied to their provider due to monthly or yearly fees, with the cost of cancellation forcing the customer to remain in the relationship (Jones et al., 2007).

Therefore, a general consensus in the literature is that the sociological perspective on commitment is a multi-dimensional construct consisting of attitudinal and behavioural mechanisms that attach individuals to regular patterns of leisure behaviour, making them unwilling to change (Kim et al., 1997). This may instil a tendency in individuals participating in recreation to resist changes (Crosby & Taylor, 1983).

2.10.2 The psychological perspective on commitment

When first proposed as a concept of academic study, commitment was defined as '…consistent behaviour that persists over time and that is partly characterised by the rejection of comparable alternative activities' (Becker, 1960, in Siegenthaler & Lam, 1992: p 304). Similarly, Buchanan (1985: p 402) argues that commitment is 'the

pledging or binding of an individual to behavioural acts which result in some degree of affective attachment to behaviour or the role associated with the behaviour…'.

Commitment has been characterised by terms such as 'dedication', 'cost', 'centrality of lifestyle' and 'conviction' (Kim et al., 1997). However, extending this idea of psychological commitment the Sport Commitment Model highlights the complexity of the interactions that occur between social, involvement and financial variables in on-going commitment to a behaviour that has a degree of volitional control, such as sport or recreation (Scanlan et al., 1993a).

2.10.3 The Sport Commitment Model

Scanlan et al. (1993a) define the Sport Commitment Model as 'a psychological construct representing the desire and resolve to continue sport participation' (p 6). The model, originally proposed by Scanlan et al. (1993), is similar to the definition offered by Buchanan (1985)[36]. However, the Sport Commitment Model applies commitment to sport participation rather than to the brand, in other words commitment to the behaviour as opposed to commitment to the company.

The model proposed by Scanlan et al. (1993a) suggests five key components as the antecedents of psychological commitment. These include sport enjoyment (hedonic pleasure), personal investment (benefits and costs in the activity), social constraints (expectations and norms creating obligation to participate), involvement opportunities (valued opportunities such as physical, psychological, and social benefits which are present only through participation) and involvement alternatives (alternative activities of interest, different from the main activity). Therefore, the greater the level of enjoyment with the sport, the higher the personal investment, the higher the social constraint, the more the involvement opportunities and the fewer involvement alternatives the higher the levels of sport commitment (Scanlan et al., 1993a).

The Sport Commitment Model has its origins in leisure theory and is based on the premise that enjoyment is a critical component predicting sport commitment (Scanlan & Lewthwaite, 1984; Scanlan, Stein, & Ravizza, 1989; Stein & Scanlan, 1992).

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[36] The pledging or binding to *behavioural* acts creating an affective attachment to behaviour.

Scanlan et al. (1993a) assessed young elite sport athletes showing enjoyment was the dominant predictor of sport commitment, followed by involvement opportunities and personal investment. If we consider basic leisure theory, enjoyment or pleasure is one of the underpinning foundations (along with intrinsic motivation and freedom of choice) for any behaviour to be considered as leisure (Kaplan, 1975). Therefore,, although the Sport Commitment Model has its origins in sport, it has wider applicability in other volitional settings, most noticeably recreation and leisure.

For example, Alexandris, Zahariadis, Tsorbatzoudis and Grouios, (2002a), focusing on the Greek health and fitness industry, used simultaneous regression analysis to assess the role of sport commitment as a contributor to overall commitment to a recreation or sport behaviour. Their findings indicated that the Sport Commitment Model explains 44% of the variance in commitment to fitness behaviour, which is a notable amount of total variance explained.

However, of particular interest was the fact that their study highlighted the fact that enjoyment was not the dominant predictor of psychological commitment in a health and fitness context. Instead Alexandris, Zahariadis, Tsorbatzoudis, and Grouios (2002a) identified involvement opportunities as the main predictor of commitment, then personal investment, and social constraint. Therefore, if we are to consider involvement opportunities as analogous to involvement, involvement in a health and fitness context needs to be assessed.

This observation is similar to the argument that the more highly involved an individual is in an activity, the greater the sign value and lower the effect of attraction (McIntyre, 1989). Likewise, it was highlighted by Alexandris et al. (2002a), showing individuals are motivated by a range of factors in addition to enjoyment. Clearly, as suggested by the Sport Commitment Model, the level of involvement of the individual appears critical. Consistent with the premise proposed earlier in this thesis that involvement in behaviour (e.g., soccer or football) is a precursor of commitment to an organisation (e.g., a club). Similarly, another point highlighted by Alexandris et al. (2002a) is the role that the presence of social constraints may play in the commitment an individual has for a particular setting or organisation.

Therefore, the general theme emerging from the literature appears to be that high levels of involvement may be necessary for becoming a committed user of a leisure service agency and an on-going advocate of that agency (Iwasaki & Havitz, 2004). Consequently, it is typically inferred that an individual who is highly involved in an activity is also highly loyal to the brand. Extending this general theme, the field of relationship marketing will be discussed.

2.10.4 Relationship marketing

Clearly related to commitment is the concept of relationship marketing, which has a clear focus on retention of customers (Berry & Parasuraman, 1991; Gronroos, 1984). Although relationship marketing has traditionally been a neglected area in the health and fitness industry (Hurley, 2004), it is now gaining popularity (Hurley, 2004; Campbell, Nicholson, & Kitchen 2006). A central question that underpins relationship marketing is what type of business practices produce conviction in customers, leading to loyalty, rather than defection (Morgan & Hunt, 1994). For example, service calls[37] made by a health and fitness centre may give the manager of a centre an idea of why a specific customer has decreased their attendance. However, no number of service calls will help the customer, or the provider, to directly overcome or address these obstacles.

Based on this potential for lack of outcome, relationship marketing could be a misdirected retention strategy that neither prevents defection nor cures it, but perhaps only buys the centre time (more payments made by the customer, until they finally decide to exit). This is primarily as a result of relationship marketing approaches traditionally placing a main focus upon purely cognitive factors Cognitive bonds include service quality or other types of structural bond. However, focussing on cognitive factors, as we have seen, is simplistic in that it presumes that satisfaction is solely attributable to the service quality experienced, a view that hardly accounts for the complexity of satisfaction (Kouthouris & Alexandris, 2005).

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[37] Service calls made to customers track their progress.

The relationship approach appears to be too often based upon a one-sided Machiavellian pursuit focused solely on an organisation's profitable returns. This shallow approach means that the root of any potential customer issue that impacts on loyalty is not addressed; and there is a strong argument that relationship marketing approaches can only really provide a short-term resolution to an on-going problem.

Relationship marketing is useful in that it highlights the importance of preventing defection, but it does not adequately detail reasons why services fail and what determines these failures. This type of failure is inherent in the traditional view of relationship marketing. Berry and Parasuraman (1991), for example, identify three types of relationship marketing bond including financial (discounted membership costs), social (points of service contact between centre and customer) and structural (service quality).

Each of these three types of bond reflects the underlying limitations of relationship marketing. For example, a study of the UK health and fitness industry argues that the main focus needs to be upon the creation and establishment of genuine social bonds between centres and customers in order for management to create truly loyal customers (Campbell et al., 2006). Hurley (2004) points out that one way to achieve this is through the provision of high levels of service quality (structural bonds), which is assumed to facilitate attachments between customers and the service provider. This has the potential to increase the number of contact points between the service and customer, which may lead to the development and maintenance of critical social bonds that exist between a service organisation and its customer. However, a singular focus on providing expected quality of service (for example, well maintained equipment) does not necessarily increase the attachment to the organisation, in this case the centre. Likewise, financial bonds may reduce income based constraints, but do not necessarily improve customers views of the service.

In contrast, Ziethaml, Berry, and Bitner (2000) posit a fourth bond called customisation (the centre/service responds to a customers' individual needs). An example of customisation would be buying a pizza, such as Hawaiian or Pepperoni, but also being able to specify your preference for toppings such as prawns or

anchovies, which normally would be outside the standard toppings on such a pizza. Central to this notion is that these customisation bonds go beyond even the social bonds highlighted previously and directly enhance commitment, involvement loyalty and customer retention (Ziethaml & Bitner, 2000).

Including a customisation component in a service augments that service, changing it from a service that is largely generic to one that is more personalized and tailored to the preferences of an individual consumer. Thus customization may contribute to the consumer receiving a unique and memorable experience from the service which links to experiential consumption and outcome quality. Therefore, it seems that relationship marketing is a good attempt to look beyond structural components of a service. However, it still does not provide a holistic approach to the examination of a service negating certain key determinants of loyalty, such as the role of constraints highlighted in the Sport Commitment Model.

2.10.5 Commitment and involvement

The impact of both involvement and commitment on loyalty provides one example of the similarities between the constructs, and a number of researchers have linked involvement and commitment (Havitz & Dimanche, 1990; Iwasaki & Havitz, 2004; Park, 1996), particularly in relation to their ability to predict loyalty. Although both commitment and involvement are related, the literature has suggested both commitment and involvement are distinct, with involvement being an antecedent to commitment (Iwalsaki & Havitz, 2004). For example, Iwasaki and Havitz (2004) indicate that becoming a loyal client of a recreation or leisure service encompasses both being highly involved in a leisure activity, as well as developing a high degree of psychological commitment to a specific recreation agency.

Involvement appears to be a psychological state related to a particular behaviour whereas commitment appears to be related to another entity, whether an individual, organisation or service provider. It appears therefore that the two constructs are strongly related, although there is sufficient conceptual rationale to consider them as distinct constructs.

Given that involvement is more linked to the activity and commitment is more related to the organisation, researchers suggest that involvement with the activity is necessary in order to establish commitment to the organisation (Havitz & Dimanche, 1999). Beyond the direct relationships discussed so far, Iwasaki and Havitz (1998) also argue that personal and social situational factors have the potential to moderate the relationships among involvement, commitment and loyalty. Therefore, it appears that variables other than involvement may influence commitment. Accordingly, it may not be as simple as involvement in the activity leading to commitment to the organisation.

In summary, involvement and commitment are linked since high levels of activity involvement can transfer to commitment to the organisation (Iwasaki & Havitz, 2004; Scanlan et al., 1993a). One main point becomes important at this juncture. Involvement opportunities as antecedents to commitment have clear conceptual and construct commonalities to the notion of involvement discussed previously. Both seem to result in outcomes that include a psychological and a social component which are present only through either enduring involvement or participation. Therefore, customer loyalty in health and fitness centres might be facilitated by the provision of quality service experiences, while the level of involvement in the activity or behaviour on the part of the individual can contribute to re-patronage or participation.

In turn, the provision of a quality experience, when combined with high levels of personal involvement, create a context where the customer experiences high levels of commitment towards the organisation. Secondly, it is clear that other factors exist beyond customer service quality and satisfaction that influence loyalty. However, one construct has been overlooked which has shown to be an important factor by Alexandris et al. (2002a), that is, constraints.

2.11 Constraints

Some areas of commitment research have not been investigated in depth in service quality instruments because they are considered non-consumer variables. One of the most notable is the significance of constraints to participation. The Sport

Commitment Model identifies constraints as a notable antecedent that impacts on commitment to sport behaviour (Alexandris et al., 2001a). Although the link between commitment and loyalty has been demonstrated in the customer behaviour literature, there has been very little focus on how external constraints may directly impact on customer loyalty. This is a potentially major omission in a service area such as health and fitness centres, where there is clear evidence that constraints to participation significantly influence adherence to exercise and fitness programs (Hart et al., 1989).

Considering constraints, a study highlighting the importance of non-consumer variables in the assessment of loyalty is that by Ganesh et al. (2000) who show service failures account for as little as 15% of defection, and 58% of discontinuance or switching is not related to performance. If we consider the argument proposed by Ganesh et al. (2000), improving perceptions of quality may not result in a notable reduction of switching or defection. Therefore, the role of constraints warrants further examination, since findings by Ganesh et al. (2000) infer that current service quality instruments are too focused upon assessing purely service quality aspects and overlook other factors outside service quality provision. An example of this neglect may regard the role of constraints amongst other non-consumer constructs (involvement).

Gerson (1999) argues that 96% of the reasons people drop out can be controlled by management. However, what is not measured in service quality instruments cannot be managed. This unmanageable gap shown in the literature may account for a large proportion of defection and cannot be managed by improving perceptions of a service alone. This was shown by Ganesh et al. (2000), but if we consider the role of constraints alongside perceptions of service quality, this may provide a better understanding for managers in terms of implementing changes within the service that could potentially counter defection within health and fitness centres.

Background to the literature on constraints. The background to the literature highlighting the significant role constraints play in determining adherence and maintenance to a given behaviour is now examined, focussing on adherence to exercise and physical activity. The discussion moves to a consideration of how this may assist in clarifying customer behaviour in health and fitness centres.

Jackson (1990a, 1990b, 1993) focused on understanding and categorising the constraints people experience when participating in leisure behaviours. This was in order to attempt to clarify the many influences individuals perceived or experienced that limits the formation of their leisure preferences or inhibits or prohibits participation and enjoyment in leisure (Jackson, 2000).

Research has consistently shown that most individuals experience constraints to their chosen preferred leisure behaviours at least to some extent. If constraints are almost universal, then it stands to reason they will impact on the end behaviour of an individual in relation to their participation in, for example, exercise activities at a health and fitness centre. Accordingly, it is important to understand the extent to which constraints shape leisure experiences and choices for individuals (Jackson, 2000).

It is equally important to understand the effect that constraints have on limiting individual choice behaviour, and the different ways that people negotiate the numerous constraints they may experience. Crawford Jackson and Godbey's (1991) findings indicate that there are three dominant types of 'leisure constraint' that impact on individual's leisure participation: structural constraints, interpersonal constraints and intrapersonal constraints.

2.11.1 Structural constraints

Structural constraints, including both time and cost, have been shown to inhibit leisure behaviour (Jackson, 2000). Structural constraints or what have been referred to as intervening constraints are those that relate to a structural impediment to the behaviour, or an impediment that is external from the individual (Crawford, Jackson, & Godbey, 1987; Henderson, Stalnaker, and Taylor, 1988; Jackson, 1990).

Typically, these structural impediments are either financial, (i.e., an individual has the desire to join a health and fitness centre but the membership cost is too expensive), or accessibility issues (i.e., the person wants to join the health and fitness centre, but cannot access the centre due to not having transport to the centre). These types of constraints have been argued to have less impact upon participation than others

(Jackson, 2000). For example, structural constraints, such as not having enough time per session to attend the fitness centre, can be easily overcome by spending less time per visit but attending more regularly per week, therefore gaining the same results.

Socio-economic status, however, appears to be one of the most common structural constraints causing lack of participation in exercise (Alexandris & Carroll, 1997b). A number of studies have clearly indicated that individuals from a lower socio-economic background participate less in physical activity than individuals from a higher socio-economic background (Crespo, Ainsworth, Keteyian, Heath, & Smit, 1999; Woodfield, Duncan, Al-Nakeeb, Nevill & Jenkins, 2002). Similarly, people from lower socio-economic status backgrounds tend to exhibit higher levels of unhealthy habits such as smoking and non-exercising than people from higher socio-economic status backgrounds.

One explanation for this may be that people from lower socio-economic status backgrounds (SES) face a greater range of constraints to participation in exercise and other health-related behaviours (Humbert et al., 2006). There may also be potential for an interaction effect since another equally common structural constraint related to SES appears to be money (Shaw, 1994). Studies have consistently demonstrated that low income females and unemployed females tend to be the most affected groups in terms of having their leisure behaviour constrained (Green, Hebron, & Woodward, 1990; Dattilo, Dattilo, Samdahl, & Kleiber, 1992). One explanation as to why women tend to be affected more by financial constraints is their lower earning power (Shaw, 1994). Similar groups with lower earning power, such as adolescents from lower socio-economic status groups have also been shown to experience clear financial constraints to their participation (Shaw, 1994).

Interestingly, individuals from lower SES backgrounds also tend to express a lack of interest in leisure participation, suggesting that lower participation levels may not necessarily be completely explained by financial constraints for these individuals. Drawing from concepts previously discussed in relation to quality service provision and keeping customers, this lack of interest may be explained by the relatively poorer services and facilities provided in lower SES areas. Humbert et al. (2006) have noted

that the physical environment, including cost, quality and access to facilities, as well as concerns for safety, are some of the factors likely to negatively influence participation for individuals living in low SES areas.

This finding is supported by Alexandris and Carroll (1997a) who note that affordability, transportation, lack of opportunity to exercise near home, loaded upon a factor they labelled *accessibility/financial constraints* which negatively influenced participation. Public transport that takes an hour to get an individual to a leisure centre, for example, would certainly discourage participation.

Another reason that may explain lack of interest to participate in leisure behaviours for people from a lower SES background is lower levels of formal education (Leboeuf-Yde, 1999). There is a wealth of literature indicating that level of education is closely related to socio-economic status (Leboeuf-Yde, 1999). Education also has its own direct effects on leisure behaviours, particularly in relation to exercise and health-related behaviours. For example, individuals who are well educated tend to be more aware of the risks of remaining inactive (for example, obesity, heart disease, and cancer) than those who are less well educated. Consequently, this awareness tends to be expressed as higher levels of participation in exercise and physical behaviours.

Searle and Jackson (1985) investigated the influence of different levels of education on perceived constraints. They found that individuals who were more highly educated perceived fewer constraints in regards to their exercising, in contrast to those who were less well-educated. Similarly, studies conducted in health and fitness centres in Greece revealed that the perception of constraints was significantly higher among less well-educated respondents (Carroll & Alexandris, 1997; Alexandris & Carroll, 1997b).

Age and gender. Age is viewed as a structural constraint whereby young and old males and females tend to be affected more, since a lack of money can negatively influence participation. Consequently, age has also been identified as a notable constraint to exercise participation. Findings suggest that exercise levels typically decrease with age (Jackson, 1993). In particular, older women are especially unlikely

to exercise (Taylor, Bandura, Ewart, Miller, & Debusk, 1985). Inactivity as a result of age is one notable factor, with studies showing that physical and personal constraints increase with age (Alexandis et al., 1997b; Jackson, 1993; Searle & Jackson, 1985). In contrast, a lack of awareness and opportunities are more significant constraints for both younger and older groups when compared with middle age groups (Searle & Jackson, 1985; Alexandis & Carroll, 1997b). Lack of time appears more notable for younger and middle-aged groups than older groups (Alexandis & Carroll, 1997b, McGuire, Dottavio, & O' Leary, 1986; Jackson, 1993; Searle & Jackson, 1985). Age is also a factor that may negatively affect the likelihood of finding a suitable training partner, whereby lack of appropriate partners were found to be experienced more strongly by older and younger participants than middle age participants (Jackson, 1993; McGuire et al., 1986). Examining the relationship between constraints and how different age and gender groups' impact upon perceived constraints has largely been ignored. For example research gaps include whether women and men differ in perceptions of specific constraints and whether different age groups are influenced more or less by specific constraints. Although research has highlighted some evidence (Alexandris et al., 2003) it has not been given the attention that it evidently needs given the obvious potential for an interaction effect that may exist between age and gender upon perceived constraints.

Although an influential constraint, structural constraints do not account for other individuals in ones' life sphere who may inhibit or prohibit participation for any given individual. This has led to what Jackson (1993) calls interpersonal constraints.

2.11.2 Interpersonal constraints

Interpersonal constraints, the second type of constraint identified by Jackson (1993) relates to constraints that are largely driven by interactions with other individuals, such as a training partner, other people you participate with, your family, your friends, and your work colleagues (in other words significant others for the individual). Focussing again on participation in exercise at a health and fitness centre, a pertinent example of an interpersonal constraint interaction with other customers in a health and fitness centre who are rude, dismissive or even aggressive, making the

person feel unwelcome and creating an interpersonal constraint to continued participation at the centre. Therefore, interpersonal constraints can be considered to be constraints that are placed upon an individual by others. For example, Jackson and Henderson (1995) suggest that women scored higher in dimensions of social isolation and social and physical skills, which have direct links to their experience of both interpersonal and intrapersonal constraints (in that order). Lee and Scott (2009) found that leisure constraints have a negative effect upon frequency of leisure activities. Extending this idea, Alexandris and Carroll (1997a) found that one of the dominant interpersonal factors within leisure constraints is the lack of suitable training partner labelled lack of partners. This indicates that a training partner can have a negative influence upon how often a customer participates in a chosen activity, for example if a training partner continually misses sessions or is late for training sessions the individual may not to attend the centre to their optimum level as a result of only wanting to train when their training partner is present.

Rather than solely being restricted to the site of the leisure behaviour (in our case, a health and fitness centre) interpersonal constraints may also include relationships and interactions with others that are outside the confines of the centre. An example may include constraints that are generated through a customer's relationship with their spouse. Let's consider a hypothetical example to highlight this case. Peter and Laura are married and Peter spends approximately two hours a day four times a week after work at his local health and fitness centre. As a result, Laura is starting to feel neglected. Laura discusses this with Peter and requests that he spend more time at home as she wants to do more things as a couple during their free time. In turn, Peter at first dismisses Laura's feelings but each time he arrives home Peter and Laura get into an argument about his whereabouts and the length of time he has spent at the health and fitness centre. Laura is convinced Peter is seeing another woman, which Peter denies. However, Peter anticipates his participation at the centre will result in yet more fights with Laura when he arrives home each evening and eventually stops attending his local health and fitness centre. Although, Peter has the desire and will to participate, his participation in the end becomes dictated by interpersonal constraints, in this case a jealous spouse who cannot be reasoned with. This extreme case shows that in some instances participation can be governed by another person even though

the individual still has a strong desire and will to participate they still may defect. The underlying premise for interpersonal constraints is that the individual is required to successfully negotiate the perceptions, attitudes and feelings of those in one's life sphere (Jackson & Witt, 1994). For it to be a constraint, these perceptions, attitudes and feelings of significant others must be negative towards the desired leisure behaviour of the individual, hence creating the constraint. However, there are also times where individuals can successfully navigate through the minefields of constraints, this is seen in the negotiation through constraints. Therefore, a concept for consideration at this juncture of the thesis is negotiation through constraints.

2.11.3 Negotiation

Researchers have more recently attempted to define how people actually overcome constraints to their participation, focusing on the role of negotiation through constraints (Jackson, Crawford, & Godbey, 1993; Jackson & Rucks, 1995). Jackson et al. (1993) added further to the theoretical development, by including the negotiation and balance propositions. Lists of these propositions have been developed by Jackson et al. (1993) and are outlined in Table 1.

Table 2.1: List of propositions adapted from Jackson et al. (1993).

	Definitions
Proposition 1	Participation is dependent not on the absence of constraints (although this may be true for some people) but on the negotiation through them.
Proposition 2	Variations in the reporting of constraints can be viewed not only as variations in the experience *of* constraints but also as variations in success in negotiating them.
Proposition 3	Absence of the desire to change current leisure behaviour may be partly explained by prior successful negotiation of structural constraints.
Proposition 4	Anticipation of one or more insurmountable interpersonal or structural constraints may suppress the desire for participation.
Proposition 5	Anticipation consists not simply of the anticipation of the presence or intensity of a constraint but also of anticipation of the ability to negotiate it.
Proposition 6	Both the initiation and outcome of the negotiation process are dependent on the relative strength of, and interactions between constraints on participation in an activity and motivations for such participation.

Proposition 1 argues that participation can still occur even if constraints exist, with the negotiation through constraints. This, however, may result in a modification of the original intended participation. For example, it was stated earlier that women are argued to be more restricted in leisure participation than men (Jackson & Henderson, 1995). One possible explanation of modification as seen in proposition one may be the inherent restrictions women face in their fulfilment of a normative role of the caring mother who does not want to leave her children and go and exercise, and potentially be viewed by others as selfish. This may also relate to proposition 2, which suggests variations that occur in reporting and experiencing constraints, such as not being able to find anyone to look after the children while she exercises. Therefore, the mother in this example may anticipate she will be unsuccessful in negotiating or bypassing proposition 4, which states insurmountable interpersonal or structural constraints may inhibit ones' will to participate. However, in many modern health and fitness centres the use of facilities such as a crèche may enable many mothers to participate. Therefore, the mother in this example may choose a centre with a crèche such that the absence of desire to change ones' current leisure behaviour may be a result of prior successful negotiation of structural constraints, relating to proposition 3. Furthermore, for the mother in this example, if she also faced work constraints, negotiating through this constraint could be to go part-time as opposed full time. This may have relevance to proposition five whereby an individual anticipates constraints but also anticipates how to overcome these constraints. To highlight this, Warren (2004) showed people employed part-time had more time for leisure behaviour than those who were employed full-time. Therefore, this would be a way mothers can fulfil the role of a caring mother and maintain skills in the workforce and earn an independent wage, as well as have time to become fit and healthy.

However, these types of negotiation scenarios are heavily dependent upon the balance proposition (proposition 6). Proposition 6 by Jackson et al. (1993) states initiation and outcome of the negotiation process depends on the severity of the constraint, the interaction between constraints and the motivations for participation. For example, the interaction between constraints can be highlighted by using the mother in the

previous example. Let's assume she has mastered many of her previous constraints but still does not attend a group fitness class because she is self conscious of having to wear gym clothes which are not fashionable (intrapersonal). She also has a limited income therefore she cannot afford modern gym clothes (structural). Finally, her husband may not be comfortable about her dressing in modern and potentially revealing clothing at the health and fitness centre (interpersonal). These interactions between constraints need to be considered as it is not necessarily the presence of a single constraint that leads to lack of participation, but a combination of constraints needs to be overcome. It therefore, seems logical that all three constraints may be present and work simultaneously in any given behaviour (Jackson, 1993; Kay & Jackson, 1991). This means that, for leisure behaviour to occur, individuals need a strong desire to want to carry out the behaviour (i.e., attain the desired benefit) when they encounter constraints, to enable them to overcome the constraints through the process of negotiation. However, negotiation through constraints is necessary but not always sufficient in determining participation (as highlighted earlier in the example of Peter). This suggests that participation that occurs through the negotiation of constraints may be very different from participation in the absence of constraints (Jackson et al., 1993) with the presence of constraints leading to modified behaviour.

In an attempt to understand more about the influence of constraints upon exercise behaviour, Kay and Jackson (1991), investigated the reasons given as to how participants coped with financial constraints (one of two constraints that was deemed to be most influential by participants in that particular study). Their study found that people tend to be able to overcome structural constraints and to a lesser extent, interpersonal constraints relatively easily. For example, participants reported that they either reduced their participation (60%), they didn't participate (11%), they saved up to participate (11%), found cheaper opportunities (8%), or they made other economies (4%). Of note in these figures, only eleven percent stopped exercising altogether. In contrast, 60% modified their exercise behaviour, suggesting that the most typical response when encountering financial constraints is to modify the exercise behaviour or to find alternative choices rather than to completely cease that behaviour. In addition to financial constraints, the other primary factor of importance

reported by participants was lack of time. Kay and Jackson (1991) showed that seventy-one percent reduced exercise behaviour, whereas twenty-seven percent reduced their amount of time in household chores. Kay and Jackson's (1991) findings demonstrate that, unlike the original research on barriers (Iso-Ahola, 1981), which suggested a complete block to participation, most individual participation appears to be more fluid than absolute. Kay and Jackson (1991) indicate that people are resourceful in overcoming structural constraints like time and financial constraints to participation. Although structural constraints have an impact on an individual's behaviour, structural and interpersonal constraints are typically viewed in the literature to be the least powerful types of constraint and are more readily overcome through the modification of behaviour (Carroll & Alexandris, 1997).

Again as shown by Kay and Jackson, (1991), there are multiple ways that constraints may be negotiated. Some of the negotiation strategies employed to address specifically structural and interpersonal constraints to leisure participation were outlined by Jackson and Rucks (1995). Using a student population in Canada, Jackson and Rucks (1995) identified and classified negotiation strategies that students adopted to buffer the effects of leisure constraints. The authors identified two types of negotiation strategies. The first negotiation strategy focused on cognitive negotiation (a reduction of cognitive dissonance) whereas the second negotiation strategy focused on behavioural negotiation (an observable change in behaviour). Jackson and Rucks (1995) found that the majority of people negotiating constraints employed behavioural negotiation strategies. Examples of behavioural strategies included modification in time and commitment; these may be attending the centre less regularly but for longer time per session to fulfil family commitments. The second behavioural strategy focused upon the acquisition of necessary skills, this may be as simple as buying magazines or searching the internet to learn more information about the activity. The third behavioural strategy change of interpersonal relations may be seen in finding a reliable friend who turns up to training sessions. Finally, the behavioural strategy change of leisure aspirations focuses upon for example, if a health and fitness centre only has weights and no cardio machines, you may change your goals to fit the opportunities that exist (Jackson & Rucks, 1995). It is clear

therefore, that most structural and interpersonal constraints have the potential to be negotiated effectively (Little, 2002). In contrast, there is still one constraint which is less easily negotiated called intrapersonal constraints (Jackson, Crawford, & Godbey, 1993).

2.11.4 Intrapersonal constraints

Individual/psychological constraints. Intrapersonal constraints focus upon the very personal constraints we place on ourselves that we internalise as perceived faults and for this reason intrapersonal constraints have also been referred to as internal constraints (Francken & Van Raiij, 1981) or individual/psychological constraints (Alexandris et al., 1997a).

Likewise, Crawford, Jackson, and Godbey, (1987) argued that in order for leisure preferences to form intrapersonal constraints have to be overcome first. Once the leisure preference is formed, interpersonal constraints and structural constraints need to be overcome in order for involvement to occur (Jackson et al., 1993). However, if structural constraints are strong, the result will be non-participation. Scott (1991) supports the hierarchical and negotiation propositions and adds that for involvement to occur constraints need to be fully negotiated.

The individual/psychological constraint factor has been shown the most difficult to overcome (Alexandris et al., 1997a). This is particularly notable when considering intrapersonal constraints in visual display contexts, such as those apparent in health and fitness centres (Alexandris et al., 2001a; Hart et al., 1989). Consistent with this argument, activities that place a greater emphasis upon female physique have been shown to be associated with higher levels of body shame[38] potentially inhibiting participation (Martin-Ginis et al., 2003; Katula et al., 1998). Consequently, if we are looking at the context of negotiation of constraints in health and fitness centres, given the high level of exposure of one's physique this may lead to higher levels of intrapersonal constraints and may therefore be linked to customer attrition (Garvin & Damson, 2008; Tiggemann & Slater, 2002; Hart et al., 1989).

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[38] Reflecting an *intrapersonal constraint*, which will be discussed later.

Botta (1999) argues that body image has three components, a perceptual component (how a person visualises their body), an attitudinal component (what they think about their body and how committed they are to obtaining their ideal) and behavioural manifestations related to body image (restrained eating and dieting, and exercising). The perceptual and attitudinal components are highlighted by Silberstein, Striegel-Moore, Timko, and Rodin, (1988) in their study on body image issues. Employing Fallon and Rosin's (1985) body size drawings, the study indicated that women have different perceptions from men on the type of female physique that men find attractive. For example, women selected thinner female body size drawings, which they believed men find more desirable, yet the actual body size drawings men desired or preferred were much larger than those chosen by the female participants. Moreover, mounting evidence seems to indicate that the behavioural component in body image is becoming increasingly expressed as a decision to exercise, or to increase levels of physical activity.

As mentioned previously in Chapter 1, one of the dominant desired physiques for females is ultra-thin and is very different from males who desire the mesomorphic V-shaped appearance[39]. Therefore, the portrayal of muscularity in men may have similar effects to society's emphasis of women and the desire to be thin (Garner et al., 1980). Alternatively, although an ultra-thin physique has been the dominant image promoted in media, also widely represented in media is a second popular female physique often referred to as the hyper-fit physique[40]. Interestingly, this appears more closely linked to the mesomorphic body type desired by males. The hyper-fit female physique is promoted in health and fitness centres, diet centres and popular male and female magazines (Garvin & Damson, 2008).

It is possible a desire for the ultra-thin image and the hyper-fit physique may co-exist in a health and fitness context. It could be further argued that, particularly for women, it may be harder to attain the hyper-fit physique compared to the ultra-thin fashion

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[39] This is an average build, with well-developed muscles on the chest, arms and shoulders, and a slim waist and hips.

[40] This is defined as an extremely low body fat percentage with high muscle definition specifically in the upper body, abdominals, and quadriceps.

model ideal (Garvin & Damson, 2008). This may be due to the amount of muscle sculpting that is required in developing the hyper-fit physique, which, if not attained, may induce general discontent and body image dissatisfaction. A study by Garvin and Damson (2008) reports the healthier, larger, idealised, hyper-fit images of women when viewed by female participants produced psychological affects[41] when compared to a control condition. Interestingly, similar psychological effects were also found in males viewing hyper-fit males.

Body image dissatisfaction is linked to identity theory (McCall & Simmons, 1966). For example, one's private identity tends to remain concealed and is rarely disclosed to others, potentially leading to psychological effects such as anxiety as a result of failures to meet an ideal (Higgins et al., 1986). Paradoxically, one's social identity needs to be expressed and affirmed through social interaction. Self image includes the ideal self, real (actual) self, and looking glass self (Douglas et al., 1967). Relating self image to body image dissatisfaction, the ideal self is the way an individual would like to be or their body to look. The actual self is the way the individual views themself. The looking glass self is the way a person views themself or their body through the eyes of others. Negative psychological effects occur when the actual self or actual body image does not match a person's ideal self or ideal body image (Duval & Wicklund, 1972; Tiggemann, 2001).

Haggard & Williams (1992) use identity theory to argue that identity can impact upon a person's selection of leisure activities. This is consistent with an earlier study by Bain, Wilson and Chaikind (1989) who found that the major contributing factor prohibiting exercise in overweight women was that they were able to be seen whilst exercising (looking glass self), leading to embarrassment because of the perceived judgement by others. Without doubt the mass media[42] reinforces a manufactured body image, and such images represent ideal physiques that are far from most people's actual body image (Iannos & Tiggemann, 1997; Tucker, 1982). Therefore, it is important to discuss the related concept Social Physique Anxiety (SPA) as an intrapersonal constraint occurring specifically in health and fitness centres.

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[41] These include anxiety, mood, and body image dissatisfaction.

[42] Including television, internet, movies, and fashion magazines.

Social Physique Anxiety (SPA). SPA is an emotive response that an individual experiences from an assumed negative internalisation of others perceptions of their physiques[43] (Hart et al., 1989). Hart et al. (1989), Eklund, Mack, and Hart (1996) and Crawford and Eklund (1994) all argue that SPA is a dominant intrapersonal constraint in the health and fitness context because of the high level of physique exposure and visual display of one's physique. Traditionally, SPA is more commonly reported by females than males, and historically the female body has more socio-cultural importance and focus placed on it in comparison to the male body (Hart et al., 1989; Rogan, 1999; McAuley, Bane, & Mihalko, 1995; Eklund et al., 1996).

Generally, those more affected tend to be women that weigh more, are taller, and have a higher body fat percentage, who typically record higher levels of SPA (Cox, Lantz & Mayhew, 1997). However, more recent studies have also shown that both males and females are affected by SPA (Petrie, Diehl, Rogers, & Johnson, 1996). SPA is deemed to be a dominant intrapersonal constraint in health and fitness centres, and may be seen as a central construct in self-presentation[44] literature, including processes like physical self-efficacy[45] or performance anxiety[46] (Hart et al., 1989; Eklund et al., 1996). Clearly, in the context of health and fitness centres, SPA may have the potential to negatively impact upon behavioural forms of loyalty (Hart et al., 1989; Lantz Hardy & Ainsworth, 1997).

Leisure centre literature has shown that both structural and intrapersonal constraints are the most commonly experienced type of constraint. For example, Kay and Jackson (1991) showed that structural constraints were the most common constraints experienced in leisure. This was partially confirmed in a health and fitness context by Alexandris et al. (2004a). However, it was also reported in Alexandris et al. (2004a) that while both intrapersonal constraints and structural constraints were experienced, intrapersonal constraints were more difficult to overcome (Alexandris et al., 2008).

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[43] Hart et al. (1989) defines physique as body fat, muscle tone, and general proportions.

[44] Also called impression management refers to processes people use to monitor and control how they are perceived by others.

[45] Self efficacy is one's belief or confidence they can achieve a given behaviour.

[46] Performance anxiety is anxiety or fear when one has to perform in front of a pubic audience.

The omission of the significance of SPA in service quality instruments such as Kim and Kim's (1995) QUESC instrument, imply that SPA may help provide a useful addition to QUESC in the assessment of health and fitness centres. SPA has typically been omitted from such instruments because it is not considered to be a consumer behaviour variable. However, Oliver (1999) suggests that to understand customer behaviour we need to step outside of the customer and consider the wider contextual environment. This would indicate service quality models for health and fitness centres, or swimming pools, or any activity where there is a clear display of one's physique (Howat et al., 2008; Kim & Kim, 1995; Murray 2000) should include variables such as SPA in any assessment of loyalty.

This idea has been proposed previously, with a number of studies looking at consumer behaviour (Howat et al., 2008; Kim & Kim, 1995; Murray, 2000) suggesting that the field needs to also consider a range of relevant variables in order to gain a more complete picture of factors that ultimately lead to customer retention or defection. It is clear that SPA as well as other types of intrapersonal constraint, impact upon involvement and loyalty for health and fitness centre customers (Crawford et al., 1994; Eklund et al., 1996; Hart et al., 1989).

Choice behaviour. SPA influences choice behaviour as highlighted by the range of activities and display settings that are given preference. Specifically, Frederick and Morrison (1996) examined how a person's level of SPA may influence their choice behaviour in terms of the sport and exercise they undertake. They looked at three activities: fitness activities including aerobics; team sports, including football and netball, and; individual sports including golf and yoga. High SPA participants were more likely to engage in fitness-types of activities in comparison to any other type of activity. Therefore, high SPA individuals appear to choose activities that would potentially maximise their potential for weight loss (Frederick & Morrison, 1996).

For this reason, group fitness classes in general may include a larger proportion of individuals exhibiting high levels of SPA. This is based on the premise that high SPA individuals will be attracted to the weight loss and toning components offered through

participation in group fitness classes. Given that avoidance behaviour is typical under certain conditions (Elliot, 1996), for activities like group fitness classes this may result in a negative relationship to involvement. For example, the involvement factor centrality indicates the overall significance an activity like group fitness classes has in an individual's life, or a central or key part of the self (Watkins, 1987). Avoidance type behaviour is the dominant approach to SPA (Hart et al., 1989), which can impact upon interaction with other customers leading to less likelihood of sharing information about classes or recommending books to read or websites to visit. Therefore, SPA and other intrapersonal constraints may have a certain control over how an individual acts (avoidance behaviour) and this may inturn negatively influence their level of involvement.

Moreover, concerns have been raised about how one's physique has constrained the level of enjoyment experienced in aerobics classes (Frederick & Shaw, 1995). James (2000) found that concerns over appearance of one's physique being evaluated negatively constrained enjoyment as well as participation for adolescent girls in a pool setting. The results in James's (2000) and other studies of the type of activity (for example if considered to have a weight loss component to it) identified an individual as only exercising for appearance-related reasons, therefore triggering concerns one is being judged.

Earlier in this chapter the satisfaction-loyalty trap identified customers who claim to be satisfied with a service up to eighty-five percent still drop-out (Reichheld, 1996). One explanation may be attributed to problems which exist outside of the actual service itself (Ganesh et al., 2000). If we are to consider the above argument that specific intrapersonal types of constraint (SPA and individual/psychological) can negatively impact upon our levels of enjoyment, this may change a customer's overall perceptions of a service. Therefore, when customers are asked whether they are satisfied with the service they may very well be. However, more attention to measuring personal constraints in addition to performance may be what is needed to understand the satisfaction-loyalty trap (Reicheld, 1996).

Management of health and fitness centres need to become more aware of the potential loss of revenue due to defection as a result of intrapersonal constraints. Therefore, management may need to allocate more resources to understanding SPA and other intrapersonal constraints. There have been various attempts to indirectly combat SPA as seen in the rise of women-only health and fitness centres. Effectively, this implies some level of management knowledge about certain characteristics of SPA influencing participation. However, having a women-only centre seems to in some part place the blame upon male fitness customers, making males indirectly responsible for much of the anxiety and negative experiences women may feel whilst exercising. Alternatively, it may provide a context for women of similar sizes and experiences in the activity breaking down many of the previous constraints experienced by women. This will be discussed further with reference to alternative and more practical strategies management can implement in controlling SPA.

Strategies for management in dealing with SPA. As previously argued SPA has been negatively associated with participation in physique display contexts like health and fitness centres (Crawford et al., 1994; Hart et al., 1989; Sallis & Owen, 1997). One way that management of health and fitness centres attempted to combat a range of interpersonal and intrapersonal constraints such as SPA is shown in the rise of women-only centres or areas in health and fitness centres (Yin, 2001). However this approach, whilst logical, appears to be limited, as research on women–only centres suggested that such settings do not necessarily eliminate SPA. Walton and Fikenburg (2002) compared women exercising in women-only settings with women exercising in mixed gender settings and found both groups experienced equally high amounts of SPA. This may indicate that it is not the presence of males that automatically triggers women to feel higher levels of SPA, but rather it is generally the nature of participating in front of others (male and female alike) that exacerbates the potential risk of negative appraisal. This relates back to the finding discussed earlier by Bain et al. (1989) who stated that the mere fact one is being seen exercising is enough to induce anxiety and embarrassment due to perceived negative judgement of others. This infers males and females are equally affected by SPA in contexts where there is a social audience present. Accordingly, neither SPA nor comparing oneself with others is eliminated simply by controlling the gender of the class or context.

Based on social comparison theory (Festinger, 1954) individuals exercising in the presence of others will tend to enter a process of upward or downward social comparisons. If the outcome is upward social comparison, may be a cause for physique comparison and therefore anxiety, and this will not necessarily be gender-specific.

Social comparison theory claims that when interacting with others, we engage in making comparisons in relation to whether we are superior or inferior in a given area. Depending on the context, this may be in academic performance (for example, a maths test), sporting prowess (for example a table tennis game) or appearance (for example, when on a beach). If we view ourselves as superior in the context, we make downward social comparisons. These occur when making a comparison of the self to those who you perceive as inferior (Festinger, 1954). In contrast, if we view ourselves as inferior to others, we make upward social comparisons (Festinger, 1954). For example, upward comparison may occur in a health and fitness centre if we are in the presence of another whose physique we feel is superior to ours. This may include other customers, staff or even instructors of the class. Frederick et al. (1994) shows that social comparison may be affected by the level of participation and type of experience in the activity. For example, Van Vugt, Howard, and Moss (1998) placed participants in aerobics classes where the majority of other people were both highly competent and skilled in the choreographed movements, therefore continually outperforming the new participant. Rather than comparing themselves with highly skilled individuals, participants in this condition searched for and selected individuals worse than they were at the choreographed movements to compare themselves with to make downward comparisons. This evidence suggests that the social context (customers who were highly skilled in the chorography) caused an ego threatening situation, whereby the participant shielded their 'self' by using downward comparison. Therefore, certain environments may heighten or induce negative thoughts and concerns over how one will be perceived by others.

This has clear links to how SPA may be triggered, as well as to how it may be self-managed by the individual. Festinger's (1954) social comparison theory helps show

how individuals react in both downward and upward comparison contexts through the process of self evaluation, self improvement and self enhancement. Self evaluation can be argued to be the need to gather information about oneself. Festinger (1954) indicates that individuals will gain more information when they compare themselves to similar others which is coined the similarity hypothesis. This has links to the desire to place oneself in a situation of downward comparison, to facilitate protection of the self as outlined by Van Vugt et al. (1998). Self improvement is centred within the need for people to evaluate themselves but also because they feel pressured to improve themselves (Festinger, 1954). Support from the field of observational learning (Bandura, 1986) and work on achievement motivation (Atkinson & Raynor, 1974) shows that people do exert effort in trying to improve themselves (Frederick et al., 1994). Wheeler et al. (1969) argues individuals are more prone to choosing people who are close but still somewhat superior to compare against. This has been shown because upward comparison allows people to observe more accomplished others and grow in knowledge viewing others skills (Berger, 1977). Therefore, a perceived benchmark set by an individual observing a slightly superior customer of group fitness classes may be made in an attempt to develop their own skills.

Self enhancement can be related to downward comparisons people make with inferior others to protect their self-esteem (Taylor & Brown, 1988). Individuals who may be stressed, anxious or shy (Lee & Halberg, 1989) or have low self-esteem (Hall, Durborow, & Progen, 1986) may be more likely to place themselves in situations where the greatest chance for downward comparisons may exist (Gruder, 1977; Frederick et al., 1994). This is because people can think they are a lot better than they actually are. This may be due to comparing themselves with less superior others making them feel more superior, although this does provide an unrealistic assessment. As such, it could be suggested that individuals with high levels of SPA in group fitness classes will be more likely to compare themselves with a less superior other. However, SPA in a health and fitness context may also encourage non-participation, or reduced participation as self enhancement has been associated with individuals attempting to avoid perceived negative evaluation (Brickman & Bullman, 1977).

Overall, whether a health and fitness centre is female-only or mixed, the presence of a social audience suggests comparison will occur. As such there is a clear case, when considering women-only group fitness settings, like mixed classes it will not only involve self enhancement comparison but also likely self improvement comparisons. As the same pressures associated with exercising in a mixed class may exist because of the presence of an audience. For example, if a woman in a women-only or mixed class feels that she is being observed by another person (although she may have superior skills) then she may withdraw from participation as she may perceive that another person is observing her negatively (unknowingly the other person observing her may be making self-improvement comparisons). However, the same is true for self enhancement comparisons as withdrawal may be due to the other person making the woman feel incompetent triggering psychological affects (Bain et al., 1989; Spink, 1992; Yin, 2001).

How management can 'tangibilise' SPA. Alexandris et al. (2004a) argued that practitioners and professionals need to tangiblise positive health consequences. This argument can be related to SPA, whereby practitioners and professionals can attempt to place SPA under management control.

Yin (2001) argues management consideration of the physical environment of health and fitness centres is in order to fully understand exercise adherence. An understanding of the servicescape[47] (Bitner, 1990, 1992), specifically in relation to how elements of the physical environment can enhance potential SPA concerns, means that management can then implement strategies to remove or at least minimise potential constraints.

One common approach in this regard has been the modification of group fitness class rooms by the removal, or at least part removal, of mirrors at the front of the class area. Mirrors are a common feature at the front of group fitness class areas, originally designed so that participants could monitor technique and form. The potential of these mirrors to provide a negative cue for women with SPA, however, is clear. Katula,

[47] Servicescape represents the quality of the physical environment and the resultant cognitive, emotional and physiological responses triggered from interaction with ones physical surroundings (Bitner, 1992).

McAuley, Mihalko, and Bane (1998), for example, observed that a sample of moderately active women reported feeling negative about their body image while exercising in front of a mirror. In a similar study, sedentary women also reported negative feelings following exercise performed in front of a mirror (Martin-Ginis, Jung, & Gauvin, 2003). Clearly, the physical environment of a health and fitness centre with mirrors may well elicit affective responses.

Beyond management action, it is also apparent that people with higher SPA adjust their own behaviour to minimise physique anxiety that may occur due to seeing their physique reflected through a mirror. For example, Brewer, Diehl, Cornelius, Joshua, and Raalte (2004), have shown that individuals with high levels of SPA positioned themselves at the back of a group-fitness classroom, away from prying eyes and their own self reflection in a mirror. Therefore, an awareness that a social audience can make some customers exercising in front of mirrors feel more self conscious triggering self-evaluation processes which create negative affective responses (Brickman & Bulman, 1997; Katula et al., 1998).

If this knowledge of the positioning of mirrors is made aware to management then reallocation of mirrors may provide more privacy and reduce negative thoughts. As such the evidence from the information regarding servicescape can be used to offer suggestions on how management can control SPA. This interesting paradox indicates SPA may be under the control of management without them actually realising it, since mirrors are a physical environment quality aspect and if positioned correctly through the reallocation of these mirrors, it may offset SPA in many customers.

To summarise, physical environment quality of a health and fitness centre has the potential to trigger affective feelings eliciting pleasure and arousal (Bitner, 1992; Tsiotsou, 2006; Wirtz & Bateson, 1999). An alternative argument as seen most notably in SPA literature is the fact that aesthetic cues have the potential to also inhibit participation in exercise behaviour. Therefore, it is apparent that there is an inherent complexity in the range of factors that may influence on-going participation in exercise in a health and fitness centre. Service quality, combined with negotiation of the structural, interpersonal and intrapersonal constraints that are faced by individuals, along with their levels of commitment and involvement may determine whether customers maintain their participation.

2.11.5 Linking constraints to involvement through motivation

In order to link constraints to involvement it is important to consider research on motivation. Motivation has been one of the dominant fields in psychology (Freud, 1923, 1962; Skinner 1953). Lawler (1973) examined organisational behaviour employing the expectancy-value model of motivation. Lawler (1973) proposed motivation can be assessed in terms of the hierarchy of instrumental expectations (absentee rate) and performance outcomes (more money, more praise) leading to terminal outcomes (social recognition). This stimulated interest from leisure researchers to why individuals participate in leisure behaviours (Kyle et al., 2006). Based on Lawler's (1973) study motivation was argued to initiate and maintain involvement with specific leisure activities and was understood as an individual's pursuit for specific outcomes. Iso-Ahola (1989) suggested motives are the reasons for and direction of behaviour. Motivation in leisure has been referred to as forces that influence and maintain behaviour (Iso-Ahola, 1999) allowing for participation to occur even in the face of constraints (Hubbard and Mannell, 2001; Son, Mowen, & Kerstetter, 2008). A dominant perspective in motivation proposes a two dimensional approach consisting of intrinsic motivation and extrinsic motivation (Frederick & Ryan, 1993; Iwasaki & Mannell, 1999). Intrinsic motivation is a behaviour carried out because of an internal gratification, whereas external motivation is carried out for external gains. However, there is debate to whether motivation should be measured as a global measure or instead as a multi-dimensional framework.

For example, Pelletier et al. (1995) argued for a multi-dimensional approach to assess motivation. This focused on three types of intrinsic motivation and three types of extrinsic motivation. The three types of intrinsic motivation consisted of intrinsic motivation to know, intrinsic motivation to accomplish things and intrinsic motivation to experience stimulation (Pelletier et al., 1995; Vallerand & Losier, 1999). In contrast, extrinsic motivation consisted of external regulation, introjection and amotivation. Paying attention to intrinsic motivation, motivation to know referred

to curiosity or an exploration of trying to understand new ideas whereby pleasure and satisfaction were the outcome. An example may be learning new choreography in a group fitness class that results in satisfaction and pleasure. Intrinsic motivation toward accomplishments refers to participating for pleasure and satisfaction experienced with the intention to accomplish or try something new. An example may be attending group fitness classes in order to master the detailed choreographed movements. Finally, intrinsic motivation to experience stimulation is related to flow and peak experiences (Pelletier et al., 1995; Vallerand, 2001) and relates specifically to engaging in an activity to experience stimulating sensations (sensory pleasure, fun and excitement). On the other hand, external motivation consisting of external regulation focuses on external rewards or constraints imposed by others (Deci & Ryan, 1985). Tsorbatzoudis et al. (2006) associates external rewards with participating for social recognition and Pelletier et al. (1995) relates constraints to participating to avoid negative consequences such as criticism from friends. Introjection relates to external pressure from others which are internalised such as a member of a health and fitness centre who feels pressure to look a certain way (toned and shapely) and feeling ashamed or embarrassed when they do not look their best (gained weight). Therefore, Pelletier et al. (1995) argued various forms of motivation lie on a continuum running from high self determination such as intrinsic motivation to low self determination[48] such as amotivation (relating to neither being intrinsically motivated nor extrinsically motivated).

2.11.6 Constraints and motivation

As outlined earlier in Table 1, Jackson et al. (1993) employ motivation in proposition six[49] specifically relating to the balance proposition. Carroll and Alexandris (1997) examining sport participation in Greece showed using bivariate analysis, more motivated individuals were less likely to perceive high levels of constraints. Moreover, intrapersonal constraints were shown to be the most powerful negative

[48] According to self determination theory intrinsic motivation is the energizing basis for organismic activity (Deci & Ryan, 1985).

[49] Both the initiation and outcome of the negotiation process are dependent on the relative strength of, and interactions between *constraints* on participation in an activity and motivations for such participation.

influence on motivation. A later study by Hubbard and Mannell (2001) using structural equation modelling tested the constraints effects mitigation model, proposed negotiation strategies mitigate the negative effects on participation. This model was supported, finding motivation interacts with negotiation. For example, Hubbard and Mannell (2001) argued the findings indicated constraints trigger two opposing forces, an inhibitory influence from the constraints, and a facilatory influence as a result of the negotiation efforts. These results support Kay and Jackson's (1991) findings that people with more constraints participate more than people who are less constrained. More recently, Son et al. (2008) developed the constraints negotiation dual channel model, which refers to independent and opposing effects of constraints and negotiation and indirect effects of motivation on participation. Therefore, both Hubbard and Mannell (2001), and Son et al. (2008) found the relationship between motivation and participation was mediated via negotiation strategies. Although motivation and involvement provide their own distinct developmental history in leisure related activities, Lee and Scott (2009) assessed celebrity fandom employing involvement to substitute leisure motivation. Testing a similar model to the constraints effects mitigation model and constraints-negotiation dual channel model, Lee and Scott (2009) found involvement serves as a substitute for leisure motivation. This idea contrasts other studies suggesting motivation is an antecedent of involvement (Funk, Ridinger, & Moorman, 2004; Iwasaki & Havitz 2004). However, these authors, as argued by Lee and Scott (2009), do not define what motivation actually is and their measurements of motivation and involvement appear to be very similar. One limitation with the studies assessing either motivation or its substitute involvement on constraints literature is the use of summative measures.

2.11.7 Involvement as a substitute for motivation

Paying particular attention to the conceptual similarity between motivation and involvement (Lee & Scott, 2009) it can be further argued involvement factors such as attraction reflect intrinsic motivation. For example, intrinsic motivation has been linked to behavioural outcomes related to exercise adherence (Ryan, Frederick,

Lepes, Rubio, & Sheldon, 1997). In contrast, it can equally be argued sign value reflects extrinsic motivation. This is based on Frederick and Ryan, (1993) who developed the Motivation for Physical Activity Measure. They found participants chose individual sport based activities because they were important and pleasurable, the activity was therefore associated with intrinsic motivation. In addition, Frederick and Ryan (1993) found that participants who preferred group fitness settings experienced less satisfaction and participated because of appearance based motives (like SPA) relating to extrinsic motivation. Therefore, studies by Frederick and Ryan, (1993) followed by Ryan, Frederick, Lepes, Rubio, & Sheldon (1997), suggest appearance motives such as SPA are associated with extrinsic motivation whereas choice of activities based on an important and pleasurable experience (such as attraction) was associated with intrinsic motivation.

It has been argued that sign value may be related to extrinsic motivation and provides an alternative explanation of intrinsic motivation (Dimanche & Samdahl, 1994). Foote (1951) proposed motivation is derived from beliefs about one's self and is linked to self-concept. Considering individuals may engage in exercise behaviour because of appearance reasons like SPA, it can be proposed that the involvement factor sign value may help in understanding SPA. For example, Kasser and Ryan (1996) found appearance related reasons like SPA were reflections of extrinsic desires for money and fame, suggesting sign value may be of importance in SPA. Likewise, Hart and Gill (1993) found in a private health and fitness context, the majority of women tended to prefer wearing tighter exercise clothing (which accordingly emphasises one's physique). This preference of tighter gym clothing worn in health and fitness context also potentially creates a situation in which, by definition, one's physique was then more readily exposed to evaluation. For example, activities that place a greater emphasis upon female physique have been shown to be associated with higher levels of body shame[50] potentially inhibiting participation (Katula et al., 1988; Martin-Ginis, Jung & Gauvin, 2003). In contrast, however, and possibly reflecting the interesting paradox relating to women's fitness clothing it may

[50] Reflecting an intrapersonal constraint, which will be discussed later.

act as a symbol and can be used to represent an individual in personally positive ways, therefore motivating participants through sign value.

2.11.8 Involvement as a substitute for constraint negotiation

Recently in the literature there has been a marked movement toward assessing constraints and involvement together. Involvement has been growing in importance and is far becoming a dominant construct in constraints literature (Lee et al., 2009; Jackson et al., 1993; Scott, 1991). However, a shift away from using constraint negotiation research to a more direct focus on involvement to explain how and why individuals maintain exercise programs may be needed. This is apparent in related literature by Kyle and Mowen, (2003) and Alexandris et al. (2008) employing involvement to understand constraints.

Following Lee and Scott (2009) the current thesis proposes motivation and involvement are conceptually similar constructs therefore involvement can be assessed in place of motivation. To extend this argument, following Kyle and Mowen (1993) and Alexandris et al. (2008), negotiation constraints will not be assessed, instead the current thesis proposes that involvement may offset constraints to enable participation.

2.12 Loyalty

There is evidence suggesting that the actual cost of a customer to an organisation decreases the longer the customer remains, as long-term customers require less on-going servicing (Seroka, 2000; Eben, 2000). This is relevant to recreation and leisure settings with Selin et al. (1988) stating 'loyal participants provide recreation departments with a long term sustainable source of income' (p. 218). Therefore, retaining more loyal customers of a health and fitness centre functioning at full capacity would reduce marketing expenses otherwise directed at acquiring new customers, allowing managers to reallocate these resources to improving other areas of the centre, such as relocation of mirrors to combat SPA.

Although loyalty is viewed to be an essential part of any successful business, there has been debate over how best to measure loyalty. For example, consumer behaviour

has various definitions of brand loyalty, highlighted by Jacoby and Chestnut (1978), documenting fifty-three different operational definitions of loyalty. Jacoby and Chestnut (1978), classified these definitions into three main themes: behavioural, attitudinal and composite loyalty (attitudinal and behavioural loyalty together).

2.12.1 Behavioural loyalty

Early loyalty theorists (Cunningham, 1956; Lutz & Winn, 1975) focused on observable behaviour consisting of purchase frequency (how often). However, Backman and Crompton (1991a) argued earlier studies on loyalty showed customers of products could be found to be loyal in one study but a different study using the same customers and the same context classified the customers as non-loyal, indicating conceptual confusion. Backman and Crompton (1991a) therefore concluded that behavioural measures alone were not appropriate to completely explain the full concept of loyalty. For example, behavioural measures such as how many or how often may tell us the amount of sales or visits a customer makes. However, it does not differentiate between why the purchase is made. Is the purchase as a result of habit, is it because there are no alternative options, or is it because the customer genuinely has a preference for that product? This last example may be the only one of the three that denotes a truer form of loyalty.

Therefore, to put loyalty in context, managers of health and fitness centres may perceive that they have loyal customers because the majority of their customers attend on a regular basis. The reality, however, may be that customers may only attend that particular centre because there are no appropriate alternatives available in the local area. Therefore, a major limitation of using behavioural measures is that it does not discriminate between what Day (1969) termed spurious loyalty (habit or lack of alternative choices) or purchasing based on true loyalty (intentional loyalty that includes a favourable attitude toward the brand purchased as well as purchasing the brand regularly). This inherent weakness in behavioural measures therefore led researchers to question whether there was more to brand loyalty than solely repeat use. As a result, attitudinal loyalty was incorporated as an additional measure to resolve the limitations seen in behavioural loyalty.

2.12.2 Attitudinal loyalty

Attitudes relate to an individual's positive or negative evaluation toward performing a given behaviour (Dzewaltowski, Noble, & Shaw, 1990; Thoedorakis, 1994). Jacoby (1971) contends that attitudinal loyalty is composed of psychological decision-making or evaluative processes. Several researchers claim psychological commitment (Mahoney et al., 2000; Kyle, Graefe, Manning & Bacon 2004;), resistance to change[51] (Kyle et al., 2004) and place attachment[52] (Kyle et al., 2004; Lee, Graefe, & Burns, 2007) are conceptually similar to attitudinal loyalty. Therefore, *attitudinal loyalty* extended the behavioural loyalty literature and covered areas beyond the behaviour, such as the strength of affection toward a brand based on consumers' preferences or intentions (Guest, 1942; Jarvis & Wilcox, 1976).

Alexandris et al. (2008) analysed involvement and its role in predicting attitudinal loyalty in the activity of skiing. Alexandris et al. (2008) showed that the involvement factor described previously in this chapter called centrality was a strong predictor of attitudinal loyalty. The centrality dimension refers to the overall importance or significance exercise has in an individual's life (Watkins, 1987). For example, an activity may be considered central if other aspects of an individual's life are organised around the activity (e.g., work, social activities organised around classes at a health and fitness centre).

However, whilst attitudinal loyalty enables researchers to gain a clearer understanding of the attitudes and perceptions, the affection held toward a product, service or brand, it still may not equate to customer behaviour, which ultimately is the goal in loyalty assessment. Attitudinal loyalty without question has contributed to a greater understanding of the reasons for customer behaviour, and yet it cannot replace a measurement of that behaviour entirely. Day's (1969) research, argued that loyalty is a product of regular behavioural patterns combined with a positive attitude toward the brand. Consequently, attitudinal loyalty, when considered on its own as a

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[51] Resistance to change brand preference (Prichard et al., 1999)

[52] Place attachment is an emotional and functional attachment to a recreation place (Alexandris, Kouthouris, & Meligdis, 2006).

complete measure of loyalty, lacks both psychometrically sound instrumentation and theoretical conceptualisation (Jacoby & Chestnut, 1978; Muncy, 1984; Pritchard, Howard, & Havitz, 1992).

2.12.3 Composite loyalty

Day (1969) contends that true loyalty only exists when the consumer buys the brand regularly as well as displays a strong positive attitude toward the specific brand. Day (1969) found that combining both behavioural and attitudinal loyalty together made the predictive power toward the brand twice as strong compared to using a model employing simply behavioural measures alone.

However, Backman and Crompton (1991a, 1991b) focused upon the concept of composite loyalty, extending the parameters of the loyalty construct. For example, Mahony, Madrigal, and Howard (2000) argued that previous loyalty research before Backman and Crompton (1991a, 1991b) viewed individuals as either loyal or non-loyal, providing a simplistic view to a complex construct. Backman and Crompton (1991b) viewed loyalty as a construct with a two dimensional structure, including attitudinal loyalty and behavioural loyalty measures. Critically, they proposed that these two dimensions can be separate as well as related. Therefore, Backman and Crompton's (1991a, 1991b) studies did not follow previous research on brand loyalty (for example, the club or the centre you were loyal to) but revolutionised the literature by addressing activity loyalty (in other words, golf or tennis as an activity, independent of the club or venue of which the activity was performed). This meant loyalty could be categorised based on customers' psychological attachment or the strength of an individual's attitude/commitment toward the activity.

Furthermore, Backman and Crompton (1991a) argued that variables such as involvement and commitment may exert an influence on both attitudinal and behavioural loyalty. Backman and Crompton (1991b) found that involvement was the strongest predictor of loyalty, therefore indicating involvement as a central antecedent to loyalty formation. According to Assael (1984) true loyalty can only take place under situations associated with high involvement. Backman and Crompton (1991b) contend that a combination of the two measures, termed composite loyalty, and

attitudinal loyalty were both predicted by the level of involvement an individual exhibits towards golf and tennis. On the other hand, levels of involvement were not predictive of behavioural loyalty warranting further explanation. First, involvement has been viewed as central in the formation of attitudinal loyalty (Alexandris et al., 2008; Assael, 1984; Backman & Crompton 1991a). Secondly, that for behavioural loyalty other mechanisms play a role, or at least influence its formation. For example, Selin (1988) argued under some conditions of low involvement, habitual behaviour predicts participation as opposed to active decision making (cognitive thought processes such as attitude). Furthermore, this supports the notion that some individuals participate in activities without affective attachment, supporting the role of spurious loyalty. Therefore, research by Backman and Crompton (1991b) indicates a two dimensional perspective of including both attitudinal and behavioural loyalty is warranted, since the combination of these factors distinguishes habitual behaviour from true loyalty.

The two dimensional perspective of loyalty by Backman and Crompton (1991b) assesses participants' general feelings toward the activity of golf or tennis (attitude), using a 15-item semantic differential scale. Participants were also asked to report frequency of participation over the previous twelve months (behavioural measure)[53]. Backman and Crompton (1991b) studies used a two-dimensional matrix to distinguish between weak or strong attitudes and high or low behavioural consistency.

Table 2.2: The loyalty paradigm (adapted from Backman & Crompton, 1991b).

		Psychological attachment / attitudinal loyalty	
		Strong	Weak
Behavioural consistency	High	True (high) loyalty	Spurious loyalty
	Low	Latent loyalty	Low (non) loyalty

[53] The length of time is problematic because it raises the question how can respondents be accurate in their recollection given the lapse of time between events?

Participants demonstrating high attitudinal loyalty as well as high behavioural loyalty were categorised as exhibiting high (true) loyalty (Table 2). Participants who exhibit high behavioural loyalty, but low attitudinal loyalty, were categorised as exhibiting spurious loyalty. Backman and Crompton's (1991a, 1991b) studies further indicate that individuals expressing spurious loyalty toward the activity will have low attitudinal loyalty and a high drop-out rate. In contrast, participants who were strongly attached to the activity (high attitudinal loyalty) but exhibited a low frequency of participation (i.e., low behavioural loyalty) were categorised as exhibiting latent loyalty. Latent loyalty is when an individual expresses the intention to participate, but due to constraints such as time or money. The individual does not engage in the activity regularly. Finally, participants who exhibited low levels of both behavioural and attitudinal loyalty were categorised as low loyalty (Backman & Crompton, 1991b).

The two dimensional perspective has merit, but more recently another view of loyalty has been developed to incorporate a multi-dimensional model of loyalty as proposed by Oliver (1997, 1999).

2.12.4 Conative loyalty

Oliver's (1999) conceptual model goes beyond the attitudinal and behavioural components of loyalty by introducing an additional loyalty concept called *conative loyalty* that was later tested by Lee et al. (2007).

Oliver (1999) argues for a multi-dimensional approach to assessing loyalty. The current thesis explores conative loyalty alongside other forms reported by Oliver (1999), with attitudinal loyalty divided into two components - cognitive loyalty and affective loyalty (Table 3). The basic idea of the conceptual model suggests that customers become loyal in a cognitive as well as in an affective sense, and then finally in a behavioural (action) sense, hence proposing a linear sequential structure of loyalty. This has been supported by Harris and Goode, (2004) and Han, Kwortnik, and Wang (2008) indicating four causal phases of loyalty exist. In contrast, Agustin and Singh (2005) claim that direct links of both cognitive and affective loyalty found predicting intention and behavioural loyalty suggest loyalty in some contexts may be more complex than a linear sequential loyalty chain.

Table 3.3: Loyalty phases with corresponding vulnerabilities.

Stage	Sustainers	Vulnerabilities
Cognitive	Cost Benefits Quality	Cost Benefits Quality
Affective	Satisfaction Involvement Liking	Dissatisfaction Counter persuasion Trial
Conative	Commitment	Counter persuasion Trial
Action	Inertia Sunk costs	Counter persuasion Trial

(Source: Adapted from Oliver, 1999, p. 36).

On examination of the causal stages/phases of loyalty, cognitive loyalty is viewed as the preference for one brand/service provider over alternative brands/service providers, for example preferring buying Mercedes Benz over BMW. However, Oliver (1997) argues that this stage is more habitual by nature. Therefore, this indicates that cognitive loyalty may not be a stable type of loyalty, as it is vulnerable to counter-persuasion techniques by marketers. For example, if BMW developed a marketing campaign discounting all their sale prices for some of their top models, this may tempt drivers of Mercedes Benz in the cognitive loyalty stage to switch over to BMW.

In contrast, affective loyalty is akin to the cognitive stage, but imbedded within this stage is a deeper sense of loyalty which is established through affect (i.e., liking the way a Mercedes Benz drives) making this stage less vulnerable to counter-persuasion techniques by marketers. Within the affective stage pleasure and satisfaction reflect affect, enabling a deeper sense of loyalty to be developed, for example the pleasurable and satisfying experience of driving a luxury car like Mercedes Benz. The next stage is conative loyalty, which is more reflective of behavioural intention and is influenced via both cognitive and affective stages. It is a deeply held loyalty reflecting commitment, otherwise known as repatronage intentions (for example trading in your

existing Mercedes Benz C-class for the Mercedes Benz all new E-class). Conative loyalty has its origins in the Theory of Planned Behaviour (Ajzen, 1985) with the desire to make repeat purchases not always resulting in actual repatronage (Sheppard, Hartwick, & Warshaw, 1988). The last stage of loyalty is considered to reflect action, as intentions may be converted into actual actions or readiness to act (repatronage of Mercedes Benz). As shown in this conceptual model, Oliver (1999) differentiates between loyalty based on habitual behaviour seen through the cognitive stage that dominates choice behaviour to later stages of the model whereby true loyalty may be expressed as reflective of affect and preference.

Testing Oliver's (1997, 1999) model, Lee et al. (2007) found that in destination loyalty three stages of loyalty exist. These three stages consist of attitudinal, conative and behavioural loyalty. Lee et al. (2007) further found that attitudinal loyalty was directly and positively related to conative loyalty. Conative loyalty was directly and positively related to behavioural loyalty. This finding supports Oliver's (1999) conceptualisation of loyalty. The current thesis will ascertain the direction of the relationship to find out if any differences are apparent in a health and fitness context. In contrast to Oliver's (1999) conceptualisation there is an argument that attitudinal loyalty may have a strong relationship with behavioural loyalty based on Day (1969) and Backman and Crompton (1991a, 1991b).

Oliver's (1999) conceptualisation has links with the Theory of Planned Behaviour (Ajzen, 1985) suggesting attitudes lead to intentions which lead to behaviour. It extends this idea, focusing specifically on on-going behaviours as reflective of loyalty rather than future intentions per se. The idea is the same in principle, attitudes predict intentions and intentions predicts behaviour. Alexandris and Stodolska (2004) indicated intentions do not always lead to behaviour. It is important to note Oliver's (1997) conceptual model claims involvement and satisfaction may facilitate intentions leading to behaviour, as satisfaction and involvement are considered sustainers of the behaviour that are able to counter vulnerabilities enabling an individual to establish a stronger sense of loyalty. However, given that past researchers have argued that commitment is conceptualised as a recreationist's

attitude to a specific provider or their service offering, they have tended to view commitment as the attitudinal component of loyalty (Backman & Crompton 1991; Iwasaki & Havitz 1998; Pritchard et al., 1999). Considering this view more closely some researchers have claimed that affect, cognitive and conative measures represent commitment which is argued to explain the attitudinal component of loyalty (Kyle & Mowen 2005; Kyle Mowen, Absher & Havitz, 2006). This contrasts Oliver's (1997) conceptualisation and the Lee et al. (2007) findings. For example Lee et al. (2007) showed that there were clear stages of loyalty represented by attitudinal loyalty, conative loyalty and behavioural loyalty. This view however contrasts the perspective that conative loyalty explains the attitudinal component of loyalty as proposed by Kyle et al. (2006) and others.

These researchers highlight the discrepancy between how attitudinal loyalty should be conceptualised, which is evident when comparing Kyle et al. (2006) and Lee et al. (2007) in terms of their conceptualisation and subsequent interpretation of attitudinal loyalty. In order to justify their position, research by Kyle and Mowen (2005) and Kyle et al. (2006) propose conative as a form of commitment is representative of the attitudinal component of loyalty. They further propose that studies like Park (1996) and Pritchard et al. (1999) can be viewed as reflective of conative commitment (amongst other forms of commitment that make up attitudinal loyalty).

Given that the aforementioned studies (Park 1996; Pritchard et al., 1999) failed to mention conative commitment further highlights the confusion of this measure in the literature over if and how the conative measure relates to attitudinal loyalty. Again, this is why the perspective on loyalty proposed by Lee et al. (2007) has most appeal as it clearly shows how conative loyalty is represented and where it sits in comparison to other forms of loyalty (attitudinal, conative and behavioural loyalty). The current thesis favours the argument presented by Lee et al.(2007), that loyalty is composed of attitudinal, conative and behavioural loyalty stages, as it provides the most clear and concise representation. It is important to note that the current thesis employs the term stages but this differs to that of Han et al. (2008), Lee et al. (2007), or Oliver (1999). As the view considered in this thesis was stages of loyalty exist simultaneously suggesting that customers can be loyal in different ways, an idea previously presented by Rundle-Thiele (2005).

2.13 Summary

Lee et al. (2007) assessed service quality, satisfaction, and involvement in their study on destination loyalty in a forest setting. Lee et al. (2007) provides a justification for inclusion of Oliver's (1997) multi-dimensional measure of loyalty, since Lee et al. (2007) operationalises the constructs as attitudinal, conative and behavioural loyalty (Lee et al., 2007; Oliver, 1999). For example, the study by Lee et al. (2007) assessed service quality, satisfaction and involvement by collapsing cognitive and affective loyalty into attitudinal loyalty as previous researchers had done in the past (Backman & Crompton, 1991a, 1991b).

The ability to test whether or not certain factors influence specific stages of loyalty over alternative stages has rarely been considered in research to date. One limitation with Lee et al. (2007) is the use of a summative measure for involvement, prohibiting analysis of individual factors to loyalty. Alternatively, studies that have looked at the individual involvement factors and their relationship to loyalty are limited because they have not assessed the full range of loyalty measures (Alexandris et al., 2008; Murray, 2000). Therefore, the current study considered a more comprehensive examination of the full range of loyalty stages (attitudinal, conative and behavioural measures) together to determine how these stages of loyalty are influenced by involvement factors.

An apparent gap in the literature is how service quality, satisfaction, involvement, and constraints interact in a consumer service setting. The literature does not offer an examination of the issues of continued exercise participation from a multi-disciplinary perspective. The current practice focuses on issues of exercise adherence outside of the context of a customer setting, or alternatively concentrating on behaviour as a customer and the associated issues of how service quality and satisfaction lead to loyalty. Similarly, if we are to consider how the literature is moving to involvement over constraint negotiation (as seen in Alexandris et al., 2008 and Kyle and Mowen 1993) as a mechanism by which to explain how constraints are overcome, this would suggest involvement could alleviate or parry the myriad of negative constraints or limitations in a particular service.

2.14 Research questions and hypotheses

A visual display of the hypothesised relationships is shown in Figure 2.1, followed by the research questions and their subsequent hypotheses. It is proposed that satisfaction and involvement are significant mediators in the relationship between service quality and loyalty. In addition, involvement is also proposed as a significant mediator in the relationship between constraints and loyalty. Therefore, there are six guiding themes in terms of the research problem:

- service quality and its link to loyalty in health and fitness centres.
- the role of satisfaction in predicting loyalty.
- the mediating role of satisfaction between service quality and loyalty.
- the role that constraints to participation play in affecting loyalty.
- the mediating role of involvement between constraints and loyalty.
- the role that involvement plays in mediating the relationship between service quality and loyalty.

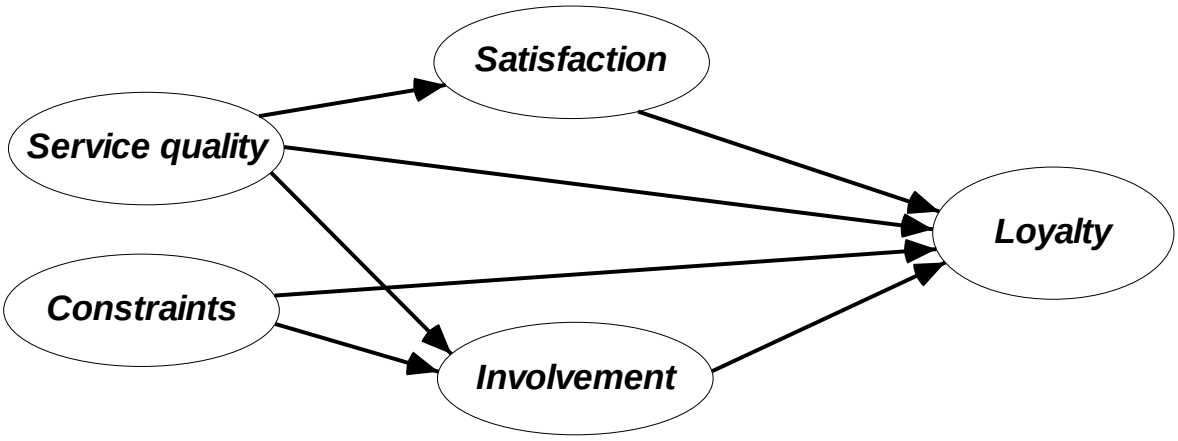


Figure 2.1: Hypothesised relationships among the variables within the thesis.

RQ1: What is the full nature of the relationship between service quality and loyalty in health and fitness centres?

Alexandris et al. (2006) assessed the effect of place attachment on customer loyalty finding place attachment predicted loyalty (intention to continue skiing). Firstly, is place attachment distinct from attitudinal loyalty? Alexandris et al. (2006) and Theodorakis, Tsigilis and Alexandris (2009) tends to suggest it is distinct from loyalty. However, there is strong supporting evidence suggesting place attachment is conceptually similar to attitudinal loyalty (Kyle et al., 2004; Lee et al., 2007). For example, several studies claim constructs like place attachment (Kyle et al., 2004; Lee et al., 2007), psychological commitment (Kyle et al., 2004) and resistance to change (Kyle et al., 2004) are all conceptually similar to attitudinal loyalty. This conceptual confusion and overlap surrounding attitudinal loyalty (Heere & Dickson, 2008) allows the current thesis to interpret Alexandris et al. (2006) study using the perspective of Kyle et al. (2004) on place attachment and place dependence. For example, place attachment in the study by Alexandris et al. (2006) can be seen as indicative of attitudinal loyalty as it reflects the emotional attachment to the health or fitness centre revealed through items such as: 'The...skiing resort means a lot to me' consistent to attitudinal loyalty reflective of the affective component of attitudes. The position place attachment explains the attitudinal component of loyalty was highlighted by studies such as Kyle et al. (2003) and Kyle et al. (2006). If we consider this argument in more detail, the study by Alexandris et al. (2006) can be used to highlight that physical environment quality, outcome quality and interaction quality[54] predicted place attachment which is considered by some researchers to represent attitudinal loyalty.

Likewise, place dependence in Alexandris et al. (2006) can be argued to be indicative of the conative loyalty stage, whereby items employed in Alexandris et al. (2006) reflect a dependence on the centre which relates to the behaviours performed there, therefore a pledging or binding attachment toward the centre. This position of

[54] In Alexandris et al. (2006), they found interaction quality was the most powerful predictor of place attachment followed by physical environment and outcome quality.

viewing place dependence as explaining the conative component is advocated by Kyle and Mowen (2003) and Kyle et al. (2006). Once again the findings by Alexandris et al. (2006) can be used to indicate that physical environment quality and interaction quality factors offer significant contributions to an explanation of place dependence, or, in other words, conative loyalty.

Given the fact that there is strong evidence linking service quality attributes to what Oliver (1999) considers the initial stages of loyalty, it can be predicted that all three components of service quality will influence both attitudinal and conative loyalty. This leads to the first hypothesis which states:

H1A: *All three service quality factors (physical environment quality, outcome quality and staff interaction quality) will positively predict both attitudinal and conative loyalty.*

Although there is limited research regarding the link between outcome quality and loyalty, Alexandris et al. (2004a) found that outcome quality made the most statistically unique contribution to psychological commitment[55] in a health and fitness context. This type of argument is central to that of experiential consumption (Holbrook & Hirschman, 1982) whereby customers are gaining a unique and memorable experience, specific to the health and fitness setting, this type of unique experience can be reflective of attaining physical, social and psychological outcomes (Dawson et al., 2001). Given that outcome quality requires intense regular and perhaps longer workouts to gain desired outcomes or personal benefits, it is proposed that outcome quality will be the most powerful predictor of customer loyalty. This leads to the next hypothesis which states:

H1B: *Outcome quality will predict all three measures of behavioural loyalty (intensity, frequency and duration).*

Likewise, it has been proposed that experiential consumption can be triggered by the physical environment of the service whereby the physical environment elicits an experiential affective feeling of pleasure and arousal (Wirtz & Bateson, 1999).

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[55] This is under the assumption that psychological commitment reflects the attitudinal component of loyalty as proposed by Alexandris et al. (2004a).

Consequently, the physical features of a health and fitness centre may also trigger affective feelings as proposed by studies on ski-resort customers (Tsiotsou, 2006).

Tsiotsou (2006) argues experiences are linked to a hedonic component triggered by aesthetic aspects of a product/service, therefore supporting Wirtz and Bateson, (1999). In other words the physical environment can elicit pleasure and arousal. Consequently, if the physical environment of the centre is aesthetically pleasing, with superior facilities, it may be assumed that it's likely that customers will visit the centre more often, and stay at the centre when they do visit for longer periods of time. These assumptions lead to the following hypothesis:

H1C: *Physical environment quality will predict both frequency and duration of visitation.*

RQ2: What is the relationship between service quality and satisfaction?

In general, research has shown high levels of service quality have been linked with satisfaction. For example, studies by Alexandris et al. (2004a), Howat et al. (2008) and Murray (2000) report that superior service quality was directly and positively related to satisfaction in sports, health and fitness settings. This leads to the next hypothesis:

H2: *All three service quality factors (physical environment, outcome quality and staff interaction quality) will positively predict satisfaction.*

RQ3: What is the relationship between satisfaction and loyalty?

Lee et al. (2007) found that satisfaction significantly predicted both attitudinal loyalty and conative loyalty, but showed no significant predictive effect on measures of behavioural loyalty. Other studies have also shown that satisfaction is a poor predictor of behavioural loyalty measures (Howat et al., 2008; Murray 2000; Reicheld, 1996). This lack of predictive effect may be one reason why research excludes behavioural loyalty measures when assessing satisfaction and loyalty (Howat et al., 2008; Kouthouris & Alexandris, 2005). This leads to the next hypothesis which states:

H3: *Satisfaction will positively predict both attitudinal and conative loyalty, but not behavioural loyalty.*

RQ4: Does satisfaction play a mediating role in the relationship between service quality and loyalty?

The current research proposed that desired levels of service quality would influence satisfaction, which in turn, would affect loyalty. This finding has been supported by a number of studies indicating a service quality, satisfaction, loyalty sequence (Alexandris et al., 2004a; Murray, 2000). Fornell (2007) has argued that the indirect link between service quality and loyalty via satisfaction is so powerful, that it makes the direct link between service quality and loyalty zero, meaning no direct link exists at all. This suggests that satisfaction can have a significant mediating effect on the relationship between service quality and loyalty. Accordingly, this study proposes that:

H4: *Satisfaction will mediate the relationships between all three service quality factors and both attitudinal and conative loyalty, but not behavioural loyalty.*

RQ5: What is the relationship between constraints people face to their participation in exercise at health and fitness centres and their loyalty to a centre?

The literature indicates intrapersonal constraints are the most difficult to negotiate (Alexandris & Carroll, 1997a). This type of constraint may therefore be the most likely to lead to defection as it has been suggested that intrapersonal constraints can potentially block participation in physical activity (Carroll & Alexandris, 1997). In contrast, all other constraints can still be managed as they are thought to exert less control over the person's subsequent behaviour (Jackson & Scott, 1999). Therefore, although structural constraints may lead to modified participation (Kay & Jackson, 1991), people experiencing these types of constraint are still able to participate in physical activity.

Moreover, intrapersonal constraints are more likely to influence the cognitive and affective side of loyalty (more reflective of attitudinal loyalty and to some extent conative loyalty) or what Oliver (1999) described as the most susceptible stages to counter persuasion. In this instance, intrapersonal constraints, such as individual or

psychological constraints (Alexandris et al., 1997a), may lead to customers missing training sessions at a health and fitness centre. For example, 'I will miss the group fitness class tonight because I feel particularly depressed and anxious today'. Similarly, social physique anxiety may be expressed as 'I am not attending class today as I think everyone will look at my big thighs'. The consequence of such intrapersonal constraints is that the person continually misses classes, and reinforcement of such inaction can ultimately lead to defection.

In contrast, structural constraints are not likely to lead to missing training sessions or defection as they are more readily overcome (Jackson & Scott, 1999). However, they may influence the individual by not allowing them to meet a desired level of intensity. For example, an individual has to submit a major assignment, but before submitting the assignment they decide to attend a group fitness class the night before the assignment deadline. During participation in the group fitness class the individual replays over and over in their mind the final details of their assignment and whether they will be able to submit the assignment on time. This distracts them from the group fitness class causing them to make mistakes in the choreographed movements. This may be linked to an individual's ability to reach an optimal level of arousal (Ellis, 1973) or peak experience (Vallarand, 2001) given that they are distracted by obligations such as a major assignment that needs to be submitted. Therefore, time constraints and other obligations may potentially inhibit a hedonic state being triggered that may have resulted from participation in the class if this type of constraint had not existed. The accumulated research findings infer specific links which lead to the following two hypotheses:

H5A: *Individual/psychological constraint and SPA will negatively predict all measures of loyalty (attitudinal, conative and behavioural).*

H5B: *Structural constraints, (specifically those related to time constraints or other obligations) will negatively predict the level of intensity of participation.*

The majority of the literature indicates that *constraints* reduce how often a person takes part in a leisure activity (Carroll & Alexandris, 1997; Hawkins, Peng, Hsieh, & Eklund, 1999). This is consistent with more recent findings by Lee and Scott (2009) who found that leisure constraints have a negative effect upon frequency of leisure activities. However, initial findings by Alexandris and Carroll (1997a) specifically show that structural constraints such as affordability, transportation and lack of opportunity to exercise near home, were just some of the access/financial constraints that negatively influence participation.

This finding was later supported by Humbert et al. (2006), who indicate that certain structural constraints, like cost and access to facilities, negatively influence participation. For example, in terms of access, an individual may not be able to attend Saturday afternoon football training with their friends if they do not live near the training grounds; they may only be able to attend every other week when their friend drives them to the football centre. In contrast, in terms of cost, in a study on Greek ski resorts, it has been proposed that costs involved with visiting ski resorts may have prevented customers from visiting the ski resorts more often (Tsiotsou, 2006).

Alternatively, structural constraints, such as a tight budget may prevent an individual participating in a group fitness class more often, perhaps having to place their membership on hold or opting to buy an off peak membership that is cheaper in price. An off peak membership may restrict them to specific times of the day, but still allow them to participate. Given the fact that structural constraints have been commonly reported as influencing participation, it can be inferred that structural constraints may reduce the overall number of visits a person makes to the centre. This leads to the next hypothesis:

H5C: *Structural constraints (specifically relating to access or financial constraints) will negatively predict frequency of visitation.*

Similarly, lack of a suitable training partner was shown to be a negative influence upon how often a customer participates in a chosen activity (Alexandris & Carroll, 1997a). This leads to the next hypothesis:

H5D: *Lack of partners will negatively predict how often customers visit a centre.*

RQ6: What is the relationship between constraints and involvement?

Crawford et al. (1991) argued that in the hierarchy of importance model, which represents a sequential hierarchical decision-making process, intrapersonal constraints are the most powerful and structural constraints are the most distal (least powerful).

Thus, the most powerful influence on constraints tends to be intrapersonal constraints considered the hardest form of constraint to overcome (Alexandris et al., 1997a). Research indicates this is likely to impact upon the involvement factor attraction. For example, James (2000) suggests that one's pleasure within an activity is negatively influenced by perceiving that others are evaluating one's body negatively (Frederick & Shaw, 1995; Crawford & Eklund, 1994) which is often referred to as the intrapersonal constraint of SPA. Similarly, within the broader leisure constraints theory with its link to the involvement factor attraction (consists of both importance and pleasure), it was shown that the individual/psychological constraint negatively influenced the level of attraction an individual experienced within leisure activities, in this instance skiing (Alexandris et al., 2008). Drawing from the accumulated research studies, the next hypothesis states:

H6A: *Higher levels of both individual/psychological constraints and SPA will be related to lower levels of attraction.*

Alexandris et al. (2008) also found that intrapersonal constraints such as individual/psychological constraints were the strongest negative predictor of the involvement factor centrality. Similarly, Elliot (1996) argues avoidance behaviour may occur due to certain situational specific contexts. If we link this to intrapersonal constraints, avoidance behaviour may negatively influence the amount of contact points with other customers, whereby an individual is less likely to share information, or have conversations about group fitness classes, reducing the significance of group fitness classes in one's everyday life. SPA and individual/psychological constraints are therefore most likely to negatively influence how an individual acts (avoidance behaviour) in turn negatively influencing centrality. This leads to the next hypothesis:

H6B: *Higher levels of individual/psychological constraints and SPA will negatively predict centrality.*

RQ7: What is the relationship between involvement and loyalty?

Repeat patronage appears to be related to loyalty (Cunningham, 1956). Moreover, involvement as an overall measure has been shown to be a better predictor of attitudinal loyalty than behavioural loyalty (Lee et al., 2007). In contrast, conative loyalty is considered to be linked to positive affect toward the activity or brand (Oliver, 1999). Although relationships between involvement and conative loyalty have been found (Lee et al., 2007), the relationship between these two variables was assessed by employing an overall measure of involvement. However, different factors of involvement are likely to influence different stages of loyalty.

For example, Alexandris et al. (2008) specifically tested attitudinal loyalty and found that factors such as centrality and attraction have been linked to attitudinal loyalty, whereas other factors like sign value were not linked to attitudinal loyalty. Similarly, Oliver (1996) proposes that conative loyalty takes upon motivational properties and can be considered to be reflective of involvement.

Therefore, we can infer that factors such as sign value that appear to be poor predictors of attitudinal loyalty in skiing (Alexandris et al., 2008) may instead be salient predictors of conative loyalty, suggesting that specific factors may be operating to predict specific types/stages of loyalty. Sign value in health and fitness centres is central to why most people choose to exercise in this context (Havitz et al., 1994), combined with consideration of risk on how the individual can potentially be perceived in a health and fitness setting[56]. This makes both sign value and risk important in prediction of factors that impact both perceptions of attitudinal and conative loyalty. This leads to the following hypotheses:

H7A: *Sign value will positively predict both attitudinal and conative loyalty.*

H7B: *Risk will negatively predict both attitudinal and conative loyalty.*

[56] For example, a male group fitness patron may choose to wear a size small t-shirt (when in-fact they are a large) in order to make their muscles look bigger, but may wonder whether or not other people know they are trying to make their muscles look bigger, because of this they may start to feel embarrassed.

The concept of involvement can be a motivating force as described by Havitz and Dimanche (1997), Scanlan et al. (1993a) who have shown through the Sport Commitment Model, enjoyment was the most important factor of participation in sports. If enjoyment is one of the salient reasons to why people participate (Scanlan et al., 1993a), and if the importance and pleasure in the activity motivates a person to participate (Havitz & Dimanche, 1997), then it stands to reason that an activity that is highly important and pleasurable for an individual is also likely to be a central part of who they are as a person, and in-turn would be expressed as preference or attitudinal loyalty.

H7C: *Centrality will positively predict attitudinal loyalty.*

How important or central an activity is for an individual will likely be expressed cognitively through thoughts about who they are and what they are as an individual (sense of self). Oliver (1999) proposes that involvement factors like centrality can be viewed as sustainers for cognitive stages of loyalty. This is supported by Pelletier et al. (1995) who assessed motivation in sports and proposed that an individual intrinsically motivated may desire more information about an activity. It is at this point where attraction (proposed in this thesis to have intrinsic motivational properties) may become more important to the actual behaviour. For example, a customer of a health and fitness centre who has researched difficult training techniques on the internet and spoken to trainers might experience pleasure when they are challenged to assimilate and accommodate that information for themselves. Therefore, attraction is proposed to be important at the behavioural loyalty stage since importance and pleasure comes from implementing what the individual has discovered and puts into practice, accomplishing something new (Pelletier, 1995).

Lee and Scott's (2009) study substituting involvement for motivation was based on the conceptual similarities between the two concepts. The thesis extends this idea by proposing attraction might be more important at the behavioural stage of loyalty, since attraction can act as a substitute for intrinsic motivation, linking intrinsic motivation to exercise adherence (Ryan et al., 1997). Given the findings indicating that optimal arousal or a peak experience is induced when a person feels challenged

and they have the necessary skills (Csikszentmihalyi, 1975), it is predicted that attraction will motivate the individual to make more visits and have more intense workouts at the centre. This leads to the following hypothesis:

H7D: *Attraction will predict intensity of participation and frequency of visitation.*

RQ8: Is involvement a mediator between constraints and loyalty?

Constraints have a negative influence upon participation. However, as per hypothesis H5A, the intervening variable of involvement may offset certain constraints that inhibit the formation of loyalty. In general, when the activity enables an individual to express themselves (sign value), it may become a central reason for participation (centrality), supporting Murray (2000) and Kyle and Mowen, (2003). Linking their research to the current study, there is a suggestion that both sign value and centrality can actually offset the negative impact of intrapersonal constraints. Therefore, drawing from the research in this area, the next hypothesis states:

H8A: *Sign value and centrality will mediate the relationship between intrapersonal factors and attitudinal loyalty.*

Linking the literature outlined in Chapter 2, Alexandris et al. (1997a) indicates that because of the sequential process outlined by Crawford et al. (1991), previous research has failed to account for the most important and most powerful constraint in leisure, that of intrapersonal constraints. Furthermore, more recent research by Jackson (2000) argues that age needs to be considered as a socio-demographic variable to examine in the field of constraints. The socio-demographic variable of age is becoming a major research focus in constraint literature with Son et al. (2008) suggesting both gender and age should be of prime importance in constraints research.

Considering age and gender in constraints theory, it should be noted that evidence for their effect is mixed. Alexandris et al. (2003) note that within the context of exercise, gender differences were not apparent in older Greek participants. Age and gender become of note when considering the intrapersonal constraint SPA. The dominant and most desired physique in the fitness culture is said to be the hyper-fit physique

with findings indicating men and women experience anxiety when viewing another person exhibiting a hyper-fit physique (Garvin & Damson, 2008). This is likely to be a result of the difficulty of attaining the hyper-fit physique due to the amount of muscle sculpting that is required which, if not attained, may increase body image concerns.

These types of concern and anxiety would be heightened in group fitness classes given the nature of the social audience and subsequent social comparison. However, there is compelling evidence by researchers in Greece that intrapersonal constraints have the most inhibiting impact upon women and the elderly in sport participation (Carroll & Alexandris, 1997). Therefore, age and gender may also be of interest in terms of intrapersonal constraints in health and fitness centres. Consequently, it is important to assess the following corollaries of H8:

Corollary H8A1: *Older participants will experience higher levels of intrapersonal constraints than middle aged and younger participants.*

Corollary H8A2: *Women will experience higher levels of intrapersonal constraints than men.*

Corollary H8A3: *There will be a significant interaction effect between age and gender (i.e. older females will experience significantly higher levels of intrapersonal constraints than other participants).*

If we are to consider the role of structural constraints, attraction may offset the fact that your membership has gone up in fees but your pay at work has stayed the same. Therefore, attraction may offset structural constraints leading an individual who is highly involved to attend more regularly. A sense of accomplishment may be associated with challenge (Elkins et al., 2007; Pelletier et al., 1995), making an individual try harder or perhaps work-out at an intense level because they are fully aware that constraints exist. In research on motivation noted earlier this was linked to intrinsic motivation towards accomplishments (Pelletier, 1995) and may relate to the attraction factor in involvement. For example, family pressure and obligations at home may be offset by the challenge in mastering difficult choreographed movements. Achieving an optimal experience (Ellis, 1973) may help the participant forget social pressures. Therefore, while constraints have a negative influence upon

loyalty, attraction may offset certain constraints that inhibit loyalty. Therefore, for some individuals, a need for a peak experience is likely to be associated with exercising at intense levels and making regular visits (Dawson et al., 2001). This leads us to the next hypothesis:

H8B: *Attraction will mediate the relationships between structural constraints and intensity of participation and frequency of visitation.*

RQ9: Is involvement a universal mediator: Will involvement factors influence service quality?

Selin et al. (1988) argue that importance and pleasure in involvement, known also as attraction (McIntrye, 1989), as a single concept is similar to hedonic leisure. Importance and pleasure in involvement (attraction) in a given behaviour, therefore, is akin to a number of notable concepts, such as optimal level of arousal by Ellis, (1973). An optimal level of arousal is likely to result in psychological, social and physical outcomes (Dawson et al., 2001), as these are the notable types of outcome that are likely to be expected within a health and fitness context, leading to the following hypothesis:

H9A: *Outcome quality will positively predict attraction, such that higher outcome quality will lead to higher attraction.*

Howat et al. (2008) labelled outcome quality as benefits attained, likewise involvement factors are also conceptually similar to benefits attained. The current study assessed the relationship between outcome quality and involvement factors, specifically it considered the role of outcome quality in relation to the time it takes to attain outcomes, and as a result, the activity becomes central to an individual's life (increase energy or fitness levels). Therefore, the following hypothesis states:

H9B: *Outcome quality will predict centrality.*

Sign value and centrality has been linked to one's sense-of-self (Havitz et al., 1994; Watkins, 1987). For example, if an individual wishes to express themselves using an activity to identify themselves (Havitz et al., 1994), this will obviously be a central activity and part of their sense of self (Watkins, 1987). The next hypothesis states:

H9C: *Centrality and sign value will significantly mediate the relationships between all three service quality factors and attitudinal loyalty.*

In particular, sign value is likely to mediate the relationship for both physical environment, staff interaction quality and conative loyalty, and research shows that belonging to a social group can satisfy the need for affiliation (Holt, 1995). This may allow individuals to provide symbols to the rest of the world to illustrate who and what they are, and identifying themselves with their reference group (group fitness customers). Therefore, the next hypotheses state:

H9D: *Sign value will significantly mediate the relationship between physical environment quality and conative loyalty.*

H9E: *Sign value will significantly mediate the relationship between staff interaction quality and conative loyalty.*

An optimal experience (Ellis, 1973) is similar to what Csikszentmihalyi's (1975) describes as flow, or Maslow's (1968) self-actualisation, which influences both intensity and how frequently customers attend a health and fitness centre. If the match between challenge and skill produces an optimal experience (Csikszentmihalyi, 1975), this would suggest regular intense work-outs which might be associated with challenge and in turn a sense of accomplishment (Elkins et al., 2007). It is therefore expected that attraction will stimulate the need to attain accomplishment.

The most obvious resultant accomplishment in a health and fitness centre could be the attainment of social, psychological and physical outcomes (Dawson et al., 2001), which may lead to an individual to exercising more regularly and intensely in order to attain these types of benefit. To attain these types of benefits through participation customers need to attend regularly and frequently, but not necessarily for longer periods of time (duration of visitation). Since frequency of visitation and intensity of participation can provide a way to overcome time constraints, briefer attendance is likely to provide the same results as working out for longer periods. This leads to the next hypothesis:

H9F: *Attraction will significantly mediate the relationships between outcome quality, intensity of participation and frequency of visitation.*

RQ 10: ***Is there a causal loyalty chain such that attitudinal loyalty leads to conative loyalty which in turn leads to behavioural loyalty?***

Lee et al. (2007) found that in destination loyalty three stages of loyalty exist. These three stages consist of attitudinal, conative and behavioural loyalty. Lee et al. (2007) further found that attitudinal loyalty was directly and positively related to conative loyalty. Conative loyalty was directly and positively related to behavioural loyalty. This finding further supports Oliver's (1999) stages of loyalty. This leads to the final hypothesis of the study.

H10: *Attitudinal loyalty will lead to conative loyalty, which in turn will lead to behavioural loyalty.*

CHAPTER THREE

Methodology

3.1 Introduction

Chapter 2 consisted of an in-depth analysis of previous literature dealing with customer loyalty and adherence to exercise in health and fitness centres. Dominating the research were service quality and constraints as explanations for consumer loyalty or lack thereof. However, neither was able to completely account for the full scope of understanding of customer adherence to exercise or loyalty in health and fitness centres. Chapter 2 suggested that an understanding of both customer service issues, as well as a broader acknowledgement of the role of other factors, such as the involvement of the customer, and the constraints they experience outside of the service context, were critical to predicting the on-going retention of customers in health and fitness centres. The chapter finished with an outline of the key research questions of the study, focussing on assessing the role of service quality and satisfaction, as well as constraints in predicting loyalty (attitudinal, conative and behavioural). It was also proposed that the involvement of the customer played a key role in mediating the relationships among constraints, service quality, satisfaction and loyalty.

Chapter 3 outlines the methodology chosen to address the research questions and hypotheses developed in Chapter 2. Chapter 3 is arranged into four sections. The first section outlines the process employed in the data collection phase of the research. The second section outlines the CSSIL instrument and the items employed to measure the constructs. The third section describes the procedure employed in the study. The fourth section discusses the statistical techniques employed to address the research questions proposed in Chapter 2.

3.2 Participants

3.2.1 Sample size: An overview

An increased sample size always produces greater power for analysis, although, as noted by Hair, Anderson, Tatham and Black (1995), too large a sample may mean that a statistical test is overly sensitive to smaller and smaller effects. Too small a sample size, on the other hand, may be insensitive to effects which could be significant with an adequate sample size. Researchers need to be aware of the potential for these effects, and ensure sample size is appropriate to their investigations. For mediated hierarchical regression, one of the main forms of statistical analysis for the research questions in the current study, a large enough sample is required so that there is a chance (80%) of detecting a relationship (Hair et al., 1995; Tabachnick & Fidell, 2007; Wampold & Freund, 1987).

A general truism in most quantitative research is that, generally, the more complex[57] a study is, the more participants are needed. However, what number of participants creates an optimum sample size is determined by a range of factors, including optimal size of the sample, intended statistical approaches, the size of the population the from which the sample is drawn, as well as the availability of the sample, and the logistics of obtaining the sample.

A sample size chosen for a study is always a compromise between the need for an ideal sample size and the costs and time associated with the sampling and collection process (Neuman, 1997). Therefore, the goal of any effective sampling approach is to obtain the most relevant sample that is most reflective of the population (i.e. has the greatest power and accuracy), at the least cost and time obligation.

One method of determining an appropriate sample is to select an accepted margin of error for the sample. The margin of error is the percentage by which responses obtained will differ between the initial sample and the sample repeated. For example, if the margin of error were 3%, then 95 times out of 100 when a survey is conducted, the responses will vary +/- 3% from the answers recorded in the initial survey (Neuman, 1997).

[57] As determined by the amount of variables a study includes.

Given this and working on the formula of 1√N, where the margin of error is 1 divided by the square root of the number in the sample, then a sample size of 1000 is required. If this margin of error is desired to be less (to improve accuracy) then a sample size of 1600 will provide close to a 2% margin of error. If sample numbers are a concern, then 500 will still give a margin of error of 4.5%, which is still more than acceptable. This formula is independent of the population size.

To determine the sample size (SS) required in a specific population, such as in the context of a health and fitness centre participants, 1√N may not be refined enough. In this case we need to employ a more comprehensive formula:

$$\mathbf{SS = Z^2/c^2 * (p) * (p)}$$

Where:

Z = Z value (e.g. 1.96 for 95% confidence level)
p = percentage picking a choice, expressed as decimal
(0.5 used for sample size needed), and
c = confidence interval, or margin of error, expressed as decimal
(e.g. 0.04 = ±4)

In terms of minimum sample size, the ERASS[58] survey from 2008 suggests that 300,000 people in South Australia participate in health and fitness activities, with 70% of those in the Adelaide region (a population of approximately 210,000). Given the selection of fitness centres belonging to the same franchise as the sites for data collection, there was a high expectation of increased error variance. A margin of error of approximately 5-7.5% could be anticipated. Based on this level of accuracy, a sample size of 250-350 respondents would be acceptable. The final sample number for this study was 294 participants, suggesting it was an appropriate size for the study given the above criteria.

[58] 16.1% of people in South Australia aged 15 years and over participated at least once in the last 12 months in fitness and leisure activities which is expressed as a percentage of the population in the same group. Moreover, 11.2% males and 20.8% females participated over a 12 month period prior to ERRAS 2008 interview.

3.2.2 Sample selection

Participants in the study (total n= 294) were contacted through six health and fitness centres in Adelaide, South Australia, all belonging to the same franchise. A total of 400 copies of the CSSIL questionnaire (Appendix 1) was distributed, of which 294 were returned and valid for use in this study (a response rate of 74%). This specific chain of health and fitness centre was chosen as the site to collect data due to the number of centres across the Adelaide metropolitan area, from lower through to higher socio-economic areas.

The centres also offered a range of attractive activities, including up to eighty group fitness classes per week offering activities such as Body Pump, Body Step, Body Combat, Body Attack, Body Jam, Body Balance, and RPM[59]. All participants in the classes were current, paid members, consumers, as a capital exchange of a service for money had taken place (Murray 2000).

Studying service quality, satisfaction, constraints and involvement simultaneously presented a number of challenges. The very fact that satisfaction, involvement and constraints were being considered simultaneously suggests that some participants had overcome any prior constraints since they would not be participating if they were dissatisfied or could not overcome constraints. Accordingly, one approach future studies in this area may wish to consider is to focus on centres that have a large ex-member database that could provide a diversity of participants who, for a variety of factors, had ceased participation. This approach, whilst ideal, was not possible with the current sample of centres, as a database of ex-members was not maintained. The nature of the participants was, therefore, a potential limitation of the study, and the situation may need to be addressed in future replications of the current research.

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[59] Body pump uses light weights at high repetition to re-sculpt and re-define ones' physique through toning and rapid calorie burning. Body step uses height-adjustable steps to shape and tone the lower body through an intense cardio workout. Body combat is more martial arts based and is a fun way to reduce fat. Body attack combines aerobics with strength and stability exercises for a highly intense cardio workout. Body jam is a fun and energetic dance class where the individual learns the most up to date hip-hop and Latin dance moves. In Body Balance it takes the pure disciplines of Yoga, Pilates and Tai Chi and combines them to form a new approach, a class totally geared toward core stability but also the feeling of total relaxation after a long day at work. Lastly, RPM is a forty-five minute intense cycling-based work out, which isolates and tones the lower body.

A sample of experienced customers was inevitable, given the fact that experience is a key criteria in sample selection for involvement research (Buchanan, 1985; Murray, 2000; Selin et al., 1988; Stebbins, 1979), and limitations associated with this type of sample are a consistent problem that has hindered many other researchers in this field (e.g., Murray, 2000; Kyle & Mowen, 2003). Without access to an ex-member database, the presence of solely current (and potentially highly involved) customers was considered a justifiable and manageable risk. The study design which was adopted, therefore, was considered the best, if not ideal, form of research design.

Another key consideration was the selection of sites for data collection in terms of the profile or the type of customer that was surveyed. The fitness industry is widely recognised as having 'niche' customer groups who tend to dominate certain activities. Group fitness classes, furthermore, traditionally attract more females than males[60] in Australia (ERASS, 2008), which resulted in notably higher female representation in the study. Although a gender disparity had the potential to bias the responses, classes dominated by females are the norm and a common feature of such studies. (ERASS, 2008).

3.3 Instrumentation

Self administered questionnaires were used for data collection. The CSSIL questionnaire consisted of several sections, with a focus on measures of:

- service quality (physical feature quality, outcome quality and interaction quality)
- involvement (attraction, sign value, centrality and risk)
- constraints (intrapersonal, interpersonal and structural)
- loyalty (attitudinal, conative and behavioural) measures.

The sections of the questionnaire are outlined below.

[60] In Australia, 18.5% of females participate in classes that are organized by fitness, leisure or indoor sports centre. In comparison only 12.5% of males participate in classes. Therefore, 15.6% of Australians aged 15 years and over who participated at least once in the last 12 months in fitness and leisure activities and is expressed as a percentage of the population in the same group.

3.3.1 Socio-demographic information

A range of socio-demographic details was requested from participants. These included age and gender, which were considered to be the most important demographic information because of their observed impact on participation. Alexandris et al. (1997b), for one, have clearly shown that participation in physical activity declines with age. Knowledge of gender assisted in ascertaining whether women experience greater levels of constraints to their participation as per Carroll and Alexandris (1997) and Jackson and Henderson (1995). The demographic profile obtained from the socio-demographic information in the survey was then compared to industry surveys of group fitness class users to see if it was reflective of the general or typical profile of group fitness class participants.

3.3.2 Leisure constraints

In addition to Alexandris and Carroll's (1997) leisure constraints scale, to be discussed below, there are a number of other scales focused on measurement or assessment of constraints people experience in sport and leisure participation. For example, the perceived presence of barriers represented in the Theory of Planned Behaviour, as per Ajzen (1985, 1988), were argued by Ajzen and Driver (1991) to directly parallel perceived behavioural control, which is influenced by the lack of availability of requisite opportunities and resources (time and money). In addition, Scanlan et al. (1993) employed social constraints in the Sport Commitment Model as a constraints measure.

Although both these measures have merit, there are a few issues with using them. Firstly, perceived barriers as per Ajzen and Driver (1991) only relate to structural constraints, limiting assessment of the full range of constraints. The Sport Commitment Model includes social constraints as a motivator on the assumption that people would commit to an activity because they fear negative appraisal from peers if they exit. Social pressures to participate cannot justly be called constraints, however, when they encourage participation.

There have been a number of studies that have measured the constraints individuals experience in their exercise participation. Of note is the work of both Alexandris and Carroll (1997a) and Carroll and Alexandris (1997), who have applied constraints specifically to recreational sport participation in Greece. For the purpose of the current study Alexandris and Carroll's (1997a) scale of constraints was used, given that their constraints scale exhibits good internal consistency ($\alpha = 0.85$). Following research by Alexandris and Carroll (1997a) the current study used a seven point Likert scale ranging from 1- not important to 7- extremely important for assessing constraints in group fitness classes. The only positive worded item in the scale[61] was reverse scored in the current study.

However, studies using the scale of Alexandris et al. (1997a) have shown the factors extracted have varied between several different contexts examined. For example, Alexandris and Carroll (1997a) found six factors were extracted in sport participation in Greece. In contrast other studies using the same scale have found five constraints factors were extracted in skiing activities in Greece (Alexandris et al., 2008). The contexts of sport participation and skiing are different from the current study on group fitness classes in health and fitness centres. Therefore, the closest contextual match is reported on physical activity programs by both Alexandris, Barkoukis, and Tsormpatzoudis (2007) and Alexandris, Barkoukis, and Tsormpatzoudis (2003).

It was both Alexandris et al. (2003), and later Alexandris et al. (2007) who extracted four factors. As the two activities (physical activity programs and group fitness classes) are very similar it is therefore expected that the current study will also extract four factors.

3.3.3 Social Physique Anxiety (SPA)

One of the most appropriate constraints scales to consider when assessing constraints in health and fitness centres is the SPA Scale (Hart et al., 1989). Developed by Hart et al. (1989), the SPA scale has been influential in contributing to an improved understanding of physique-based constraints that result in lack of adherence to

[61] This item was changed from being negatively worded in Alexandris and Carroll's (1997a) original version of the scale in the current study due to an examination of content validity outlined later in section 3.4.

exercise in fitness centres. Such physique based constraints are generally considered as among the most dominant forms of intrapersonal constraints[62] evident in health and fitness centres.

SPA is a 12 item self-report scale developed by Hart et al. (1989) to measure the degree of anxiety that people experience in response to others' evaluations of their physique. The SPA scale consists of 12 statements with which the participant either agreed or disagreed. Examples of statements included: 'I am comfortable with the appearance of my physique/figure; 'I would never wear clothes that make me look to thin or overweight'; 'I wish I wasn't so uptight about my physique / figure' etc). The scale ranged from 1 (not at all true) to 5 (extremely true). The positive worded items (five items) were reverse scored.

Hart et al. (1989) found the SPA scale showed good reliability and internal consistency ($\alpha = 0.90$); reporting SPA was unidimensional. Similar work using the SPA scale followed (e.g., Eklund et al., 1996), with the scale demonstrating generally good reliability, although some issues about whether it was comprised of one or two factors were raised. More researchers are claiming that the SPA scale is composed of two factors. Petrie, Diehl, Rogers and Johnson, (1996) identified the presence of two higher order factors underlying a second order factor when sampling both males and females in their study. SPA research in the context of sports participation and health and fitness centres has also supported the existence of two dimensions (McAuley & Burman 1993, Eklund et al., 1996), as has as study by Isogai et al. (2001), who found that the two factor model of SPA was consistent cross-culturally when applying the SPA 12 item scale to Korean and Japanese samples.

The first dimension Eklund et al. (1996) identified was called *physique presentation comfort* and the second dimension represented *expectations of negative physique evaluation*. Eklund et al. (1996) argued that expectations of negative physique evaluation most closely represented the view of SPA as 'a subtype of social anxiety that occurs as a result of the prospect or presence of interpersonal evaluation involving one's physique' (Hart et al., 1989, p. 96).

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[62] Alexandris and Caroll (1997a) claim intrapersonal constraints are defined by any barriers relating to psychological states and individual cognitions this therefore corresponds with anxiety experienced when exercising in front of other individuals .

On the other hand, Eklund et al. (1996) do acknowledge that the factor *physique presentation comfort* falls outside the role of SPA as defined by Hart et al. (1989). Yet it has also been confirmed by McAuley et al. (1993), as well as Eklund et al. (1996), that physique presentation comfort does represent interesting future possibilities for research; yet the explanation of how physique presentation comfort is related to SPA remains elusive. The evidence is compelling that SPA is best represented as a two dimensional construct. This however, does not change the method or approach of the current study, although the 12 item scale proposed by Hart et al. (1989) may not be uni-dimensional, but rather composed of two factors instead.

There is a strong argument that seven point scales are more appropriate for survey research than five point scales because optimal reliability is obtained (Symonds, 1924). Accordingly, the fewer Likert points on a given scale, the more likely there would be a loss of reliability within that scale. SPA was the only constraint to be measured on a five point scale for the current study (all other scales were seven point Likert). This arrangement allowed the researcher to keep the SPA scale consistent with the original instrument by Hart et al. (1989). A concern with turning the SPA scale into a seven point scale was that it could dramatically change the scales' overall meaning or destroy the comparability of SPA's historical data. As Dawes (2007) has noted, this is a common concern amongst many researchers.

3.3.4 Service quality

Although other measures of service quality specific to sports and leisure contexts are available (for example, QUESC, the CERMCSQ instrument), the measure of service quality proposed by Alexandris et al. (2004b) was deemed the most appropriate for the current study because their measure of service quality consists of three clear dimensions: *outcome quality, physical environment quality*, and *interaction quality*. These dimensions have not only been successfully replicated within a Greek health and fitness context, but also in broader service contexts (Brady et al., 2001).

In contrast, QUESC consists of a large number of factors (11 in total), which may simply be too many (see Chapter 2), so that the instrument poses a range of significant concerns in relation to the reliability and validity because of the low

internal consistency inherent in a scale with a complex factor structure (Alexandris et al., 2004b; MacIntosh, & Doherty, 2007). When QUESC (developed specifically for fitness centres in Korea) was applied to the Greek private health and fitness industry, it was shown to be an inadequate measure of service quality, with Papadimitriou and Karteroliotis (2000), who applied the model to private health and fitness centres, finding the 11 factor structure was not supported.

Similarly, another of the key instruments in the field, the CERMCSQ instrument, has also been questioned in terms of the stability of its factor structure (Lentell, 2000). It must be remembered that the instrument was designed for the measurement of service quality in public sports and leisure centres, rather than private health and fitness centres. Accordingly, questions may be raised regarding the appropriateness of using such a scale when assessing service quality in a context (private health and fitness centres) that is both conceptually and goal distinct from public sports and leisure centres (Afthinos et al., 2005).

In contrast to the QUESC and the CERMCSQ instruments, the service quality scale proposed by Alexandris et al. (2004b) has a relatively short history of use in sport and fitness contexts (Alexandris et al., 2004b). However, a key attraction of Alexandris et al. (2004b) scale is the fact that it was drawn directly from the work of Brady and Cronin (2001) who assessed service quality perceptions in a range of service-oriented industries, such as the fast food, dry-cleaning, photograph development and amusement park sectors. Alexandris et al. (2004b) successfully modified Brady and Cronin's (2001) approach to develop a scale for use in the private health and fitness context in Greece (Alexandris et al., 2004b).

Another key strength of Brady and Cronin's (2001) study, and consequently Alexandris et al. (2004b) instrument, is that it is a single scale approach, measuring performance only, without matched measurements for customers' expectations. This approach, as mentioned in Chapter 2, is consistent with earlier research by Cronin and Taylor (1992), who questioned the appropriateness of the expectation-performance approach, making a persuasive argument that customers' performance ratings already incorporate expectations evaluation. Adding quality should be measured as an attitude

since examples like SERVQUAL confound perceptions and satisfaction (Oliver, 1980). Finally, Chong, Rungie and Murray (1997) found that expectation measures add little to the variance explained by performance-only scales when they assessed service quality in a sports and recreational context.

A performance-only approach was adopted for the current study, consequently the length of the questionnaire could be kept to a minimum, potentially reducing participant refusal rates and fatigue. All service quality measures were assessed using a seven point Likert scale ranging from 1- strongly disagree to 7-strongly agree. As the scale included no negatively worded items, reverse scoring was not required. The composition of each of the three measures of service quality (outcome quality, physical environment quality, and interaction quality) will now be discussed.

Outcome quality. Outcome quality was developed from research on the Nordic model of service quality by Gronroos (1984, 2001, 2004) under the umbrella term *technical quality*. However, much of the research assessing the area of service quality in health, recreation and sports centres has adopted a greater emphasis on purely process/functional quality (Howat et al., 1999; Lam et al., 2005).

Initially, little attention, if any, was given to Gronroos's (1984) argument that service quality should include a measure of what customers actually received in terms of benefits that were maintained after the interaction with the service was over. This aspect of service quality was, therefore, largely ignored in the health, recreation and sports centre field until Alexandris et al. (2004a, 2004b) focussed attention on the perception of benefits perceived by customers following cessation of contact[63], tailoring this to the Greek health and fitness industry ($\alpha = 0.89$). Then in 2008, Howat et al. analysed the benefit attainment in the context of Australian public aquatic centres. These studies greatly enriched the concept of outcome quality.

For the current study, the measurement of outcome quality was adapted from the measure used by Alexandris et al. (2004b) in their study on the Greek health and fitness industry (Alexandris et al., 2004b). Their work provided context specific items

[63] In Alexandris et al. (2004a, 2004b) this is called outcome quality.

(including ‘To increase my energy’; ‘To improve my health’; ‘To improve my mood’; ‘To improve my psychological well-being’ etc.).

As the items reflect context specific outcomes, it was anticipated that outcome quality would have good reliability and face validity when applied to an Australian health and fitness context. Outcome quality is therefore a very specific measure in the health and fitness culture that looks at outcomes evaluated against benefits people expect to attain (Alexandris et al., 2004b).

Physical environment quality. The measurement of the tangible element of a service has been a dominant focus in service quality measurement in the sports and leisure field (Chelladurai & Chang, 2000; Howat et al., 1999; Murray et al., 2002). The physical environment specifically refers to the equipment, facilities, atmosphere, design, hygiene, and social condition of the service. Brady and Cronin (2001) argue the concept of physical environment quality is based upon the process/functional quality aspect of a service, focusing more on the tangible elements of a service, as seen in SERVQUAL.

Alexandris et al. (2004b) argue that within a health club, three sub-dimensions of physical environment quality are apparent. These consist of design, ambient conditions and social conditions. In the current study, three items of the scale measured design (‘Facilities are attractive’; ‘Facilities have up-to-date equipment’; ‘Facilities are spacious’), and two items measured ambient conditions (‘Facilities are clean’; ‘Equipment is in good condition’). Two items measured social conditions (‘There is a nice atmosphere in the facility’; ‘Other customers do not affect the service negatively’). It is important to note, however, that the item ‘Other customers do not affect the service negatively’ actually relates to interpersonal constraints as well the subscale of social conditions, suggesting some overlap between both constraints and physical environment quality of a service.

Interaction quality. Interaction quality provides a general assessment of the interpersonal relations that exist between customers and staff of a given service. It has also been referred to as the human element of a service (Alexandris et al., 2004b). The importance of customer and staff interaction is particularly significant in service

industries, since services are typified as highly intangible and heterogenous (Parasuraman et al., 1985). Interaction quality between customers and staff during service delivery has been assessed to varying degrees within sport and leisure contexts (Afthinos et al., 2005; Alexandris et al., 2004b; Murray & Howat, 2002; Howat et al., 1999, 2008).

For example, within private Greek health clubs and Australian public sport and leisure centres, the interaction between staff and the customer is typically assessed. Although the names given to staffing functions have varied based on the factor analytical output of different studies, and have included terms such as interaction quality (Alexandris et al., 2004b) and personnel (Howat et al., 2008), all appear to be common elements in the assessment of a service. The measurement called interaction quality from Alexandris et al. (2004b) suited the current study due to its application specifically to health and fitness customers. In Alexandris et al. (2004b) the measure of interaction quality provided satisfactory psychometric characteristics ($\alpha = 0.90$), as well as context specific items for measuring service quality in private health and fitness clubs. Accordingly, the scale by Alexandris et al. (2004b) was chosen to measure interaction quality.

Alexandris et al. (2004b) found interaction quality in health and fitness centres consisted of the behaviour of staff, the attitude of staff and finally, the expertise of staff. The scale consists of nine items, each of which measured one of the three underlying dimensions of interaction quality. In the scale, three items measured the behaviour of staff ('Employees respond quickly to member's requirements'; 'Employees provide individualised attention'; 'Employees work enthusiastically'). Three items measured the attitude of staff ('Employees are polite'; 'Employees respect members needs'; 'Employees help members feel comfortable'). Finally, three items measured the expertise of staff ('Employees are knowledgeable'; 'Employees are trustful'; 'Employees are reliable').

3.3.5 Satisfaction

In the past, studies such as Howat et al. (1999; 2002) and others (Ganesh et al., 2000; Murray & Howat, 2002) have used a single item measure of overall satisfaction. However, conceptually, there have been numerous concerns raised regarding the use

of single item satisfaction measures. These primarily have related to the failure of a single measure to fully account for the complex nature of satisfaction (Cronin & Taylor, 1992; Parasuraman et al., 1985). This is not to say that a global measure asking individuals to state how satisfied they are overall with a service is always inappropriate. For example, Rosen and Suprenant (1998) have observed that repeated service encounters allow customers to form overall perceptions of satisfaction with a service.

The use of existing customers in the current study, combined with the fact that first-time customers were excluded from the study, made a strong justification for the use of a satisfaction measure. However, the conceptual limitations of relying solely on a single measure are problematic. The current study, therefore, employs multiple items to assess satisfaction. The multiple item satisfaction scale used in the study was derived from the scale employed in Alexandris et al. (2004b), which was adapted from an earlier version developed by Oliver (1997). The scale contains six items, modified to be appropriate for use in the study of a health and fitness centre.

The items measuring these types of satisfaction were:

- 'I am satisfied with my decision to become a member of X health club' (anchor satisfaction).
- 'My choice to become a member of X health club was a wise one' (success attribution).
- 'If I was to choose a health and fitness centre again, I would choose a different centre' (regret, reversed item).
- 'I feel guilty about my decision to become a member of X health club' (failure attribution, reversed item).
- 'I am not happy that I became a member of X health club' (negative affect, reversed item).
- 'I am sure that it was the right thing to be a member of X health club' (success attribution).

There were, then, one satisfaction anchor item, three attribution items, one regret item, and one affect item used in the instrument to measure satisfaction. In terms of conceptualising both affect and attribution let's first consider attribution which is a

phenomenon in consumption experiences detailing both blame (failure) and gratitude (success) assessment. With both cognitive and affective responses (the later subsumes emotion such as happiness/sadness or pleasure/displeasure) accounted for, Oliver (1997) states the more severe, either success or failure is, the greater the emotion felt. The importance of this is highlighted by a need to assess both cognitive and affective elements of satisfaction together, as in regret, with negative affect and failure attribution relating to post purchase thoughts which result because of negative experiences with a brand. This can be compared to positive affect and success attribution which reinforce one's initial decision to consume triggered by pleasure experienced through repeat purchasing of a brand.

Finally, a global measure of satisfaction derived from Howat et al. (2008) was also included ('Overall how satisfied are you with this centre'). Following Alexandris et al. (2004b) each item was measured on a seven-point scale ranging from 1 – 'strongly disagree' through to 7 – 'strongly agree'. This scale, adapted from Alexandris et al. (2004b), has been shown to have high internal reliability ($\alpha = 0.82$).

3.3.6 Involvement

Laurent and Kapferer (1985) developed the CIP scale, later adapted and translated into English by Dimanche et al. (1991). Centrality was added by McIntyre (1989) and Havitz and Dimanche (1999). Other involvement scales do exist, such as Zaichowsky's (1985) PII, a uni-dimensional measure of involvement, which is heavily criticised for failing to consider the dimensional complexity of the involvement construct (e.g. McIntyre, 1989). The CIP offered a multi-dimensional tool to assess the full range of involvement factors (Havitz, Dimanche and Howard, 1993b).

This omission of risk in the McIntyre (1989) study is noteworthy, given that researchers like Murray (2000) argue that risk is a potentially critical factor of involvement in terms of predicting behavioural loyalty within health and fitness centres. Extending the work of Dimanche et al. (1991), the study by Murray (2000) adapted Laurent and Kapferer's (1985) scale to specifically measure involvement in health and fitness centres.

Murray's (2000) involvement scale provides the basis for the measurement of involvement employed in the current study. It was considered the most appropriate involvement scale to employ for the current study because it uses the CIP scale while adding context specific items to assess a health and fitness setting. For the purposes of the current study, Murray's (2000) scale of involvement in health and fitness centres required no modification. Murray's (2000) involvement scale measured four dimensions and covered the full range of involvement factors:

- hedonic leisure
- sign value
- risk
- centrality

The four dimensions were measured by 19 items (e.g. 'I attach great importance to working out'; 'I can say working out interests me a lot'; 'Where you work out says something about you' etc.). The 19 items were assessed by a seven-point scale ranging from 1 – 'strongly disagree' to 7 – 'strongly agree', with two items reverse scored (Laurent & Kapferer, 1985). In the original version of the scale, the factors had alpha values ranging between $\alpha = 0.72$ to $\alpha = 0.90$. Laurent and Kapferer (1985), using a larger sample, produced scale factors with alpha values ranging between $\alpha = 0.54$ and $\alpha = 0.81$ (Kapferer & Laurent, 1985). Murray's (2000) involvement scale, based on Laurent and Kapferer (1985), shows satisfactory internal consistency ($\alpha = 0.77$)

It should be noted that multi-dimensional measures of involvement other than Murray's (2000) scale do exist, but they have either reported poorer reliability and validity results or have discarded elements of the involvement construct, such as the risk profile, altogether (Havitz & Dimanche, 1997; Kyle et al., 2007; Lee et al., 2007; McIntryre, 1989; Siegenthaler & Lam, 1992). Although the current study adopted the position that risk is an important predictor in assessing the success or otherwise of health and fitness centres, it is important to consider why researchers such as McIntryre (1989) have chosen to omit the risk factor from their study.

Many scholars have argued that the risk profile has internal consistency flaws, in that it cross-loads with other dimensions resulting in low internal consistency (Havitz et al., 1993b; Havitz et al., 1994; Havitz & Howard 1995; Kerstetter & Kovich, 1997; Kyle et al., 1999; Madrigal, Havitz & Howard, 1992). Havitz et al. (1997) raised concerns that the risk dimension as applied to the CIP performs poorly due to the risk items being too simplistic. This has been suggested on the basis that the dimension of risk cannot cope with the complex range of behaviours, motivations and outcome of behaviours, such as fear, eustress, and distress (Havitz et al., 1997).

This same basic argument has been the main justification for the elimination of a risk profile by McIntyre (1985) in his study of beach campers. The risk profile is a multi-dimensional construct influenced by at least one of many factors in any given context. These include psychological, physical, satisfaction, social, financial, functional, and temporal factors (Brannan, Condello, Stuckum, Vissers, & Priest, 1992; Cheron & Ritchie, 1982). It has also been argued by Federick, Havitz, and Shaw (1994) that risk is individually perceived as opposed to collectively perceived. What one individual deems as risky behaviour another views as normal. Therefore, if the risk profile does not cope with the complexity of individual interpretation and subsequent behaviour, there is the potential for the profile to introduce unexplained error into an instrument.

However, since Murray (2000) has employed the risk construct successfully in a health and fitness centre, the potential for error is no longer a chief concern; it may instead be argued that risk is specific to behaviours that exhibit a social audience where the judgment of others may influence subsequent behaviour. This example highlights the importance of risk in health and fitness centres where the potential for looking foolish is particularly high, especially if something is not familiar or where we need to build on existing knowledge (for example choreographed movements in a group fitness class).

Like risk, sign value, although seen as a notable contributor to involvement, has also been challenged. Specifically, there is debate over the interpretation of some items used to measure sign value because of flaws in wording that have the potential to impair construct validity. For example, ‘You can tell a lot about a person by whether

or not they play golf' is one of the established items measuring sign value in the CIP. However, this one statement could have multiple interpretations for individuals agreeing with it.

One interpretation of this statement may be that golf is relaxing, because the golfer was spending time with their friends. Another interpretation, however, may be that golf is a pretentious activity only for affluent individuals. Another equally valid interpretation for someone who agrees with this statement could be that golf courses are a cesspool for environmentally dangerous lawn chemicals affecting the natural habitat (Havitz et al., 1997). In each case, the same level of agreement is given, but for wildly differing reasons and, of most note, in some cases reasons that do not relate to what the statement purports to measure – the symbolic attachment of the individual to the activity or behaviour.

Yet these concerns over the appropriateness of some sign value items, although valid, seem to have been overcome in a study by Havitz et al. (1994), who successfully employed the sign value measure and showed that 40% of people in their sample participated in health and fitness centres for symbolic reasons. This means that sign value is a significant predictor specific to health and fitness centres, and was, therefore, assessed in the current study.

3.3.7 Loyalty

Loyalty measures are key outcome variables (typically employed as dependent variables) in consumer behaviour. Accordingly, they have a long and rich history of use in both the broader consumer behaviour field, as well as within the involvement literature (Andreassen & Lindestad, 1998; Backman & Crompton, 1991a, 1991b; Howat et al., 2008; Lee et al., 2007; Morais 2000; Murray, 2000; Park, 1996; Pritchard et al., 1999; Singh & Sirdeshmukh 2000). Understanding of the loyalty construct has increased as the construct has moved from being one-dimensional (Cunningham 1956; Lutz and Winn, 1975; Bennett & Kassarijian, 1972; Jarvis & Wilcox, 1976; Jain, Pinson & Malhortra, 1987) to two-dimensional (Backman & Crompton, 1991a, 1991b; Olson & Jacoby, 1971; Selin et al., 1988), and, more recently, multi-dimensional (Iwasaki & Havitz 1998; Lee et al., 2007; Oliver, 1997;

Park, 1996). Literature on loyalty from Oliver (1997) and Soderland, (2006) has pointed to multidimensional measures of loyalty as the most appropriate for providing more information about loyalty than either single dimensional measures (Howat et al., 1999) or composite measures (Backman & Crompton, 1991a, 1991b).

Accordingly, the current study employed a multidimensional measure of loyalty, with three types of loyalty being measured: attitudinal loyalty, conative loyalty and behavioural loyalty, with behavioural loyalty further broken down into intensity of participation, frequency of visitation and duration of visitation.

This approach to assessing loyalty may be seen as reflective in many ways of the attitude-intentions-behaviour link proposed in the Theory of Reasoned Action (Fishbein & Ajzen, 1975) and the Theory of Planned Behaviour (Ajzen, 1985). The Theory of Planned Behaviour posits (Ajzen, 1985) that if a more positive attitude is held toward a behaviour (for example, 'Exercising tomorrow would be good for me'), a stronger behavioural intention will result (i.e. 'I intend to exercise tomorrow'). This stronger intention will predict whether the individual actually exhibits or follows through with the intended behaviour (e.g. exercising). The model also suggests two other significant antecedents to intentions to a behaviour: a more positive 'subjective norm' ('People who are important to me think I should exercise') and greater perceived control over the behaviour ('I can get to the gym and exercising tomorrow as I have transport and work finishes early'). The model clearly indicates that there is a strong path from the attitude held toward the behaviour, influencing intentions, which in turn influence the actual behaviour.

Oliver (1997) conceptualised a similar relationship in relation specifically to loyalty, which Lee et al. (2007) later tested, and termed the *attitudinal-conative-behavioural loyalty relationship*. In terms of measurement, Lee et al. (2007) adapted Oliver's (1997) conceptualisation, and it was the loyalty scale proposed by Lee et al. (2007) that was employed for the purpose of the current study. However, Lee et al. (2007) adapted the original conceptualisation by collapsing cognitive and affective loyalty into attitudinal loyalty. All three loyalty measures were assessed using an identical seven point Likert scale ranging from 1- 'strongly disagree' to 7 – 'strongly agree', with each described in detail below.

For attitudinal loyalty, items developed were based on the measure proposed by Lee et al. (2007) to ascertain the level of psychological commitment to the brand. For example, a number of studies have identified psychological commitment, as representing attitudinal loyalty (Lee et al., 2007; Kyle et al., 2004; Mahoney et al., 2000). The five item scale for attitudinal loyalty employed for the current study consisted of 'This centre means a lot to me'; 'I enjoy working out at this centre more than any other place'; 'I am very attached to this centre'; 'It would be difficult to change my beliefs about this centre'; 'I would not easily change my selection of this centre as a recreation site'. The items employed in this study were influenced by other established scales (Moore & Graefe, 1994; Pritchard et al., 1999; Williams et al., 1995). Lee et al. (2007) found attitudinal loyalty demonstrated high internal consistency ($\alpha = 0.89$).

Items to measure conative loyalty were derived from Lee et al. (2007) ('I would recommend this centre to people who seek my advice'; 'I would tell people positive things about this centre'; 'I would recommend this centre to my friends'). This is a well established scale employed in Price and Arnould (1999) assessing word of mouth intentions. The study by Lee et al. (2007) reported good internal consistency for this measure ($\alpha = 0.91$) and therefore it was employed in the assessment of conative loyalty.

For behavioural loyalty studies in the broader area of recreation and leisure, researchers such as Backman and Crompton (1991a) and later Lee et al. (2007) have typically employed the behavioural loyalty measure based upon frequency of visitation. For example, how many days' participants attended a centre during the year. There are reasons, however, to consider an overall measure inappropriate and methodologically flawed. For example, asking participants to recollect a year's worth of activity brings into question the participant's accuracy in response to such an item.

In contrast, Park (1996) assessed aerobic dance in fitness centres by de-constructing the concept of behavioural loyalty into its constituent parts. Park (1996) paid particular attention to the length of time spent in the activity per session, intensity of participation and frequency of visitation per week. Furthermore, Park (1996) argued this provided a more accurate and complete report on behavioural loyalty.

Since Park (1996) first began advocating for a more detailed understanding and measurement of actual behaviour of customers/participants, this need has been widely acknowledged. For example, Alexandris et al. (2004b) proposed behavioural measures including frequency and duration should be included in future research on loyalty in private sports centres due to the inadequacy of current measures of loyalty.

Following Park (1996), the current study assessed behavioural loyalty operationalised as three distinct variables: frequency of visitation to the centre, intensity of participation at the centre and duration of visitation. These three measures of behavioural loyalty (intensity, frequency and duration) are generally accepted in physical activity surveys to capture the full range of behavioural loyalty (Park, 1996; Armstrong, Beauman, & Davies, 2000).

Although Park's (1996) behavioural measures are by no means perfect due to the fact that they are ordinal measures of the construct, it is an accepted practice in the sports and leisure field to use these types of ordinal behavioural measures within regression analysis. Park (1996) assessed ordinal behavioural loyalty measures consisting of intensity of participation, frequency of visitation and duration of visitation in a regression analysis upon involvement in adult fitness programs.

3.4 Pilot Study

Once developed, the CSSIL instrument was tested for reliability and validity through preliminary testing, followed by the use of a pilot study.

The first stage of this process was a face and content validity assessment of the first form of the instrument by both academics and industry professionals with up to sixteen years experience in the field. These judges assessed content validity[64] in terms of whether items were relevant, and representative of service quality, satisfaction, constraints, involvement, and loyalty constructs within the questionnaire. The expert judges made recommendations regarding changes to the wording of items, as well as examining the questionnaire to determine its appropriateness to the research question.

[64] Content validity may be defined as one or more independent judges who agree that the items on the scale appear to be about what the researcher is trying to measure.

Minor modifications were suggested[65], primarily focused upon changes in wording of items to minimise the potential for confusion amongst participants.

The pilot questionnaire was then administered to a sample of health and fitness centre participants (N = 45 participants) to determine if any items needed to be rephrased, and to assess the face validity of the instrument as per Murray (2000). Participants were provided with a cover sheet outlining the purpose of the study, which emphasized that their participation was voluntary, confidential and anonymous (Appendix 2). These participants could be considered as having experience with the service, and would also most likely reflect the anticipated profile of participants in the activities included in the main study. The sample selection procedure in the pilot study showed no major conceptual or methodological issues, confirming the results of the content validity checks previously outlined. Participants described the questionnaire as easy to understand, but some raised concerns regarding the overall length of the questionnaire. However, this was an accepted limitation given the need to assess all the relevant variables.

The last step of the pilot study was to assess construct reliability through the use of Cronbach's alpha. Results in each of the three scales used in the pilot study showed acceptable to good reliability ($\alpha = 0.7$ to $\alpha = 0.8$). Given that the pilot study had no major methodological issues, it seemed appropriate to proceed with the main study.

3.5 Procedure for the main study

Approval from the University of South Australia's ethical committee was obtained to conduct the study in the selected health and fitness centres. The study employed a stratified sampling approach, where specific classes were identified and targeted for data collection.

Sekeran (2000) indicates stratified sampling has a number of benefits as a data collection approach. It is an efficient sampling technique that ensures a sample across a wide range of users due to a collection schedule format. Therefore, this sampling

[65] Of particular note was the constraints item 'My work commitments do not allow me the time to participate' this negative item was recommended to be changed to 'My work commitments allow me the time to participate' (positively worded).

approach seemed the most appropriate sampling technique, given the context of the current study (group fitness class participants) that consisted of a timetable with certain classes starting at certain times of the day. Furthermore, this sampling technique is commonly used in the sports and leisure fields (Bouma, 1996; Murray 2000; Howat et al., 2002) as it allows researchers to collect data from a defined range of customer types. Therefore, stratified sampling includes the majority of benefits that generalised random sampling achieves, including generalising to populations, whilst ensuring that specific user groups are included in the scope of the sampling (Bouma, 1996; Murray, 2000).

Participants were contacted within each of the five centres chosen as sites for the study. The researcher was positioned outside the group fitness class where customers congregated while waiting for the class to start. Customers waiting for the classes were then approached by the researcher and asked if they would be interested in participating in the study. Customers who stated they were interested were asked if this was their first time at the centre. If it was their first visit they were thanked and informed that the study was focussing on on-going or experienced members of the centre[66].

Participants who were not first time customers, and agreed to participate in the study, were then provided with an information and cover sheet explaining the study and the questionnaire. Participants that agreed to take part in the study were also informed that their responses would be both anonymous and confidential, and that they had the right to withdraw from the study at any time. The information page also included information about the research, the researcher, and reinforced the voluntary nature of the study and the anonymity and confidentiality of participants.

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[66] When customers were given the questionnaire they were asked whether or not they were first-time customers, if they were then they were excluded from the study to ensure that satisfaction ratings were based on repeat visits (Jones & Suh; Howat et al. 2002). Following Murray (2000) only participants who had memberships were included in the study. As mentioned, this may be a potential limitation of the study due to the skew towards more highly involved participants (Buchanan, 1985; Murray 2000). However, it is essential that this criterion is set in place due to the need for a reliable perception of service quality.

Participants were given the option of either completing the questionnaire before the class started[67] or at home. For questionnaires completed at home, participants were asked to return the completed questionnaire in the pre-paid self-addressed envelope provided. It was considered that a mail return option for participants, combined with the relatively long questionnaire might reduce the potential response rate to the instrument. It is widely accepted that response rates from 10-30% are typical for mail return surveys (Neuman, 1997). Furthermore, the responses are not necessarily representative of all attending customers, as it is only a small proportion who would be expected to respond. This is an accepted limitation of the study, as it is unavoidable given the nature of the need to collect attending customer data in health and fitness centres, and is consistent with the principles of generalisability of a sample to a population (Neuman, 1997)[68].

3.6 Data analysis

SPSS 15 was used to assess all quantitative analysis conducted in the study. The first phase of the data analysis involved assessing the reliability and validity of the data. This required checking the data for errors, as well as data cleaning, by checking and removal of outliers. Frequency analysis was employed to identify data entry errors, with any errors of entry (for example, a six entered as a response to a five point scale) identified and checked with the original questionnaire.

Once this cleaning process was completed, general data screening was conducted to ensure removal of notable outliers or invalid cases. This was conducted through application of box plots[69] and Mahalanobis distance scores[70] for univariate (extremes

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[67] Generally, group fitness customers would turn up 15-25 mins before each class started and wait outside the class. This therefore provided an opportune time to approach customers about the study whilst they waited for the class to start. Customers typically arrive early to ensure a place in the upcoming class, as the centres functioned on a first come first serve principle. Due to the size of the group fitness class room, health and fitness centres have to comply with health and safety regulations and do not exceed maximum numbers. Once capacity of the class is reached, no other customers can attend.

[68] As stated earlier four hundred questionnaires were distributed of which 294 were used in the study (response rate of 74%), of which 73 out of 179 were returned by mail and 221 were obtained on site.

[69] Any scores that SPSS considers outliers appear as little circles with their ID number away from the edge of the box plot.

on one variable) and multivariate normality (extremes on two or more variables) undertaken in the first phase of the analysis (Tabachnick & Fidell, 2007). Therefore, multivariate outliers were assessed by application of Mahalanobis distance scores, whereby the cut-off was based on the chi-square value at $p \leq 0.01$ where df = number of variables in analysis (Tabachnick & Fidell, 2007).

3.6.1 Data screening

Skewness and kurtosis for univariate normality were assessed by identification of skew and kurtosis[71] values lying between -1 and +1 (Bryne, 1998). Violation of multivariate normality that was likely to result in a skewed distribution was expected, given that the participants in the sample were already exercising. Mardia's kurtosis was used to determine whether kurtosis was large. Mardia's multivariate kurtosis indicated that multivariate normality assumptions had been violated. Satisfaction and loyalty measures were negatively skewed in the current study[72].

Consequently, Maximium Likelihood (ML)[73] was considered the most appropriate action due to the violation of assumptions of multivariate normality. McDonald and Ho (2002) contend that Maximium Likelihood (ML) is robust to violations of this assumption, and studies in the area of sport and leisure have traditionally violated multivariate assumptions of skew and kurtosis for variables such as intention to return, satisfaction and loyalty measures (Howat et al., 2008).

ML is particularly impressive as it does not impede the power of the sample. It is therefore an approach which works with an incomplete data set (as opposed to techniques like pairwise deletion which attempt to firstly create a full data matrix), and produces estimates by maximizing the likelihood of the observed data for each

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[70] To identify outliers the chi-square value was determined using the number of independent variables as the degrees of freedom (Tabachnick & Fidell, 2007).

[71] Univariate normality assumption with all values between -1 and +1

[72] Loyalty variables were transformed using a logarithmic transformation, but this transformation did not eliminate skewness, and in some cases it made skewness worse. Given the nature of the sample, however, with participants in the sample already exercising skewed distribution is to be expected.

[73] Imputation was carried out through missing data analysis, EM was selected. Little's MCAR test was not significant $p>0.01$ with less than 5% missing for small variables or cases.

case. However, assumptions of multivariate normality have been relaxed recently due to problems with meeting the assumptions of multivariate tests (Howat et al., 2008). From a historical perspective on ML, Anderson and Gerbing (1988) report issues exist when data is leptokurtic (peaked) or platykurtic (flat) causing either the rejection of the null hypothesis for overall fit (when the data was peaked) or the opposite result (when the data was flat). In contrast, Kmenta (1971) points out that ML has the advantageous asymptomatic properties of being reliable and efficient therefore taking care of the assumptions of multivariate normal distribution of observed variables. Overall, ML has the added advantage of working well with small sample sizes when data is non-normal compared to other techniques such as generalized least squares (GLS) and WLS (Olsson, Foss, Troye & Howell, 2002). Kmenta (1971) refers to ML as being unbiased, with support from studies showing that ML reduces the bias that are present in deletion techniques (Little & Rubin, 1987).

3.6.2 Factor analysis assessment

Data reduction was used to simplify manifest variables by applying factor analysis as per Alexandris et al. (2004a) and Murray (2000). Principal components factor analysis (Direct Oblimin rotation) was conducted on each of the instrument scales to identify the underlying dimensional structure, as well as to highlight individual questions that lack appropriate validity (Hair et al., 1995).

To achieve this, Sekeran (2000) recommends exploratory factor analysis. Oblique rotation was implemented since fields as complex as service quality, constraints, and involvement cannot assume that there are little or low levels of inter-item correlation (Hair et al., 1995). This is unlike the technique of orthogonal rotation methods in which Variamax forces (and assumes) independence among the factors, such an approach would have been unrealistic and inappropriate to measure variables such as involvement (Havitz et al., 1991).

Therefore, an oblique rotation method, using Direct Oblimin was selected, acknowledging that dimensions are often correlated (Harman, 1976; Kass & Tinsley, 1979; Dimanche, Havitz, & Howard, 1991). The final sample size of 283 was

appropriate[74] for factor analysis to be used, since a sample size of around 75-100 will be accepted as providing stabilization of correlation matrices (Figuerdo, Mc Knight, & McKnight, 1997; Murray, 2000). Hair et al. (1995) also support this view, indicating that the minimum sample for exploratory factor analysis is between 75-80, to allow stabilisation of the factor matrices.

3.6.3 Reliability assessment

Reliability may be defined as the consistency of measurement; for example, a test remains resistant to differing situations or procedures of testing (Hair et al., 1995). Scores for an attribute need to be internally consistent (they do not change if you give the measure again to the same people). To ensure internal consistency was being maintained, Cronbach's alpha was employed to assess each of the three individual scales. Cronbach's alpha is a reliability test that expresses the reliability of a scale co-efficient and determines the internal consistency of a scale (Hair et al., 1995; Sekeran 2000). The closer the reliability co-efficient to 1, the better the internal consistency of the scale. Sekeran (2000) suggests that Cronbach's alpha co-efficients of less than 0.6 indicate poor internal consistency of a scale, whereas 0.7 indicates acceptable internal consistency, whilst 0.8 and above indicates good internal consistency.

3.6.4 Mediated hierarchical regression

Recently regression analysis has become very common in sport and leisure studies. In particular it has been employed by Alexandris et al. (2006) to determine the relationship between service quality, place attachment and loyalty, followed by Alexandris et al. (2008) who assessed the relationship between constraints, involvement and loyalty in skiing. In the current study the identification of mediating variables was one of the main focal points. Mediation takes place when an independent variable (IV), such as service quality, indirectly impacts upon a dependent variable (DV), such as loyalty, through a mediating variable (MV), such as satisfaction. Furthermore, mediated hierarchical regression allows the researcher to decide on theoretical grounds the order in which the independent variables should be entered (Howitt & Cramer, 1999).

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[74] Originally there were 294 cases but some cases (11) were deleted as indicated by the Mahalanobis distance scores.

Data analysis in the current study used mediated hierarchical regression analysis for two main reasons. Firstly, mediation exists when an independent variable affects a dependent variable indirectly through the presence of an intervening variable (Preacher & Hayes, 2008). This makes mediated regression analysis well suited to the research questions in the study, as assessing the presence or effect of a mediator is central to the majority of the hypotheses (for example, examining whether involvement mediates the relationship between service quality and loyalty).

Secondly, the use of regression analysis dominates the service quality (Alexandris et al., 2004a; Alexandris et al., 2006), involvement (Murray, 2000; Alexandris et al., 2008), and constraints (Alexandris et al., 2008) fields[75]. However, there are fewer studies that have actually employed direct mediation techniques in the sport and leisure field (Alexandris et al., 2007; Theodorakis et al., 2009). For example, it is only recently that regression analysis has been used by Alexandris et al. (2007), following Barron and Kenny's (1986) criteria to determine the mediated relationship between constraints and intentions to participate in physical activity.

A major strength of mediated hierarchical regression is that the effect of a mediator variable can be directly assessed, as can whether the mediator either fully or partially mediates the relationship between the IV and DV Accordingly, by employing mediated hierarchical regression, the current study will provide a useful extension to these various fields of enquiry.

3.6.5 Tests for mediation

The mediator most typically represents a mechanism that explains the relationship between an IV and a DV (Barron & Kenny, 1986). Barron and Kenny (1986) argue mediation can be identified by four criteria:

1) There is a significant correlation between the IV (e.g., constraints) and DV (e.g., loyalty).
2) There is a significant correlation between the IV and the MV (for example, involvement).

[75] Although Mediated Hierarchical Regression and the Sobel test are new to these fields mediation itself has a long and rich history of practice (Veblen, 1899; Hyman, 1955; MacCorquodale & Meehl, 1948).

3) The MV should have a significant unique effect upon the DV alongside the IV in a multivariate test of these relationships.

4) The effect on the IV on the DV should be significantly attenuated or nullified when the mediators are included as independent predictors of the DV.

There are, however, alternative approaches to test mediation. Lindley and Walker's (1993) use of multiple regression to test mediation, for example, is very similar to Barron and Kenny's (1986) correlation approach:

Step 1) In the first regression the IV is regressed upon the DV.

Step 2) If the relationship is significant, the IV is regressed upon the MV.

Step 3) If the IV significantly predicts the MV, then the IV and the MV are regressed upon the DV.

It is argued that the strongest case for mediation is when the path between the IV and DV becomes zero, as this suggests that there is a single dominant mediator operating in the model (Lindley & Walker, 1993).

Frazier, Tix, and Barron (2004) have proposed that when the path between the IV and DV becomes zero, then the relationship may be seen as fully mediated. MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) note that Barron and Kenny's (1986) approach is the most common method to test mediation. However, more recent research has suggested that Barron and Kenny's (1986) approach to mediation may be flawed due to low statistical power and Type 1 error rates that are too low, unless the effect of a sample size is large (MacKinnon et al., 2002). Moreover, information about the strength of mediation is not known, nor is the amount of influence exerted by the IV's effect on the DV through the MV (Dudley & Benuzillo, 2004).

Collins, Graham, and Flaherty (1998) insist that Barron and Kenny's (1986) interpretation is wildly inaccurate, because the initial step between the IV and DV in Step 1 (in the current study, constraints upon loyalty) is not essential because:

> *in a mediated process, everything is set in motion by the independent variable, but the proximal cause of the outcome is the mediator, not the independent variable…in other words…the independent variable leading to the mediator, and the mediator leading to an outcome. (Collins et al., 1998, p. 297).*

It is the relationship between the IV and MV (in the current study, constraints upon involvement) that is important, not the relationship between the IV and DV (Collins et al., 1998), a finding supported by other researchers (Shrout & Bolger 2002; Mackinnon, 2000; Mackinnon et al., 2002). Therefore, Collins et al. (1998) suggest a different assessment criterion from that proposed by Barron and Kenny (1986) in which they outline the idea of mediation as a chain reaction. Firstly, the IV affects a MV, then the MV affects an outcome (DV).

For even more complex models, such as is in the current study, Sobel (1982)[76] developed an approximate significance test that accounts for the indirect effect of the IV upon the DV through the MV. The Sobel test is represented by the following formula:

$$\textbf{z-value} = a*b/SQRT(b^2*s_a^2 + a^2*s_b^2),$$

Where a= the path from the IV to the mediator, is represented by a and its standard error s_a,

b = the path from the mediator to the DV, is represented by b and its standard error is s_b .

Mediation can be tested with regression analysis and then further testing the mediating variables via Sobel's (1982) method. This was the approach taken by the current study and is a recommended approach in research (Sobel, 1982). Testing mediation with a series of regression analyses inflated Type 1 error rates (inflating the probability of a statistically significant effect when there is really not one); but, as the Sobel test is more resilient to Type 1 error (McKinnon, Lockwood, Hoffman, West & Sheets, 2002), its use should counter Type 1 errors and low power.

Finally, Wheaton (1985), states that MV's can have an additive or suppressive influence upon the relationship between the IV and DV. This is determined by calculating direct, indirect and total effects within the causal model. An additive effect is indicated by an increase in the total effect on the DV. In contrast, a suppressive effect is indicated by a decrease in the total effect on the DV.

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[76] Sobel's (1982) equation shows the path from the IV to the mediator is represented by a and its standard error is sa; the path from the mediator to the DV is represented by b and its standard error is sb. In other words whether a mediator takes the influence of an IV to a DV.

3.7 Summary

In summary, Chapter 3 has identified the design of the study, described participants, materials and scales used in the study, providing justification of the scale's statistical power and its context specific measures, and described the procedure adopted. Finally, Chapter 3 justified the types of statistical tests employed to answer the research questions. Chapter 4 will now provide the results.

Results

Chapter 3 provided a detailed examination of the research methodology used for the current thesis. It outlined the design of the study, a rationale for participant selection, the procedure employed for instrument administration, and considerations in relation to data collection. It also outlined the CSSIL instrument employed in the current study, giving a detailed description of the measures of customer service quality, satisfaction, involvement and loyalty, focusing on their reliability and validity for use in the study.

Several key limitations and assumptions of the method employed for the study focused on the rationale for choice of location, site and research population. The major forms of data analysis undertaken in addressing the key research questions and hypotheses of the study were also explained.

Chapter 4 provides a comprehensive analysis of the results, with separate sections to address each specific hypothesis. The first section highlights the characteristics of the sample for the study. The second section outlines the findings of the study. Although some discussion is presented in Chapter 4, a more detailed interpretation of the results and their implications, as well as a consideration of areas for further research will form the basis of Chapter 5.

4.1 Demographic profile of participants

4.1.1 Gender

The customer profile of the group fitness classes were, as expected, dominated by female participants, who made up 80% of the sample (refer to Table 4.1). This is typical of group fitness classes organised by health and fitness centres as traditionally more females participate than males in aerobics/fitness type classes (ERASS, 2008[77]; Murray & Howat, 2002).

[77] Although male participation in group fitness type settings has increased dramatically since 2001-2008, data recorded in the ERASS (2008) report shows female participation still dominates these types of setting. For example, 18.5% of females in Australia participate in aerobics/fitness classes organised by fitness, leisure or indoor sports centre. In comparison only 12.5% of males participate in aerobics/fitness classes organised by fitness, leisure or indoor sports centre.

4.1.2 Age

The mean age of customers in the sample was 39 years. The age profile of customers was reflective of similar Australian sports, recreation and leisure centres (Murray, 2000; Murray & Howat, 2002). For example a similar demographic profile was obtained by Murray and Howat (2002) in their study of Australian public sports and leisure centres, where they found that the sample of fitness participants was dominated by the 30-49 (80%) year age group. This age profile can be compared to the American health club industry where the 35-54 age group make up 35% of the health club population (IHRSA, 2005).

4.1.3 Other demographic details

The more popular group fitness activities undertaken by participants in the study include body attack, body pump and RPM[78] (refer to Table 4.1).

In terms of other aspects of participation, 98% of participants had attended at least some fitness classes at the centre in the last three months, with 78.3% of the participants visiting the centre alone. 64% of participants lived less than five kilometres from the centre with only 8% residing more than 10 kilometres from the centre. This is a potentially interesting finding, as the distance a customer travels to attend a centre may, along with other factors, such as availability options or work location, provide an indication of their level of involvement with the centre. The distance travelled to the centre may be a behavioural indicator of involvement and could be a useful variable in future research.

The majority of participants visited the centre in the evening, with 47.5% visiting the centre after 6pm. The majority of participants (27.5%) visited the centre three times per week, with 26.4% visiting the centre two times a week, 15.4% visiting four times per week, 11.4% five times per week and 6.1% visiting the centre six times per week, 60% of participants visit the centre between 1-2 hours; whereas 32.5% visited the centre for between 30 minutes and one hour. Finally, 66.4% rated the intensity of their participation as vigorous, with 29.7% as moderate and 3.9% as low.

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[78] These are all trademarked group fitness classes developed by Les Mills Fitness, and licensed to the majority of health and fitness centres in Australia.

Table 4.1: Demographics including age, gender, marital status and occupation.

Age	Attended classes in the last 3 months	Gender	Marital status	Occupation	Type of Classes attended	Distance from home	Time of use	Visits per week	Hours per session	Intensity
Mean 39	Yes 97.8%	Males: 20.1%	Single: 34.8%	Manager: 12.6%	Body attack 23.3%	Less 5km 63.8%	Before 9am 17.1%	One 13.2%	Less 30mins 0.7%	Low 3.9%
	No 2.2%	Females: 79.9%	Married 59.5%	Professional: 33.5%	Body pump 14.8%	5-10km 27.9%	9am-12 25.0%	Two 26.4%	30-one 32.5%	Moderate 29.6%
			Separated /divorced 5.7%	Associate: 1.1%	RPM 14.8%	10km+ 8.3%	12-3pm 2.5%	Three 27.5%	1-2 59.6%	High 66.4%
				Tradesperson: 2.2%	Body step 12.0%		3-6pm 7.9%	Four 15.4%	Over 2 7.1%	
				Clerical: 17.6%	Body jam 5.3%		6pm+ 47.5%	Five 11.4%		
				Labourer: 0.4%	Body combat 3.2%			Six + 6.1%		
				Home duties: 7.2%	Other 7.4%					
				Retired: 7.2%						
				Other: 21.6%						

4.2 Reliability and validity of the component scales

The first stage of analysis of the data (beyond profile analysis as outlined in Section 4.1) focused upon the reliability and validity of component scales, as well as determining their underlying structure. This also then allowed for the variables of each of the sub-scales of the main conceptual scales (service quality, constraints, involvement and loyalty) to be derived.

4.2.1 Service quality

Table 4.2 outlines the factor analysis for the service quality scale; it shows various items that load on specific factors[79].

Principal axis extraction, with oblique (direct oblimin) rotation was undertaken on the service quality scale. Oblique rotation was selected as, unlike orthogonal rotation methods such as varimax, it does not assume that any underlying latent factors are uncorrelated. In most social behavioural research scales, such as measures of service quality, or involvement, it may be assumed that there will be some level of inter-correlation among latent factors (Fabrigar, Wegener, MacCallum, & Strahan, 1999).

Table 4.2 indicates that the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy for the service quality scale employed in the study was 0.894. Tabachnick and Fidell, (2007) argue that a value of 0.6 or above obtained on the Kaiser-Meyer-Olkin Measure points to compact patterns of correlations that yield distinct factors. A figure higher than 0.6 suggests that the scale is well suited to employing factor analysis to reduce the items to underlying factors or dimensions. Barlett's Test of Sphericity was also conducted.

Barlett's Test of Sphericity tests the strength of the relationship that may exist among the items in the scale. Specifically, Bartlett's Test assesses the null hypothesis that the items in the scale are uncorrelated. If this test was not significant, it would suggest that there is not a strong relationship among the variables, indicating that there is a very low likelihood of underlying factors or dimensions being identified through factor analysis (Tabachnick & Fidell, 2007).

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[79] In assessing the suitability of the data for factor analysis in Tables 5-9, the correlation matrix was checked for coefficients of 0.3 and above.

Table 4.2: Factor analysis pattern matrix for the service quality scale

Service quality scale Items	Factor 1 (Staff Interaction)	Factor 2 (Outcome)	Factor 3 (Physical Environment)
Employees are trustful	0.841		
Employees help members feel more comfortable	0.780		
Employees are reliable	0.760		
Employees provide individualised attention	0.743		
Employees are knowledgeable	0.739		
Employees respect members' needs	0.712		
Employees work enthusiastically	0.675		
Employees are polite	0.660		
Employees respond quickly to members	0.592		
Improve my mood		0.835	
Improve my health		0.829	
Improve my psychological well being		0.802	
Improve my fitness level		0.786	
Increase my energy		0.773	
Facilities have up-to-date equipment			0.864
Facilities are attractive			0.851
Equipment is in good condition			0.823
Facilities are Spacious			0.725
Facilities are clean			0.660
There is a nice atmosphere in the facility			0.561
Other customers do not affect the service negatively			0.352

Principal Axis, Direct Oblimin Rotation
Number of factors extracted: 3; Total Variance explained: 62.59%
Eigen value: Factor 1 = 7.65; Factor 2 = 3.10; Factor 3 = 2.40
Percent of variance: Factor 1= 36.41%; Factor 2 = 14.75%; Factor 3 = 11.43%.

KMO Measure of Sampling Adequacy = 0.894; Bartlett's Test of Sphericity: χ = 3528.72; df =210; p = <0.001.

For the service quality scale, the Bartlett's figure recorded was significant ($p \leq 0.001$), indicating that the variables are correlated and that it is appropriate to undertake a factor analysis on the scale.

Three factors were extracted, explaining 62.59% of the total variance (Table 4.3). All three factors supported those found in the Alexandris et al. (2004b) on Greek health

and fitness centres which consisted of staff interaction quality, outcome quality and physical environment quality. For example, the findings of the current study identify the first factor (nine items) as staff interaction quality, the second (five items) labelled as outcome quality, and, finally, the last factor (seven items) was labelled as physical environment quality. In addition, none of the individual items cross-loaded or failed to load on a single factor, with all 21 items being retained for further analysis.

Staff interaction quality consisted of the items 'Employees are trustful'; 'Employees help members feel more comfortable'; 'Employees are reliable'; 'Employees provide individualised attention'; 'Employees are knowledgeable'; 'Employees respect members needs'; 'Employees work enthusiastically'; and 'Employees respond quickly to members requirements'. All items in this first factor clearly related to staffing functions, and the interaction between staff and the customer.

Outcome quality consisted of items 'Improve my health'; 'Improve my mood'; 'Increase my energy'; 'Improve my psychological well-being'; and 'Improve my fitness level'. Items loading on this factor clearly pertained to the potential benefits, or outcomes, that could be attained by the individual through on-going participation.

Finally, the factor **physical environment quality** related to the tangible elements of the service provided. It consisted of the items 'Facilities have up-to-date equipment'; 'Facilities are attractive'; 'Equipment is in good condition'; 'Facilities are spacious'; 'Facilities are clean'; 'There is a nice atmosphere in the facility'; and 'Other customers do not affect the service negatively'.

The internal reliability of each of the three service quality sub-scales was calculated using Cronbach's alpha. Reliability is a measure of how consistently a scale will record the same responses. In other words, with a reliable scale, we can be fairly confident that any differences that are seen in responses to the items are due to underlying differences in the respondents, rather than the scale being confusing, or unclear (Hair et al., 1995). Cronbach's alpha is a widely employed measure of the reliability of a scale. The calculation of Cronbach's alpha takes the number of items in the scale (or subscale) and then calculates the ratio between the average co-

variance between the items and the average item variance. Accordingly, a figure close to one indicates a higher level of reliability in the scale. Cronbach's alpha is expressed as the following:

$$\alpha = k\left(\frac{cov}{var}\right)1+(k-1)\left(\frac{cov}{var}\right)$$

Staff interaction quality produced a Cronbach's alpha of 0.910; outcome quality resulted in a Cronbach's alpha of 0.899; and physical environment quality recorded a Cronbach's alpha figure of 0.877. As per Sekeran (2000), all three factors indicated good internal consistency, with alpha figures all close to one. Based on the results of the factor analysis, items for each factor of service quality were then calculated by generating a mean of all individual items that loaded on a given factor and saving these as a variable for further analysis (Tabacnick & Fidell, 2007). This approach was followed for all scales used in the survey. The advantage of using the mean as opposed to factor scores was that the mean provides a standard scale of measurement across each variable regardless of the number of items, whereas factor scores do not.

The current study applied the IPO model to an Australian health and fitness context, supporting a three factor model reported by earlier research (Alexandris et al., 2004b; Brady & Cronin 2001). The current investigation highlighted the fact that the IPO model has now been successfully applied in an Australian private health and fitness context. The finding indicates the robustness of the three factor IPO model which has now been confirmed in three different countries across five different contexts.

However, it must be noted that the literature reveals that researchers regard the inconsistency of factor stability to be the result of the specifics of a particular service (Babakas & Boller, 1992). This argument is supported strongly by other studies, including Carman (1990), Galiano et al. (1994), Murray (2000), Howat et al. (1999), and Ausbonteng et al. (1996). Factors that are replicated across such a full range of situational or cultural contexts are a rare occurrence in the service quality literature, but the factor stability shown in the IPO model is unique in the respect that it has been successfully applied to several different situational and cultural contexts. For example, the specifics of all these services and contexts tested by the IPO model would have been different, yet it is interesting to find that the IPO factors remain stable.

It is necessary to highlight why the IPO model seems to be so robust when compared to other service quality models. Firstly, it could be argued the QUESC model is unmanageable as it simply has too many factors which are confusing in both practice and application to different situational and cultural contexts. This may be one reason why researchers such as Papadimitriou and Karteroliotis (2000) who applied the QUESC model to a different contextual setting found that the dimensions were not supported.

However, turning attention to the CERMCSQ model, it could be argued that this model was designed for public and not private settings; therefore employing this instrument may not be appropriate for private settings. However, two main points need to be considered with regards the CERMCSQ (Howat et al., 1999). This model has three factors, as does the IPO model. Although some of the factors in the CERMCSQ are different from the IPO model, for example, peripheral[80] vs. outcome quality[81], some factors are very similar to the IPO model. The similarities consist of personnel and core services, described in Howat et al. (1999), with both factors relating to either staffing functions or functions relating to facilities.

These two factors parallel interaction quality and physical environment quality described in Alexandris et al. (2006). Moreover, staffing function is also measured in SERVQUAL. If we consider the dimensions of SERVQUAL, assurance refers to employees' knowledge, whereas empathy expresses employees providing individualised attention to customers, and lastly responsiveness refers to employees' helping customers by providing prompt services. This indicates that SERVQUAL, like the IPO model, and CERMCSQ also emphasize staffing functions.

Secondly, if similarities in attributes do exist, then the reason for the IPO model having universal application to different cultures and situational contexts must have something to do with the differences between the models. The main difference between CERMCSQ and the IPO model is the third factor of outcome quality. Outcome quality was only presented in the IPO model and not in the earlier version

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[80] From Howat et al. (1999) CERMCSQ model.

[81] The name prescribed to define the attribute in Alexandris et al. (2004) and the current thesis

of the CERMCSQ model (Howat et al., 1996). It may be that outcome quality, when assessed alongside the other two factors (physical feature quality and staff interaction quality), enhances the predictability of the IPO model to different situational and contextual settings.

Outcome quality is the attribute that Alexandris et al. (2004a) argue defines customers' perceptions over the outcome of their exercise participation. Outcome quality is growing in appeal with more recent research by Howat et al. (2008) adopting a similar approach to measuring outcome quality by measuring benefits attained in the CERMCSQ model, with benefits attained being conceptually similar to outcome quality.

In summary, the three factors that were found in the current research were consistent with the service quality model presented by Alexandris et al. (2004b), which originally proposed a three factor model consisting of staff interaction quality, physical environment quality and outcome quality.

4.2.2 Satisfaction

Table 4.3: Factor analysis pattern matrix for the satisfaction scale

Satisfaction Scale Items		Factor 1 (Satisfaction)
My choice to become a member of X health club was a wise one		0.989
I am satisfied with my decision to become a member of X health club		0.920
Overall how satisfied are you with this centre		0.628
I am sure that it was the right thing to be a member of X health club		0.547

Principal Axis, Direct Oblimin Rotation
Number of factors extracted: 1; Total Variance explained: 53.23%
Eigen value: Factor 1 = 53.23%
Percent of variance: Factor 1= 53.23%

KMO Measure of Sampling Adequacy = 0.804; Bartlett's Test of Sphericity: χ = 929.317; df = 21; p = < 0.001

The KMO and Bartlett's test indicated that it was appropriate to conduct factor analysis. The satisfaction scale explained in total 53.23% of the total variance. However, the factor analysis indicated the satisfaction scale was a uni-dimensional scale. On closer inspection, the possibility of a two factor structure for satisfaction

based on Kaiser's (1974) criterion[82] was considered, as the value for the existing factor was marginally over 1. However, the notion of a two factor structure was discarded since the screeplot did not indicate the existence of two factors, and the existing factor did not capture much of the variance. Therefore, the second factor was dropped, which included items 'I feel guilty about my decision to become a member of X health club', and 'I am not happy that I became a member of X health club'.

The five items tested for reliability consisted of: 'I am satisfied with my decision to become a member of X health club'; 'My choice to become a member of X health club was a wise one'; 'If a health and fitness centre again, I would chose a different centre'; 'I am sure that it was the right thing to be a member of X health club'; 'Finally, overall how satisfied are you with the centre'. The satisfaction scale recorded a Cronbach's alpha value of 0.810, showing good internal consistency.

However, on closer inspection, the item 'If I was to choose a health and fitness centre again, I would choose a different centre' was problematic. This item recorded the lowest item total correlation and it was indicated that if the item were discarded, the reliability would increase to 0.823; therefore this item was taken out. The alpha value was similar to that obtained by Alexandris et al. (2004b), who reported an alpha value of 0.82, using the same version of Oliver's (1997) satisfaction scale.

4.2.3 Constraints

Table 4.4 highlights the items and subsequently their factors for the constraints scale.

Following the approach taken for the service quality scale and satisfaction scale, the same principal axis extraction, with oblique rotation was employed to assess constraints (Table 4.4). The KMO and Bartlett's test indicate it was appropriate to conduct factor analysis. Four factors were extracted from the variables in the constraints scale, which in total comprised 54.41% of the total variance.

Factor 1 (nine items) was labelled as **individual/psychological constraints** as per Alexandris et al. (1997a). Items that loaded on this factor tended to describe the idiosyncratic reasons that individuals feel inhibit their on-going participation, or lack

[82] Kaiser's (1974) criterion indicates that components are required to have a value of over 1 in the initial Eigen values (in factor analysis) when determining how many factors to extract.

of participation, in physical activity. Items that loaded on this factor included: 'I am not fit enough'; 'I am not skilled enough'; 'I do not feel confident to exercise'; 'I have health problems'; 'I am afraid of getting hurt'; 'I feel too tired to exercise'; 'I do not like exercising in a gym setting'; 'I do not know where to participate'; 'Exercise makes me feel tired'. Examining this factor of constraints more closely, in the current study, factor 1, the individual/psychological constraint was extracted, and was consistent with both the Alexandris et al. (2007) and Alexandris et al. (2003) studies.

Factor 2 loaded on four items and was labelled as **lack of partners**, the items that loaded on this factor relate to people in the participant's social network who are not willing, or do not have the desire, to participate in the activity with the participant. Lack of partners consisted of the following items 'My friends do not like exercising'; 'My friends are not interested in exercising'; 'My friends do not have time to do exercise'; and 'I have nobody to exercise with'. This factor focused more upon friends and family, not training with the customer; who therefore lacks a training partner. This factor was consistent with Alexandris et al. (2007) and Alexandris and Carroll (1997a).

Table 4.4: Factor analysis pattern matrix for the constraints scale

Constraints Scale Items	Factor 1 (Indiv/Psych)	Factor 2 (Lack of Part)	Factor 3 (Lack of Opt)	Factor 4 (Ext oblig)
I am not fit enough	0.864			
I am not skilled enough	0.827			
I do not feel confident enough	0.754			
I have health problems	0.675			
I am afraid of getting hurt	0.543			
I feel too tired to exercise	0.534			
I do not like exercising in a gym setting	0.463			
I do not know where to participate	0.428			
Exercise makes me feel tired	0.390			
My friends do not like exercising		0.996		
My friends are not interested in exercising		0.884		
My friends do not have time to exercise		0.829		
I have nobody to exercise with		0.623		
I do not have transportation			0.700	
I cannot afford the membership any longer			0.634	
I do not know where I can learn the activities I like			0.613	
I do not have anyone to teach me activities I like			0.602	
I have no opportunities to exercise near my home			0.580	
I am not interested in exercising			0.563	
I do not like doing exercise			0.562	
Transportation takes too much time			0.520	
I participated in classes in the past and I did not like it			0.485	
I do not have time because of social commitments				0.661
I do not have time because of family commitments				0.657
I do not want to interrupt my daily schedule				0.492
The group fitness timetable does not fit with my own schedule				0.480

Principal Axis, Direct Oblimin Rotation

Number of factors extracted: 4; Total Variance explained: 54.41%

Eigen value: Factor 1 = 8.10; Factor 2 = 2.63; Factor 3 = 2.02; Factor 4 = 1.950.

Percent of variance: Factor 1= 29.99%; Factor 2 = 9.74%; Factor 3 = 7.46%; Factor 4 = 7.22%.

KMO Measure of Sampling Adequacy = 0.853; Bartlett's Test of Sphericity: χ = 4100.32; df = 351; p = <0.001

The **third factor** (nine items) was labelled **lack of alternative options** consisting of total costs ('Transportation takes too much time'; 'I do not have transportation'; 'I cannot afford the membership any longer'); lack of opportunities available (items 'I do not know where I can learn the activities I like'; 'I do not have anyone to teach me activities I like'; 'I have no opportunities to exercise near my home'). Loss of interest (items 'I am not interested in exercising'; 'I do not like doing exercise'; 'I participated in classes in the past and I did not like it'). Factor 3, lack of alternative options indicates customers may continue to participate in classes with which they aren't wholly satisfied because of a lack of opportunities available to them (items 'I do not know where I can learn the activities I like'; and 'I do not have anyone to teach me activities I like'; 'I have no opportunities to exercise near my home'). As a result of the habitual nature of fitness services, like group fitness classes (Chang & Chelladuri, 2003; Lehtinen & Lehtinen, 1991; Schneider & Bowen, 1995), customers may lose interest in classes offered at their current centre (items 'I am not interested in exercising'; 'I do not like doing exercise').

For customers constrained by lack of alternative options, they may try other classes in their centre, even perhaps trying other health and fitness providers, but may not have been interested in them either (items 'I participated in classes in the past and I did not like it'). This could be due to the limited number of Les Mills classes on offer (body attack, step, balance, combat, and RPM etc.) in Australia and New Zealand. Therefore, individuals who specialise in certain types of programs may start to lack stimulation, as well as being burdened by the heavy cost involved in participation. This relates to the total cost of participation (transportation in terms of petrol or public transport and membership fees) which for many customers may stretch budgets, constraining participation. Gratton and Taylor (1995) argue the total cost for sport participation includes entrance charges to facilities, travel costs, costs of subscription fees, costs of clothing and membership or subscription fees, all of which need to be considered as contributing to the diminution of participation over time, or a failure to take up fitness centre membership.

When considering lack of alternative options, it has been a common occurrence in studies that knowledge, opportunity, costs, transportation and access emerge together.

For example, Jackson (1993) assessed how combinations of constraints relate to one another, and found these dimensions constitute a common core of leisure constraints regardless of the nature of the sample or specifics of a study. This was evident in the current study as a lack of alternative options was related to a combination of constraints. Humbert et al. (2006) refer to a similar combination of constraints as environmental, which included proximity, cost, facilities and safety.

Lack of alternative options when compared to factors extracted in other studies by Alexandris et al. (2007), Alexandris et al. (2003) and Alexandris et al. (1997a) show they extracted four or seven factors. Therefore, it can be argued there was as much divergence as there was similarity in the factor structure of constraints (Jackson, 1993). Therefore extracting lack of alternative options may not only be attributable to the context and sample studied, but reflect instead the interaction between constraints because of the context or sample studied. This observation adds support to the argument that combinations of constraints may occur in certain contexts, supporting the factor in the current study of a lack of alternative options, which is made up of cost, opportunity and interest.

Interest[83] in the current sample has been influenced by cost and lack of opportunity, suggesting interest is not determined by subjective evaluation, but by external constraints, a similar argument to that of Hawkins et al. (1999). Therefore, interest as represented by lack of alternative options was shaped by structural constraints, such as loss of control over participants' freedom to do what they wanted to do, which may have been governed in this instance by how much cost and opportunity were available in their environment.

Finally, **factor four** (four items) was labelled **external obligations** as it related to constraints individuals experienced due to other commitments involving family,

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[83] There has been difficulty in categorising constraints within intrapersonal and structural constraints (Carroll & Alexandris, 1997). Interest was found to be experienced personally and therefore considered an intrapersonal constraint in Carroll and Alexandris (1997). However, the argument proposed in the current thesis was supported by a combination of constraints (Jackson, 1993) indicating interest in the current sample was related to structural constraints. This was also supported by a similar claim proposed by Hawkins et al. (1999) who found when control was taken away from participants (as with adults with mental retardation) structural and interpersonal constraints were more proximal to leisure interests than intrapersonal constraints. Similarly, participants in the current sample seemed to be governed by cost and lack of opportunity (taking control away from a person) shaping interest, interest for this sample may therefore be experienced structurally.

friends or other significant aspects or responsibilities of their life. The following items loaded on this factor: 'I do not have time because of my social commitments'; 'I do not have time because of my family commitments'; 'I do not want to interrupt my daily schedule'; 'The group fitness timetable does not fit with my own schedule'; and 'My work commitments allow me the time to participate'[84]. External obligations as a factor of constraints from the findings of the current thesis are consistent with the lack-of-time factor proposed by Alexandris and Carroll (1997a). However, there is an argument that the items that load on this factor are broader than simply time, and may also relate to the prioritisation of life commitments. For example, Kyle and Mowen (2003), employing a similar scale of constraints to participation at metropolitan parks in Cleveland, did not use the label lack-of-time for this factor, instead opting to refer to the factor as 'other priorities'.

Likewise, in the current study, the fourth constraints factor not only includes time related issues but also a potential range of other obligations that may relate to work, social and family obligations.

Each of the factors extracted during the current research were then employed as sub-scales in further analysis as per the approach taken for the service quality scale. To assess the reliability of each sub-scale, Cronbach's alpha was conducted. Cronbach's alpha of 0.865 for individual/psychological, 0.915 for lack of partners, and 0.849 for lack of alternative options, all indicated that these three scales showed good internal consistency (Sekeran, 2000).

However, external obligations received a less acceptable figure of 0.432. The scale was checked for individual items that could have poor reliability, and the effect on reliability by the removal of scale items was tested. The item 'My work commitments allow me the time to participate' was removed due to poor loadings. After this item was removed, the Cronbach's alpha was found to be 0.702, suggesting this scale now showed acceptable internal consistency (Sekeran, 2000). This was similar to the Cronbach's value reported by Alexandris et al. (2001a) assessing the leisure constraints scale, who found Cronbach's alpha values ranging from 0.65 to 0.89.

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[84] This item was removed after assessing the reliability of this sub-scale, as discussed later.

Traditionally, three types of constraint have been identified in leisure constraints literature. These consist of intrapersonal, interpersonal and structural constraints (Alexandris, Zahariadis, Tsorbatzoudis, & Grouios, 2002b; Carroll & Alexandris, 1997; Jackson et al., 1993). These four factors extracted in the current study can be classified into structural constraints (external obligations, and lack of alternative options), interpersonal constraints (lack of partners), and intrapersonal constraints (individual/psychological constraints), a grouping which is supported in past research (Alexandris & Carroll 1997a; Alexandris et al., 2001).

4.2.4 Social Physique Anxiety (SPA)

Table 4.5 outlines the results for the factor analysis conducted on the SPA scale. Principal axis extraction with oblique rotation was undertaken.

Table 4.5: Factor analysis pattern matrix for the Social Physique Anxiety scale

Social physique anxiety Scale Items	Factor 1 (NPI)	Factor 2 (PA)
In the presence of others I feel apprehensive about my physique/figure	0.906	
Unattractive features of my physique/figure make me feel nervous in group fitness classes	0.866	
When I am dressed for the gym, I often feel nervous about the shape of my body	0.741	
There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively	0.655	
I am a shy person in the class when it comes to displaying my physique /figure to others	0.626	
I wish I wasn't so uptight about my physique/figure	0.446	
It would make me uncomfortable to know others were evaluating my physique in the class	0.446	
When I look in the mirror, I feel good about my physique/figure		-0.851
I am comfortable with the appearance of my physique/figure		-0.841
I am comfortable with how fit my body appears to others in class		-0.656
I would not worry about clothes that make me look thin or overweight		-0.656

Principal Axis, Direct Oblimin Rotation
Number of factors extracted: 2; Total Variance explained: 57.26%
Eigen value: Factor 1 = 5.24; Factor 2 = 1.63.
Percent of variance: Factor 1= 43.69%; Factor 2 = 13.57%.

KMO Measure of Sampling Adequacy = 0.860; Bartlett's Test of Sphericity: χ=1532.75; df = 66; p = <0.001.

Two factors were extracted (Table 4.5), explaining 57.26% of the total variance in the scale. KMO figures (0.860) and Bartlett's Test of Sphericity figures suggests that factor analysis was appropriate for the scale. Items that loaded on **factor 1** included; 'In the presence of others I feel apprehensive about my physique/figure in the class'; 'Unattractive features of my physique/figure make me nervous about the shape of my body'; 'There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively'; 'I am a shy person in the class when it comes to displaying my physique/figures to others'; 'I wish I wasn't so uptight about my physique/figure'; and 'It would make me uncomfortable to know others were evaluating my physique/figure in the class'. These items that loaded on factor 1 were related to a perceived and internalised negative evaluation of one's physique. Consequently, factor 1 was labelled **negative physique internalisation (NPI)** (7 items).

The **second factor** was labelled **physique affirmation** (PA) as the items that loaded on this factor related to the level of comfort with one's physique when expressed or affirmed through social interaction (i.e. the group fitness class setting). Physique affirmation (four items) consisted of the following items: 'When I look in the mirror, I feel good about my physique/figure'; 'I am comfortable with the appearance of my physique/figure'; 'I am comfortable with how fit my body appears to others in the class'; and 'I would never worry about wearing clothes that make me look too thin or overweight'.

The two factors were employed as sub-scales in further analysis. To assess the reliability of each of the sub-scales for SPA, Cronbach's alpha was conducted. The Cronbach's alpha for negative physique internalisation was 0.851. However, the Cronbach's alpha for physique affirmation was shown to improve with the removal of the item 'I usually feel relaxed when it is obvious others are looking at my physique/figure'. With this item removed, the internal consistency for physique affirmation went from poor internal consistency (0.417) to good internal consistency (0.799). In summary, both negative physique internalisation and physique affirmation had good internal consistency (Sekeran, 2000).

It was important to compare the current factors physique affirmation and negative physique internalisation with those described in previous research findings. The two factors of the current study are consistent with the findings presented by Eklund et al. (1996) which they term physique presentation comfort (being comfortable with the appearance of one's physique) and the second dimension represented expectations of negative physique evaluation (perceiving one's physique would be evaluated negatively).

SPA as a two dimensional structure is consistent with Petrie et al. (1996), McAuley et al. (1993) and Isogai et al. (2001). Although these studies have found SPA to consist of a two-factor structure, there is little or no evidence indicating what these two factors actually represent. The current study explored in detail the concept of SPA as a two factor model. SPA as a two factor model is particularly unusual since it consists of both motivating and inhibiting divisions. While physique affirmation may seem like a motivator and not a constraint, negative physique internalisation is a constraint that could potentially inhibit a behaviour, which becomes both an interesting paradox and challenge to explain. Therefore, in terms of the present research, physique affirmation and negative physique internalisation were considered two distinct ways of perceiving the self, but remain related. Identity theory (McCall & Simmons, 1966; Haggard & Williams, 1992) describes the private self (people rarely disclose) and public self (a strong need to express oneself in front of a social audience) as outlined in Chapter 2, and will now be employed to explain the two SPA factors physique affirmation, and negative physique internalisation, extracted in this study. Building on identity theory (McCall & Simmons, 1966; Haggard & Williams, 1992) a conceptual argument is posed relating identity theory to what the current thesis coins the dialectic nature of SPA. The conceptualised dialectic nature of SPA comes from a late edition of Plato's (1969) interpretations of Socrates which described dialectic as two contrasting views that are presented to persuade the other. This notion can be used to represent the two factors of SPA extracted in the current study. The dialectic nature of SPA indicates that people want to affirm their physique in the presence of others as well as hide it away (this is representative of physique affirmation and negative physique internalisation). Therefore, two opposing thoughts may be in continual conflict, a need to express one's physique to others which may be expressed to a

social audience such as wearing tight clothing to group fitness classes (representing physique affirmation), accordingly emphasising one's physique to others (Hart & Gill 1993). However, this behaviour is in conflict with choosing for one's physique not to be evaluated (due to the risk of negative evaluation) which may be expressed by wearing looser fitting clothing to cover up and hide one's physique (representing negative physique internalisation). Other examples may be selecting specific classes that can emphasise physique expression (physique affirmation) or de-emphasise physique evaluation (negative physique internalisation). This dialectic nature of SPA suggests in group fitness classes a person may both strive to affirm their physique but also strive to hide their physique from negative evaluation.

4.2.5 Involvement

Table 4.6 shows the factor analysis using principal axis extraction with oblique rotation with four factors extracted.

Table 4.6: Factor analysis pattern matrix for the involvement scale

Involvement Scale Items	Factor 1 (Attraction)	Factor 2 (Risk)	Factor 3 (Centrality)	Factor 4 (Sign value)
For me working out is a pleasure	0.897			
I can say that working out interests me a lot	0.795			
I attach great importance to working out	0.740			
Choosing between centres, I feel a bit at a loss		0.749		
I never really know if it is the right choice of centre		0.701		
It is rather complicated to choose a centre to work out		0.625		
I can't imagine my life without working out			-0.731	
When I work out it totally absorbs me			-0.697	
It would be too costly for me to stop working out now			-.0574	
I find that working out dictates and directs my life outside of actually the activity itself			-0.550	
Where I work out gives a glimpse of the person I am				0.860
Where you work out tells people something about you				0.613

Principal Axis, Direct Oblimin Rotation.
Number of factors extracted: 4; Total Variance explained: 57.51%.
Eigen value: Factor 1 = 5.55; Factor 2 = 2.56; Factor 3 = 1.67; Factor 4 = 1.15.
Percent of variance: Factor 1= 29.2%, Factor 2 = 13.5%, Factor 3 = 8.8%, Factor 4 = 6.1%.

KMO Measure of Sampling Adequacy = 0.853; Bartlett's Test of Sphericity: χ = 2121.995; df = 171; p = <0.001.

Four factors explained 57.51% of the total variance in the model (Table 4.6). A KMO figure of 0.853 and a significant Bartlett's Test of Sphericity figure indicate it is appropriate to proceed with factor analysis on this scale. Factor 1 (four items) labelled attraction, factor 2 (three items) labelled risk, factor 3 (four items) labelled centrality and lastly factor 4 (two items) labelled sign value.

Assessing these factors in more detail, **factor 1** was labelled **attraction** because it contained items relating to both importance and pleasure derived through enduring involvement that load on this single factor. Likewise, these items have loaded together in previous studies also labelling it attraction (Alexandris et al., 2008; McIntyre, 1989). However, in the current study, attraction originally included six items, 'For me working out is a pleasure'; 'I can say that working out interests me a lot'; 'I attach great importance to working out'; 'I gain personal pleasure by working out'; 'When I work out, it's like giving a gift to myself'; 'Working out is an activity that leaves me indifferent'. Although two items of attraction cross-loaded with each other, these were 'I gain personal pleasure by working out' and 'When I work out, it's like giving a gift to myself'. This split occurred between factor 1 and 3 and therefore both were removed from further analysis, leaving the remaining four items to measure attraction[85]. The two factors of importance and pleasure loaded onto a single factor labelled attraction in the current study, which supports McIntyre and Pigram, (1992) who showed importance and pleasure loaded onto a single factor called attraction. Therefore, in the current research, the attraction factor of involvement was consistent to general leisure contexts. This tends to suggest that individuals choose to participate in activities like group fitness classes based not only on the importance of the activity but also the pleasure it brings to their lives. Therefore, attraction adds meaning to why some individuals tend to choose to participate and others may not. From a retention point of view, it would also suggest why some individuals who do not derive importance or pleasure from the activity, subsequently defect from the activity.

[85] One item was removed (leaving 3 items remaining) after assessing the reliability of this sub-scale, as discussed later.

In comparison, **factor 2, risk,** consisted of items related to a potential 'loss' that might occur through a given choice or decision. The following items loading on this factor have been labelled risk in previous studies within sports and leisure (Murray, 2000). For example, risk (3 items) consisted of: 'When faced with choosing between health and fitness centres, I always feel a bit at a loss to make the right decision'; 'Whenever I work out, I never really know if it is the right choice of health and fitness centre'; and 'It is rather complicated to choose a health and fitness centre to work out at'. The risk factor is consistent with Murray's (2000) research. However, both risk consequence and risk probability were identified in Laurent and Kapferer's (1985) original research, which found a single risk factor, which is consistent with the findings of the current study. It was only in later research on involvement that both risk probability and risk consequence were extracted as separate factors (Laurent & Kapferer, 1986). The findings of the current study indicated that dismissing the risk profile from the health and fitness context would hinder future research in this field, an argument in opposition to that of Brannan et al. (1992) and Cheron et al. (1982).

These authors argue that a single context is associated with many risk sources, making it hard to study the risk construct. Findings reported in this thesis, however, demonstrate that specific contexts can elicit quite specific risk sources. For example, the health and fitness context is a unique environment to most other service contexts. This is highlighted by Havitz et al. (1990, p.183) who state that, 'recreational activities that affect an individual's appearance…, allow for public demonstration of skills…, or demonstrate belonging to a group…, would be expected to elicit high sign value'. They point out that certain involvement profiles will be more salient in certain contexts. It could further be argued that context plays a key role in group fitness classes. Therefore, the very nature of belonging to a group fitness class may create a context whereby some specific risk profiles are more salient than others. In-turn, specific risk sources (psychological and social) are more likely to be triggered given this unique context.

Factor 3, centrality, originally consisted of five items 'I can't imagine my life without working out'; 'When I work out it totally absorbs me'; 'It would be too costly

for me to stop working out now'; 'I find that working out dictates and directs my life outside of actually the activity itself'; and 'You can tell a lot about a person by whether he/she works out'. However, 'You can tell a lot about a person by whether he/she works out' cross-loaded between factors 3 and 4 and were removed from further analysis, leaving four items which were used to measure centrality. Factor 3 showed items that related to the significance that working-out had in a participant's life and is consistent with literature on centrality in the leisure field, such as in recreational activities like skiing and Metroparks (Murray, 2000; Alexandris et al., 2008; Kyle & Mowen, 2003). Therefore, in the current study centrality was shown to be a salient factor consistent with previous findings (McIntyre, 1989: Havitz et al., 1997). Furthermore, the centrality factor was also consistent with Murray's (2000) research of an Australian health and fitness context. One reason for this could be because centrality has performed well in adventure and risk recreation settings (McIntyre, 1989). It is also possible that group fitness classes are similar to adventure and risk recreation due to the physical, psychological and social benefits attained from participation that may be related to centrality.

Sign value consisted of two items: 'Where I work out gives me a glimpse of the type of person I am'; and 'Where you work out tells people something about you'. **Factor 4** was labelled sign value as the items loading on this factor related to the symbolic nature of participation, that is, what people want others to think about them because of their participation. The items that loaded upon this factor were consistent with those found in other studies that have examined involvement in sports and leisure centres (Murray, 2000). Low levels of sign value have been shown to exist in many contexts (Dimanche et al., 1991; Havitz & Howard 1995). However, the current finding highlights that this is a particularly salient factor within a private health and fitness context. This confirms research suggesting people participate to symbolise their ideal selves to others (Haggard & Williams, 1992). The current research supported Havitz et al. (1994) who argue health and fitness customers tend to participate for symbolic reasons. Traditionally the sign value has been associated with the fiscal status of participants. Sign value in the context of group fitness classes, for example, highlights the need of individuals to express certain characteristics that may

otherwise remain undisclosed. Group fitness classes could be a vehicle for expressing neglected areas of their self-concept, which may not be expressed in other areas of their lives. This is very similar to the alternative view of the dialectic nature of SPA, presented earlier in this chapter.

Physique affirmation and negative physique internalisation occur simultaneously and may cause internal conflict. In other words, an individual may want to partake in classes to affirm and express certain positive attributes of their physique, yet the very nature of placing themselves in this context may actually affirm their worst fears (internalising that their physique is being viewed negatively). Therefore, negative physique internalisation in SPA could be viewed as a risk source that is specific to physique evaluation.

Similarly, physique affirmation could be viewed as similar to sign value, but instead of being symbolic of fiscal status, it is symbolic of one's need to affirm/confirm one's physique within a group. There is ample evidence to support this argument. Social comparison theory (Festinger, 1954) is a concept related to SPA and the sign value and the risk factors in involvement.

In summary, four factors were extracted and interpreted as: attraction, risk, centrality and sign value. The four four factors were then assessed for internal consistency. The following figures were drawn from the reliability assessment; the figure recorded for attraction showed a Cronbach's alpha of 0.764. However, the item 'Working out is an activity that leaves me indifferent' was taken out due to poor loadings, and reliability was shown to increase when this item were removed. After this item was removed, the Cronbach's alpha was found to be 0.874, therefore showing good internal consistency. This dropped slightly with risk which showed a Cronbach's alpha of 0.731, whereas centrality had the second highest Cronbach's alpha of 0.781 for the involvement sub-scales. In contrast sign value had the lowest Cronbach's alpha of 0.729.

4.2.6 Loyalty

Following the approaches of all previous scales (service quality, involvement, constraints scales), the same principle axis extraction, with oblique rotation was performed for the loyalty scale. Results recorded in Table 4.7 indicate that two factors were extracted from the analysis, explaining a total of 76.15% of the variance. The table shows that the KMO (0.876) and Bartlett's test ($p < 0.001$) indicated that factor analysis could proceed. The two factors were employed as two independent sub-scales for the measurement of loyalty, creating overall scales for attitudinal and conative loyalty[86]. Attitudinal loyalty loaded on items that related predominately to an underlying psychological attachment or attitudinal preference for the centre.

Table 4.7: Factor analysis pattern matrix for the loyalty scale

Loyalty Scale Items	Factor 1 (Attitudinal)	Factor 2 (Conative)
I am very attached to this centre	0.906	
I enjoy working out at this centre more than any other	0.780	
It would be difficult to change my beliefs about this	0.756	
Even if close friends recommend I would not change my preference for this centre	0.733	
I would not easily change my selection of this centre	0.693	
This centre means a lot to me	0.672	
I would recommend this centre to people who seek my		-0.998
I would tell other people positive things about this centre		-0.967
I would recommend this centre to my friends		-0.826

Principal Axis, Direct Oblimin Rotation
Number of factors extracted: 2; Total Variance explained: 76.15%
Eigen value: Factor 1 = 5.66; Factor 2 = 1.19.
Percent of variance: Factor 1= 62.93%, Factor 2 = 13.22%.

KMO Measure of Sampling Adequacy = 0.876; Bartlett's Test of Sphericity: χ = 2307.05; df = 36; p = < 0.001.

[86] The items loaded negatively on the conative component of loyalty. This indicates that participants responded negatively towards recommending the centre to friends, family and significant others. This finding was unexpected, and may be explained by the type of sample assessed; group fitness customers. This suggests that there is something unique about group fitness customers, whereby they respond negatively towards conative items, potentially adding support that constraints are operating within this sample. Customers may not wish for significant others to attend the group fitness class, as these may be the very individuals that they try to get away from (external obligations) or who they feel are critical of their physique (NPI).

Attitudinal loyalty consisted of six items: 'I am very attached to this centre'; 'Even if close friends recommend another place, I would not change my preference for this centre'; 'I would not easily change my selection of this centre as a recreation site'; 'I enjoy working out at this centre more than any other place'; 'It would be difficult to change my beliefs about this centre'; and finally 'This centre means a lot to me'.

In comparison, the second factor, conative loyalty, related to advocacy behaviours. Items loading on this factor related to recommendation and positive word-of-mouth advocacy, with items consisting of 'I would recommend this centre to my friends' 'I would tell other people positive things about this centre'; and 'I would recommend this centre to people who seek my advice'.

Assessment of Cronbach's alpha to determine the internal consistency of the two factors showed both factors indicated extremely high levels of internal consistency, with attitudinal loyalty recording a Cronbach's alpha of 0.900 and conative loyalty 0.966.

In research on destination loyalty, Lee et al. (2007) showed three stages of loyalty consisting of attitudinal, conative and behavioural. For the current study, the formation of loyalty was dependent on these three phases of loyalty being confirmed. The current research extracted both attitudinal loyalty and conative loyalty, supporting Lee et al's. (2007) extension of Oliver's (1999) conceptualisation of loyalty. However, the current research changed the behavioural measure of loyalty to include intensity of participation, frequency of visitation and duration of visitation. This was not consistent with the practice of Lee et al's. (2007) study as they employed a measure that is considered less reliable and likely to increase response rate error[87]. The measures that were used, however, were consistent with the behaviourial loyalty measure of Park (1996).

Measuring intensity of participation, frequency of visitation and duration of visitation enabled the behavioural measure to be broken down into its constituent parts[88]. This

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[87] Lee et al. (2007) used a behavioural measure that required participants to recollect over a period of a year, how many days they spent at the site.

[88] The three measures of behavioural loyalty used in the current thesis.

may be seen as an added benefit to Oliver's (1997) conceptualisation, as these three measures of behavioural loyalty provided the current study with a more detailed explanation than just a measure of frequency of visitation employed by lee et al. (2007).

4.3 Service quality-loyalty

RQ1: What is the full nature of the relationship between service quality and loyalty in health and fitness centres?

In order to assess service quality as a predictor of loyalty, the three separate service quality attributes of physical environment quality[89], outcome quality and staff interaction quality were entered as the independent variable's (IV's) as per Alexandris et al. (2006). The dependent variable (DV) consisted of loyalty and each of the loyalty measures were entered separately as the dependent variables in a way that meant that attitudinal loyalty, conative and behavioural loyalty were entered separately.

H1A: *All three of service quality factors (physical environment quality, outcome quality and staff interaction quality) will positively predict both attitudinal and conative loyalty.*

All three measures of service quality were significant predictors of attitudinal loyalty (physical environment quality $\beta = 0.244$, $p < 0.001$, outcome quality $\beta = 0.219$, $p < 0.001$, staff interaction quality $\beta = 0.264$, $p < 0.001$). The hierarchical linear regression examining the effect of service quality upon loyalty showed all three factors were significant predictors, explaining 29.9% of the variance in attitudinal loyalty (Table 4.8), and, as a direct measure of attitudinal loyalty, a large amount of variance was explained, indicating that hypothesis H1A was supported. Interestingly, staff interaction quality made the most independent contribution to attitudinal loyalty, indicating that the relationship between the customer and staff member contributed to attitudinal loyalty.

[89] It is important to note that although the relationships are not significant, physical environment quality appears to exert a negative effect with both intensity of participation (Table 4.10) and frequency of visitation (Table 4.11) and may be useful for future research to consider in more detail.

Table 4.8: Service quality predicting attitudinal loyalty

	R	R^2	F	P			
Overall model	0.547	0.299	38.694	<0.001			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Physical environment	0.282	0.067	0.244	4.209	<0.001	0.767	1.303
Outcome	0.437	0.107	0.219	4.067	<0.001	0.888	1.126
Staff interaction	0.392	0.089	0.264	4.394	<0.001	0.716	1.397

NS = Non-significant

Similarly, all three factors of service quality significantly predicted conative loyalty (physical environment quality ($\beta = 0.414$, $p < 0.001$, outcome quality $\beta = 0.129$ $p < 0.05$, staff interaction quality $\beta = 0.217$ $p < 0.001$), which together explained 36.2% of the overall variance in conative loyalty (Table 4.9) [90]. This indicates that as a measure of conative loyalty, a large amount of variance can be explained by service quality attributes, indicating that H1A is supported. Physical environment quality made the most independent contribution to explaining conative loyalty..

Table 4.9: Service quality predicting conative loyalty

	R	R^2	F	P			
Overall model	**0.602**	**0.362**	**51.538**	**<0.001**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Physical environment	0.421	0.056	0.414	7.498	<0.001	0.767	1.303
Outcome	0.226	0.090	0.129	2.511	<0.05	0.888	1.126
Staff interaction	0.283	0.075	0.217	3.787	<0.001	0.716	1.397

NS = Non-significant

[90] It is important to note that the multicollineraity diagnostic Tolerance (which is the amount of variance in an independent variable which is not explained by other independent variables) and Variance Inflation Factor (VIF) (measures how much the variance of the regression coefficients is inflated by multicollineraity) reported in the subsequent tables of the current thesis indicate that all the factors do not present a problem with multicollineraity, with figures close to 1 for tolerance and less than 10 for the VIF. Therefore, both Tol and VIF will not be discussed.

Physical environment, outcome quality and staff interaction quality influence attitudinal loyalty and conative loyalty.

H1B: *Outcome quality will predict all three measures of behavioural loyalty (intensity, frequency and duration).*

H1C: *Physical environment quality will predict both frequency and duration of visitation.*

Tables 4.10 and 4.11 show outcome quality was the only factor of service quality to significantly predict the behavioural measures of both intensity of participation (β = 0.191, $p < 0.05$) and frequency of visitation (β = -0.272, $p < 0.001$). In contrast, neither physical environment quality nor staff interaction quality predicted the behavioural loyalty measure for either intensity of participation or frequency of visitation. Service quality explained 3.5% of the overall variance in intensity of participation and 7.6% of the variance in frequency of visitation. H1B is supported, as only outcome quality influenced intensity of participation and frequency of visitation.

Interestingly, H1C is not supported in relation to the specific prediction between physical environment quality and frequency of visitation; therefore, physical environment quality does not seem to influence the amount of times a person visits a centre. The findings indicate that outcome quality is the most powerful service quality factor in predicting intensity of participation. This is a highly notable finding because it infers that outcome quality is a main reason participants work out at a more intense level, visit the centre more frequently and stay for longer. This suggests that a service should make outcome a central focus in retention strategies (Tables 4.10, 4.11 and 4.12).

Table 4.10: Service quality predicting intensity

	R	**R^2**	**F**	**P**			
Overall model	**0.188**	**0.35**	**3.361**	**<0.01**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Physical environment	-0.038	0.037	-.0070	-1.030	NS	0.767	1.303
Outcome	0.179	0.059	0.191	3.033	<0.05	0.888	1.126
Staff interaction	-0.003	0.049	-0.004	-0.059	NS	0.716	1.397

NS = Non-significant

Table 4.11: Service quality predicting frequency

	R	R^2	F	P			
Overall model	0.275	0.076	7.510	<0.001			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Physical environment	-0.171	0.090	-0.126	2.259	NS	0.767	1.303
Outcome	0.635	0.144	0.272	2.825	<0.001	0.888	1.126
Staff interaction	0.013	0.120	0.008	-0.262	NS	0.716	1.397

NS = Non-significant

Table 4.12 shows that service quality factors, physical environment quality ($\beta = 0.151$ $p < 0.05$) and outcome quality ($\beta = 0.175$, $p < 0.05$) predicted duration of visitation. Specifically, turning attention to H1C, although physical environment quality did not predict frequency of visitation, it did in fact influence the amount of time a person spent at the centre. In this instance, H1C is supported, with physical environment quality making a statistically unique contribution to the variance explained within the overall model.

In contrast, outcome quality as a predictor of duration of visitation was the most powerful of any other service quality factor, as it made the most unique contribution to the prediction of duration of visitation (Table 4.12) compared to physical environment; but together both outcome quality and physical environment quality explained 6% of the overall variance in duration of visitation.

Table 4.12: Service quality predicting duration

	R	R^2	F	P			
Overall model	0.245	0.060	5.872	<0.01			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Physical environment	0.087	0.039	0.151	2.259	<0.05	0.767	1.303
Outcome	0.175	0.062	0.175	2.825	<0.05	0.888	1.126
Staff interaction	-0.013	0.051	-0.018	-.0262	NS	0.716	1.397

NS = Non-significant

In summary, the overall variance explained was 3.5% for intensity of participation and for frequency of visitation it was 7.6%, and 6% for duration of visitation. However, outcome quality made the most significant and unique contribution in predicting the range of behavioural loyalty measures. Therefore, components of H1 are satisfied, with outcome quality predicting intensity of participation, frequency of visitation, and duration of visitation; whereas physical environment quality predicts duration of visitation. Of note, there is still a large amount of variance unexplained within intensity of participation, frequency of visitation and duration of visitation which cannot be explained by service quality factors alone.

4.4 Service quality-satisfaction

RQ2: What is the relationship between service quality and satisfaction?

H2: *All three service quality factors (physical environment, outcome quality and staff interaction quality) will positively predict satisfaction.*

As with the other regression previously outlined, a hierarchical linear regression was used to examine the effect of service quality factors consisting of physical environment quality, outcome quality and staff interaction quality. Table 4.13 shows that all three factors of service quality, including physical environment quality ($\beta = 0.449$, $p < 0.001$) outcome quality ($\beta = 0.227$, $p < 0.001$) and staff interaction quality ($\beta = 0.223$, $p < 0.001$), were positively and significantly related to satisfaction. Physical environment quality made by far the most statistically significant contribution to explaining satisfaction ($\beta = 0.449$), indicating that physical environment quality was the most influential factor in in the production of satisfaction with the service provided. The service quality factors together explained a total of 48% of the variance in satisfaction. This supports H2, that all components of service quality are good predictors of satisfaction.

Table 4.13: Service quality predicting satisfaction

	R	R^2	F	P			
Overall model	**0.689**	**0.475**	**83.619**	**<0.001**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Physical environment	0.363	0.040	0.449	9.041	<0.001	0.767	1.303
Outcome	0.317	0.064	0.227	4.916	<0.001	0.888	1.126
Staff interaction	0.232	0.054	0.223	4.331	<0.001	0.716	1.397

4.5 Satisfaction-loyalty

RQ3: What is the relationship between satisfaction and loyalty?

H3: *Satisfaction will positively predict both attitudinal and conative loyalty, but not behavioural loyalty.*

The relationship between satisfaction and loyalty was assessed to determine the link between these two variables in preparation of assessment of the mediated relationship (service quality-satisfaction-loyalty). As outlined previously in Chapter 3, satisfaction was determined in accordance with Alexandris et al. (2004b), who employed and adapted the version from Oliver's (1999) satisfaction scale.

Chapter 3 shows the satisfaction measure was an overall satisfaction measure. Satisfaction was found to predict attitudinal loyalty ($\beta = 0.522$, $p < 0.001$), explaining 27% of the overall variance in attitudinal loyalty. Similarly, satisfaction was found to predict conative loyalty ($\beta = 0.563$, $p < 0.001$), explaining 32% of the overall variance within conative loyalty. Satisfaction predicted the behavioural measure, duration of visitation ($\beta = 0.176$ $p<.05$), explaining 3% of the overall variance; but did not predict either frequency of visitation or intensity of participation, supporting H2 (Table 4.14). Accordingly, there is a strong relationship between satisfaction and loyalty. Of importance to the current study is the next stage, which assessed whether satisfaction mediated the relationship between service quality and loyalty.

Table 4.14: Satisfaction predicting loyalty

	R	R^2	F	P	B	SE b	β	t	P	Tol	VIF
Attitudinal	0.522	0.272	102.871	<0.001	0.745	0.073	0.522	10.143	<0.001	1.000	1.000
Conative	0.563	0.317	127.803	<0.001	0.708	0.063	0.563	11.305	<0.001	1.000	1.000
Intensity	0.049	0.002	0.656	NS	0.033	0.040	0.049	0.810	NS	1.000	1.000
Frequency	0.103	0.011	2.986	NS	0.173	0.100	0.103	1.728	NS	1.000	1.000
Duration	0.176	0.031	8.898	<0.01	0.126	0.042	0.176	2.983	<0.05	1.000	1.000

NS = Non-significant

4.6 Mediating relationship, service quality-satisfaction-loyalty

RQ4: ***Does satisfaction play a mediating role in the relationship between service quality and loyalty?***

H4: *Satisfaction will mediate the relationships between all three service quality factors and both attitudinal and conative loyalty, but not behavioural loyalty.*

The mediated hierarchical regression analysis consisted of entering physical environment quality, outcome quality and staff interaction quality into the regression equation at step 1. Step 2 consisted of the inclusion of satisfaction, with each individual loyalty measure (attitudinal, conative, intensity, frequency & duration) entered as separate regressions as the dependent variables.

Given that regressions could inflate Type 1 errors (Tabachnick & Fidell, 2008), a Sobel (1982) test was selected as the test of mediation since it accurately calculates the mediation effect, taking into account both power and Type 1 errors (McKinnon, Lockwood, Hoffman, West, & Sheets, 2002).

Previously shown in Table 4.8, all three of the service quality measures (physical environment quality, outcome quality and staff interaction quality) had a significant main effect on predicting attitudinal loyalty ($R^2 = 0.299$, $F(3, 272)$, $p < 0.001$). Table 4.15 shows that the addition of satisfaction as a mediator significantly increased the variance explained (R^2 change $= 0.044$, $F(1, 271) = 18.36$, $p < 0.001$).

Table 4.15: Satisfaction as a mediator between service quality and attitudinal loyalty

Attitudinal loyalty		R^2change	F	P		
Change		**0.044**	**18.358**	**<0.001**		
		b	**SE b**	**β**	**t**	**Sobel**
Physical environment	→Satisfaction	1.31	0.074	0.113	1.77	<0.05
Outcome	→Satisfaction	0.305	0.109	0.153	2.81	<0.05
Staff interaction	→Satisfaction	0.296	0.089	0.199	3.31	<0.05

Therefore, there was a significant increment in the variance in attitudinal loyalty due to the inclusion of satisfaction, with an additional 4% of variance being explained. This is considered a noteworthy increase in variance[91]; therefore the inclusion of satisfaction significantly mediated the relationship between the three service quality factors and attitudinal loyalty, which supports H4.

A more detailed examination of the service quality measures indicated that, of the three service quality measures, satisfaction fully mediated only the relationship between physical environment quality and attitudinal loyalty. Mediation was identified from the decrease in the β weight between physical environment quality and attitudinal loyalty (from $\beta = 0.244$ to $\beta = 0.113$) that occurs when satisfaction is added as a mediator to the regression equation. At this point, the relationship between the service quality factor, physical environment quality, and attitudinal loyalty became non-significant ($p > 0.05$), signifying full mediation. In contrast, both outcome quality ($p < 0.01$) and staff interaction quality ($p < 0.001$) predicted attitudinal loyalty after the addition of satisfaction to the equation. However, both were partially mediated by satisfaction, indicated by the decrease in β weight (for outcome quality from $\beta = 0.219$ to $\beta = 0.153$ and for staff interaction quality from $\beta = 0.264$ to $\beta = 0.199$).

[91] Studies such as Abraham and Sheeran (2004), on assessing the decisional process to exercise found that a variable called anticipated regret contributed to a substantial increment of 5% in the variance explained in intention to exercise. Of importance to the current study, the inclusion of satisfaction into the regression equation after controlling for the effect of service quality on conative loyalty indicated satisfaction increased the variance explained within conative loyalty by an additional 4% in the current thesis. This may also be considered a substantial increment of the variance explained in assessing loyalty as per Abraham and Sheeran (2004).

In contrast to full mediation, the main relationship between both outcome quality and staff interaction quality remained significant after the addition of satisfaction to the regression equation. The findings clearly support H4, highlighting the mediated relationship between service quality components and attitudinal loyalty through the intervening variable of satisfaction. The findings indicate that participants will experience high levels of satisfaction when they perceive the service to be superior. In turn high levels of satisfaction may provide preference to the service identified as attitudinal loyalty.

Figures recorded in Table 4.16 show the influence of service quality upon conative loyalty via satisfaction. Satisfaction was a significant mediator between physical environment quality and conative loyalty (Sobel test = 3.23, $p < 0.001$). Likewise, staff interaction quality and conative loyalty were also significantly mediated by satisfaction (Sobel test = 2.29, $p < 0.05$). However, the Sobel (1982) approach shows satisfaction did not mediate the relationship between outcome quality and conative loyalty. The Sobel (1982) test revealed that no mediation at all existed in this relationship (Sobel test = 1.186, $p > 0.05$). This indicates desired levels of physical environment quality and increased contact between customers and staff elicit high levels of satisfaction, which provide both a cognitive and affective attachment to the service as identified through conative loyalty.

Table 4.16: Satisfaction as a mediator between service quality and conative loyalty

Conative loyalty		**R^2change**	**F**	**P**		
Change		**0.043**	**19.789**	**<0.001**		
		b	**SE b**	**β**	**t**	**Sobel**
Physical environment	→Satisfaction	0.290	0.062	0.285	4.69	<0.001
Outcome	→Satisfaction	0.112	0.091	0.064	1.23	NS
Staff interaction	→Satisfaction	0.200	0.075	0.153	2.67	<0.01

NS = Non-significant

Interestingly, why outcome quality and its relationship to conative loyalty are not mediated by satisfaction, it is important to consider mediated regression analysis. Mediated regression analysis indicates mediation between outcome quality and conative loyalty by satisfaction may exist, as per the changes in the significant R^2 change value. This was not, however, demonstrated by the Sobel test, indicating that satisfaction plays no role, or a weak role, in mediating between outcome quality and conative loyalty.

Table 4.16 does show that the addition of satisfaction significantly increased the variance explained (R^2 change = 0.043, $F(1, 271) = 19.79$, $p < 0.001$) to (4%). The influence of both physical environment quality ($p < 0.001$) and staff interaction quality ($p < 0.01$) upon conative loyalty showed that satisfaction was a partial mediator, as indicated by a decrease in β weight. Overall, the findings partially support H4. The relationship between the service quality attributes of physical environment quality and staff interaction quality on conative loyalty were significantly mediated by the intervening variable of satisfaction, but this was not the case for outcome quality.

Table 4.17 shows that H4 is supported, as satisfaction is not an intervening variable between service quality factors and intensity of participation, as identified by the Sobel test. In a closer examination of the main effects within the regression analysis shown in Table 4.10 there appears a direct effect between outcome quality and intensity of participation ($R^2 = 0.35$, $F(3, 275) = 3.261$, $p < 0.05$), but when satisfaction was entered into the regression equation (Table 4.17), the R^2 change indicates that satisfaction as an intervening variable between outcome quality and intensity of participation does not significantly add any additional variance (R^2 change = 0.001, $F(1, 274) = 0.164$, $p > 0.05$). Satisfaction was not therefore a significant mediator in the relationship between service quality and the behavioural loyalty measure, intensity of participation.

Table 4.17: Satisfaction as a mediator between service quality and intensity

Intensity		**R^2change**	**F**	**P**		
Change		**0.001**	**.164**	**NS**		
		b	**SE b**	**β**	**t**	**Sobel**
Physical environment	→ Satisfaction	-0.046	0.042	-0.085	-1.10	NS
Outcome	→ Satisfaction	0.172	0.062	0.183	2.79	NS
Staff interaction	→ Satisfaction	-0.008	0.051	-0.012	-0.159	NS

NS = Non-significant

The relationship between service quality factors, satisfaction and frequency of visitation, was not supported by the Sobel (1982) approach (Table 4.18). Therefore, satisfaction was not a significant mediator between any of the service quality factors and the behavioural loyalty measure of frequency of visitation, ($p > 0.05$) indicating that H4 is supported.

This is also shown within the mediated regression analysis, as there is a main effect in the relationship between outcome quality and frequency of visitation,, ($R^2 = 0.085$, $F(3, 275) = 6.333$, $p<0.001$). However, when satisfaction is entered into the equation, it indicates only partial mediation. This is shown by a decrease in the beta weight The addition of satisfaction did not significantly increase the variance explained (R^2 change = 0.009, $F(3, 274) = 2.66$, $p > 0.05$).

Table 4.18: Satisfaction as a mediator between service quality and frequency

Frequency		**R^2change**	**F**	**P**		
Change		**0.009**	**2.663**	**NS**		
		b	**SE b**	**β**	**t**	**Sobel**
Physical environment	→Satisfaction	-0.251	0.102	-0.185	-2.46	NS
Outcome	→Satisfaction	0.570	0.150	0.242	3.80	NS
Staff interaction	→Satisfaction	-0.038	0.123	-0.021	-0.30	NS

NS = Non-significant

The relationships between the service quality attributes and loyalty measure duration of visitation (Table 4.19) were not mediated by satisfaction as per the Sobel test ($p > 0.05$). This was also demonstrated by the mediated regression analysis. The addition of satisfaction in the regression analysis did not significantly increase the variance explained (R^2 change = 0.001, $F(1, 274) = 0.351$, $p > 0.05$). Therefore, mediation does not exist.There are therefore clear indications that satisfaction does not play a mediating role between the service quality constructs, firstly, physical environment quality, secondly, outcome quality and thirdly, staff interaction quality in predicting duration of visitation; therefore H4 is satisfied.

Table 4.19: Satisfaction as a mediator between service quality and duration

Duration		**R^2change**	**F**	**P**		
Change		**0.001**	**.351**	**NS**		
		b	**SE b**	**β**	**t**	**Sobel**
Physical environment	→Satisfaction	0.075	0.044	0.129	1.70	NS
Outcome	→Satisfaction	0.164	0.065	0.164	2.54	NS
Staff interaction	→Satisfaction	-0.021	0.053	-0.029	-0.40	NS

NS = Non-significant

4.7 Constraints-loyalty

RQ5: ***What is the relationship between constraints people face to their participation in exercise at health and fitness centres and their loyalty to a centre?***

H5A: *Individual/psychological constraint and SPA will negatively predict all measures of loyalty (attitudinal, conative and behavioural).*

The overall model (Table 4.20) in this instance does not reach statistical significance ($p > 0.05$), suggesting the constraints factors together are not statistically significant. This could indicate that some constraints have previously been overcome (perhaps due to the nature of the sample, who are already exercising and have already dealt with and overcome many previous constraints), and therefore no longer exert any influence upon loyalty (or lack of loyalty).

However, to think that once we overcome intrapersonal constraints, we are then sure to be exempt from all other constraints is a fallacy based on a limited appreciation of the true nature of constraints. Therefore, the current study represents an alternative view of the nature of constraints based on the findings of H5A. Life is a continual learning process where we face new challenges on a daily basis, including encountering new constraints or old constraints that take on new forms. Therefore, of interest to the current study was the source of some of the constraints factors, which could still constrain loyalty given the right circumstances.

This alternative perspective is represented by the separate factors of constraints and their standardized beta weights (Table 4.20), indicating that certain factors had made a significant, unique contribution as per their beta weight and significance value (less than 0.05)[92]. This can be seen in the case of NPI (negative physique internalisation), which negatively and significantly predicted attitudinal loyalty ($\beta = -0.147$, $p < 0.05$). This supports the argument that some individual factors continue to operate to constrain behaviour (e.g., negative physique internalisation), even when the model indicates the group of constraints is not significant statistically, suggesting NPI (negative physique internalisation) had not been negotiated.

The second SPA factor PA (physique affirmation) provided a unique contribution in predicting attitudinal loyalty, and was the most statistically powerful predictor of all constraints factors ($\beta = 0.186$).

The non-significant finding of the overall model indicates H5A may not be confirmed, while on the other hand, negative physique internalisation (NPI) made a negatively and statistically significant contribution. This suggests this constraint still operates to constrain attitudinal loyalty.

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[92] All factors will be checked to determine if mediation exists. The reason that these factors will be checked even though the overall regression analysis is non-significant for the most part is that researchers argue that the relationship between the IV and DV is not essential and that the importance lies in the relationship between the IV and the MV and the MV to the DV (Collins, Graham, & Flaherty, 1998).

Given that PA (physique affirmation) made a significant contribution supports the prior argument of the dialectic[93] nature of these two SPA factors. Although this is a conceptual argument based on the factor analysis which found the presence of two factors of SPA exist it can explain s a strong need for physique affirmation and negative physique internalisation.

Table 4.20: Constraints and their influence on attitudinal loyalty

	R	R^2	F	P			
Overall model	**0.195**	**0.038**	**1.749**	**NS**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
(SPA) - PA	0.273	0.108	0.186	2.524	<0.05	0.668	1.496
(SPA) - NPI	-0.215	0.102	-0.147	-2.114	<0.05	0.753	1.328
Individual/psychological	-0.174	0.103	-0.131	-1.692	NS	0.603	1.659
Lack of partners	-0.010	0.075	-0.009	-0.135	NS	0.797	1.255
Lack of alternative options	0.005	0.096	0.004	0.055	NS	0.626	1.597
External obligations	-0.021	0.063	-0.023	-.0340	NS	0.787	1.271

NS = Non-significant

Physique affirmation (PA) provides the most unique contribution in conative loyalty followed by negative physique internalisation (Table 4.21). With both factors, showing that they positively and significantly predicted conative loyalty ($\beta = 0.154$, $p < 0.05$; $\beta = 0.152$, $p < 0.05$, respectively). This indicates that individual/psychological constraints, may in fact be the most difficult to overcome which is reflective of the current findings indicating that all other constraints may have been overcome except for intrapersonal constraints. Findings for H5A can be explained by the argument that was posed earlier in which the nature of SPA should be looked at in a new light, specifically in terms of the dialectic nature of SPA.

[93] The conceptualised dialectic argument proposes that people want to affirm their physique in the presence of others as well as hide it away (this is representative of physique affirmation and negative physique internalisation). Therefore, two opposing thoughts may be in continual conflict, a need to express one's physique to others which may be expressed through wearing tight clothing to the group fitness classes, accordingly emphasising one's physique versus the potential negative appraisal that may result in emphasising one's physique to others, therefore choosing for one's physique not to be evaluated may be expressed by wearing looser fitting clothing to group fitness classes that hides one's physique.

For example, to further support this position, individual/psychological constraints (Table 4.21) and negative physique internalisation (Table 4.20) negatively predict loyalty. In both instances PA (physique affirmation) provides the most statistically significant unique contribution, indicating that as an overall model PA (physique affirmation) may attenuate the effects of the intrapersonal constraint NPI (negative physique internalisation) and individual/psychological constraints.

Table 4.21: Constraints and their influence on conative loyalty

	R	R^2	F	P			
Overall model	**0.162**	**0.026**	**1.189**	**NS**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
(SPA) - PA	0.195	0.096	0.152	2.044	<0.05	0.668	1.496
(SPA) - NPI	-0.054	0.090	-0.042	-0.603	NS	0.753	1.328
Individual/psychological	-0.180	0.091	-0.154	-1.972	<0.05	0.603	1.659
Lack of partners	-0.012	0.066	-0.012	-0.183	NS	0.797	1.255
Lack of alternative options	0.066	0.085	0.059	0.772	NS	0.626	1.597
External obligations	0.039	0.056	0.048	0.704	NS	0.787	1.271

NS = Non-significant

H5B: *Structural constraints, (specifically those related to time constraints or other obligations) will negatively predict the level of intensity* of participation.

The statistically significant contribution was shown by external obligations ($\beta = 0.163$ $p < 0.05$) predicting intensity of participation. The findings indicate the presence of external obligations infers family commitments and other obligations stimulate participants' to exercise more intensely. Lastly, the model as a whole was also significant ($p < 0.05$). H5B is not supported in terms of the direction of this relationship was not supported since the structural constraint external obligations positively influenced intensity as opposed to limiting intensity. If external obligations positively influences intensity, the question still remains, what is the mechanism that explains this relationship?

Likewise, another significant finding was that of individual/psychological constraints negatively predicting intensity of participation, supporting H5A. Table 4.22 shows that the individual/psychological constraint negatively and significantly predicted intensity of participation ($\beta = -0.259$ $p < 0.001$), yet almost all other factors did not have any influence over intensity of participation ($p > 0.05$). This finding indicates that individuals constrained by individual/psychological constraints may participate at a less intense level (as shown by the negative beta weight) due to the potential fear of others viewing them negatively. For example, considering an individual exercising at an intense level, the individual may perspire profusely and start to ease back, because the individual thinks other members in the class may view them as less attractive or unfit. These negative thoughts are likely to be only perceived by the individual preventing the person from reaching intense level of participation. This supports H5A for individual/psychological constraints but does not support the link between all forms of intrapersonal constraint negatively influencing intensity of participation. However, of note to the current thesis is that although a relationship exists, for example between individual/psychological constraints and intensity of participation, an understanding of the mechanism that explains this relationship[94] needs to be assessed.

Table 4.22: Constraints and their influence on intensity

	R	**R^2**	**F**	**P**			
Overall model	**0.244**	**0.059**	**2.818**	**<0.05**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
(SPA) - PA	0.059	0.050	0.085	1.175	NS	0.668	1.496
(SPA) - NPI	-0.025	0.047	-0.037	-0.536	NS	0.753	1.328
Individual/ psychological	-0.162	0.048	-0.259	-3.398	<0.001	0.603	1.659
Lack of partners	0.006	0.035	0.012	0.181	NS	0.797	1.255
Lack of alternative options	-0.002	0.044	-0.004	-0.055	NS	0.626	1.597
External obligations	0.071	0.029	0.163	2.440	<0.05	0.787	1.271

NS = Non-significant

[94] This is why testing mediation is essential (see results for mediated relationships discussed later).

Overall, individual/psychological constraints exert the most power over participation, in this case negatively predicting the level of intensity of participation (Table 4.22). In contrast, the effect of external obligations indicated that they positively influenced participation. How this may occur is still not yet known at this stage of the thesis as once again the reoccurring question is what is the mechanism that explains this relationship? An assessment of involvement factors used in a mediated relationship between constraints and intensity of participation may shed light on this question.

H5C: *Structural constraints (specifically relating to access or financial constraints) will negatively predict frequency of visitation.*

H5D: *Lack of partners will negatively predict how often customers visit a centre.*

Table 4.23 shows lack of partners negatively and significantly predicted frequency of visitation ($\beta = -0.146$, $p<0.05$), whereas having a lack of alternative options (which provided the most unique contribution) positively and significantly predicted frequency of visitation ($\beta = 0.176$, $p < 0.05$). None of the other constraints made any unique contribution in explaining the variance in duration of visitation ($p > 0.05$). The findings indicate lack of partners may be a reason why some participants may attend fewer times per week. In comparison lack of alternative options may inhibit participation. Overall, some constraints such as lack of partners and lack of alternative options stimulate participation, which does not support the direction of effect set out in H5C.

Table 4.23: Constraints and their influence on frequency

	R	**R^2**	**F**	**P**			
Overall model	**0.204**	**0.042**	**1.947**	**NS**			
	b	**SE b**	**β**	**T**	**P**	**Tol**	**VIF**
(SPA) - PA	0.089	0.126	0.052	0.707	NS	0.668	1.496
(SPA) - NPI	-0.162	0.118	-0.095	-1.372	NS	0.753	1.328
Individual/psychological	-0.178	0.120	-0.114	-1.483	NS	0.603	1.659
Lack of partners	-0.190	0.088	-.146	-2.175	<0.05	0.797	1.255
Lack of alternative options	0.260	0.112	0.176	2.325	<0.05	0.626	1.597
External obligations	-0.036	0.073	-0.034	-0.498	NS	0.787	1.271

NS = Non-significant

Table 4.24 shows that none of the constraints factors influenced the amount of time spent within the activity ($p > 0.05$). This is also shown by the fact that none of the constraints factors made a unique contribution. Therefore, this supports the hypotheses H5C and H5D.

Table 4.24: Constraints and their influence on duration

	R	R^2	F	P			
Overall model	**0.115**	**0.013**	**0.602**	**NS**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
(SPA) – PA	0.077	0.054	0.105	1.410	NS	0.668	1.496
(SPA) - NPI	-0.030	0.051	-0.041	-0.586	NS	0.753	1.328
Individual/ psychological	-0.016	0.052	-0.025	-0.314	NS	0.603	1.659
Lack of partners	-0.045	0.038	-0.081	-1.192	NS	0.797	1.255
Lack of alternative options	0.012	0.048	0.019	0.243	NS	0.626	1.597
External obligations	-0.017	0.032	0.037	0.541	NS	0.787	1.271

NS = Non-significant

4.8 Constraints-involvement

RQ6: ***What is the relationship between constraints and involvement?***

H6A: *Higher levels of both individual/psychological constraints and SPA will be related to lower levels of attraction.*

4.8.1 Constraints → Attraction

In Table 4.25 the individual/psychological factor (an intrapersonal constraint) was the only constraint to negatively and significantly predict attraction ($\beta = -0.257$, $p < 0.001$). No other factors, as shown by their beta weights ($p < 0.05$), made any statistically significant contribution to attraction ($p > 0.05$). The model as a whole was significant ($p < 0.05$), with 6% of the overall variance explained. Of the constraints factors, the individual/psychological factor satisfied H6A, as only the individual/psychological constraints factor significantly predicated attraction.

However, of further interest was that negative physique internalisation, also an intrapersonal constraint, did not make a statistically significant, unique contribution to the prediction of attraction. Therefore, H6A is only partially supported. The findings indicate that individual/psychological constraints negatively influence importance/pleasure spent in the activity (attraction).

Table 4.25: Constraints and their influence on attraction

	R	R^2	F	P			
Overall model	**0.241**	**0.058**	**2.763**	**<0.05**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
(SPA) – PA	0.085	0.136	0.046	0.628	NS	0.649	1.540
(SPA) – NPI	-0.158	0.129	-0.087	-1.225	NS	0.690	1.448
Individual/ psychological	-0.444	0.128	-0.257	-3.464	<0.001	0.638	1.568
Lack of partners	0.000	0.092	0.000	0.004	NS	0.794	1.259
Lack of alternative options	0.097	0.117	0.062	0.831	NS	.638	1.568
External obligations	0.046	0.077	0.039	0.593	NS	.821	1.218

NS = Non-significant

4.8.2 Constraints→ Risk

Table 4.26 shows no significant influence of constraints upon risk ($p > 0.05$). However, the overall model was significant, with the factors together explaining 7% of the variance in risk. Therefore, as an overall model, there was a statistically significant effect, but the individual factors did not make a unique contribution. Therefore, the findings indicate that the constraints factors individually do not influence risk. However, it seems a combination of constraints factors together do influence risk.

Table 4.26: Constraints and their influence on risk

	R	R^2	F	P			
Overall model	**0.266**	**0.071**	**3.394**	**<0.01**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
(SPA) - PA	0.024	0.116	0.015	0.204	NS	0.649	1.540
(SPA) - NPI	-0.125	0.111	-0.080	-0.135	NS	0.690	1.448
Individual/ psychological	0.134	0.110	0.090	1.225	NS	0.638	1.568
Lack of partners	0.142	0.079	0.119	1.797	NS	0.794	1.259
Lack of alternative options	0.191	0.100	0.141	1.908	NS	0.638	1.568
External obligations	-0.029	0.066	-0.029	-0.442	NS	0.821	1.218

NS = Non-significant

4.8.3 Constraints→ Sign value

Table 4.27 shows that there was no significant influence made by constraints on risk, as none of the constraints factors had any influence over sign value ($p > 0.05$), indicating support for H6A, that is, specific predictors of constraints only predict specific involvement factors.

Table 4.27: Constraints and their influence on sign value

	R	R^2	F	P			
Overall model	**0.160**	**0.026**	**1.171**	**NS**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
(SPA) - PA	0.149	0.139	0.080	1.073	NS	0.649	1.540
(SPA) - NPI	-0.179	0.132	-0.098	-1.350	NS	0.690	1.448
Individual/psychological	-0.200	0.132	-0.115	-1.520	NS	0.638	1.568
Lack of partners	0.151	0.094	0.108	1.597	NS	0.794	1.259
Lack of alternative options	0.048	0.120	0.030	0.396	NS	0.638	1.568
External obligations	-0.017	0.079	-0.014	-0.211	NS	0.821	1.218

NS = Non-significant

At this juncture of the analysis on the relationship between constraints factors and involvement factors, the findings clearly indicate that only the individual/psychological factor of intrapersonal constraints provided a unique and significant contribution to the prediction of attraction, supporting H6A. However, it was important to determine if intrapersonal constraints, as stated in H6B, would influence centrality.

H6B: *Higher levels of individual/psychological constraints and SPA will negatively predict centrality.*

4.8.4 Constraints→ Centrality

The individual/psychological factor (Table 4.28) was the only constraint to negatively and significantly predict centrality (β = -0.170, $p < 0.001$), explaining 6% of the overall variance. Neither of the other constraints factors had any influence on centrality ($p > 0.05$). This indicates that only individual/psychological constraints negatively influence centrality. If only individual/psychological constraints influence centrality, this subsequently satisfies H6B.

The findings indicate that the direction of effect was negative; consequently individual/psychological constraints limit centrality.

Table 4.28: Constraints and their influence on centrality

	R	**R^2**	**F**	**P**			
Overall model	**0.234**	**0.055**	**2.567**	**<0.05**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
(SPA) - PA	0.154	0.119	0.095	1.288	NS	0.648	1.543
(SPA) - NPI	-0.211	0.113	-0.134	-1.865	NS	0.692	1.445
Individual/psychological	-0.256	0.113	-0.170	2.271	<0.05	.637	1.570
Lack of partners	-0.056	0.081	-0.046	-0.690	NS	0.795	1.257
Lack of alternative options	-0.043	0.103	-0.031	-0.417	NS	0.638	1.568
External obligations	0.025	0.068	0.024	0.363	NS	0.821	1.219

NS = Non-significant

4.9 Involvement-loyalty

RQ7: What is the relationship between involvement and loyalty?

H7A: *Sign value will positively predict both attitudinal and conative loyalty.*

H7B: *Risk will negatively predict both attitudinal and conative loyalty.*

H7C: *Centrality will positively predict attitudinal loyalty.*

Table 4.29 shows that the specific links described in relation to solely attitudinal loyalty in H7A, H7B and H7C are satisfied. Three of the four factors that make up involvement positively and significantly predicted attitudinal loyalty. These consist of sign value ($\beta = 0.215$ $p < 0.001$), risk ($\beta = -0.132$ $p < 0.05$), and centrality ($\beta = 0.294$ $p < 0.001$), demonstrating that three factors were significant predictors of attitudinal loyalty, explaining 21% of the overall variance in attitudinal loyalty. In contrast, attraction was not a significant predictor ($p > 0.05$) of attitudinal loyalty.

Of note was the observation that sign value, risk and centrality made statistically significant contributions ($p < 0.05$). Table 4.29 shows that the factors that contributed the most to variance in the overall model, in order of importance, were: centrality ($\beta = 0.29$), sign value ($\beta = 0.22$) and risk ($\beta = -0.13$). Therefore, sign value, risk and centrality made a significant unique contribution to the overall model.

Table 4.29: Involvement factors predicting attitudinal loyalty

	R	**R^2**	**F**	**P**			
Overall model	**0.453**	**0.205**	**17.429**	**<0.001**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Attraction	0.046	0.051	0.056	0.902	NS	0.759	1.317
Sign value	0.171	0.048	0.215	3.590	<0.001	0.821	1.218
Risk	-0.121	0.051	-0.132	-2.354	<0.05	0.942	1.061
Centrality	0.271	0.060	0.294	0.4544	<0.001	0.703	1.423

NS = Non-significant

Table 4.30 shows that two of the four factors of involvement predicted conative loyalty, these being sign value ($\beta = 0.222$ $p < 0.001$) and risk ($\beta = -0.194$, $p < 0.001$), which explained 8% of the overall variance. H7A and H7B were therefore satisfied, as sign value and risk provided a statistically unique contribution; whereas neither attraction nor centrality predicted conative loyalty ($p > 0.05$). Of note is that sign value made the most statistically significant contribution ($\beta = 0.22$), followed by risk ($\beta = -0.194$).

Table 4.30: Involvement factors predicting conative loyalty

	R	**R^2**	**F**	**P**			
Overall model	**0.283**	**0.080**	**5.896**	**<0.001**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Attraction	0.005	0.048	0.007	0.108	NS	0.759	1.317
Sign value	0.155	0.045	0.222	3.453	<0.001	0.821	1.218
Risk	-0.157	0.049	-0.194	-3.223	<0.001	0.942	1.061
Centrality	0.046	0.056	0.056	0.811	NS	0.703	1.423

NS = Non-significant

The findings indicate that, overall, centrality is a salient factor predicting attitudinal loyalty since centrality influences preference, and therefore choice behaviour. However, sign value and risk predict both attitudinal and conative loyalty. As per Oliver (1997), this may indicate that sign value and risk factors are important to the cognitive and affective stages of loyalty (attitudinal and conative loyalty). Moreover, the findings suggest that participants will exhibit attitudinal loyalty when the service has symbolic relevance, allowing us to understand that participants are exercising for symbolic reasons. Sign value therefore influences both the cognitive and affective elements of loyalty, in this case both attitudinal and conative loyalty.

This stage of loyalty reflects a deep sense of loyalty that goes beyond a preference for classes and links to a deep attachment for group fitness classes. However, consistent with Oliver (1997), persuasion is ever present and is reflective of the risk factor in Table 4.30. Risk was therefore shown to be salient at the conative stage of loyalty, indicating that risk acts to inhibit participation.

H7D: *Attraction will predict intensity of participation and frequency of visitation.*

Tables 4.31 and 4.32 show H7D was satisfied for attraction, which positively and significantly predicted intensity of participation ($\beta = 0.258$, $p<0$ .001) and frequency of visitation ($\beta = 0.235$, $p<0.001$), yet neither sign value, risk or centrality made a unique contribution (less than 0.05) in predicting either intensity of participation or frequency of visitation. An overall 10% of variance was explained in the model.

Table 4.31: Involvement factors predicting intensity

	R	R^2	F	P			
Overall model	**0.318**	**0.101**	**7.666**	**<0.001**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Attraction	0.098	0.025	0.258	3.906	<0.001	0.759	1.317
Sign value	-0.031	0.024	-0.082	-1.298	NS	0.821	1.218
Risk	-0.019	0.026	-0.045	-0.757	NS	0.942	1.061
Centrality	0.049	0.030	0.112	1.634	NS	0.703	1.423

NS = Non-significant

Table 4.32: Involvement factors predicting frequency

	R	R^2	F	P			
Overall model	**0.324**	**0.105**	**7.986**	**<0.001**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Attraction	0.224	0.063	0.235	3.570	<0.001	0.759	1.317
Sign value	0.001	0.059	0.002	0.025	NS	0.821	1.218
Risk	-0.046	0.064	-0.042	-0.718	NS	0.942	1.061
Centrality	0.143	0.074	0.132	1.934	NS	0.703	1.423

NS = Non-significant

The findings supporting H7D indicate that attraction is an important involvement factor in the behavioural stages of loyalty, specifically for intensity of participation and frequency of visitation. Higher levels of importance/pleasure trigger more intense work-outs, as well as more frequent visits to the centre.

The measures of involvement factors (Table 4.33) were non-significant in predicting duration of visitation ($p > 0.05$). Sign value did not make a unique contribution in predicting duration of visitation, supporting H7D. This indicates that the involvement factor, attraction, only influences intensity of participation and frequency of visitation.

Table 4.33: Involvement factors predicting duration

	R	R^2	F	P			
Overall model	**0.173**	**0.030**	**2.102**	**NS**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Attraction	0.045	0.028	0.112	1.633	NS	0.759	1.317
Sign value	0.014	0.026	0.036	0.541	NS	0.821	1.218
Risk	-0.004	0.028	-0.008	-0.132	NS	0.942	1.061
Centrality	0.032	0.033	0.071	0.991	NS	0.703	1.423

NS = Non-significant

4.10 Mediating relationship, constraints-involvement-loyalty.

RQ8: ***Is involvement a mediator between constraints and loyalty?***

H8A: *Sign value and centrality will mediate the relationship between intrapersonal constraints and attitudinal loyalty.*

A mediated hierarchical regression analysis was performed to ascertain the degree to which involvement mediated the relationship between constraints and loyalty (Table 4.34). Intrapersonal constraints were classified as individual/psychological constraints and two separate factors for SPA, PA (physique affirmation) and NPI (negative physique internalisation), were included. Interpersonal constraints consisted of lack of partners, and structural constraints consisted of lack of alternative options and external obligations. The entry of the variable into the equation is supported by the hierarchical model of leisure constraints developed by Crawford et al. (1991),with intrapersonal constraints, interpersonal constraints and structural entered in step 1.

Following individual/psychological constraints, SPA consisting of two factors PA (physique affirmation), and NPI (negative physique internalisation) was entered into the equation. Next, interpersonal constraints operationalised as lack of partners, as per Alexandris and Carroll (1997), were entered. Lastly, lack of alternative options and external obligations (structural constraints) were entered into the equation (Alexandris et al., 1997; Carroll & Alexandris, 1997).

In step 2, the four separate factors of involvement were entered.These influences were assessed by the dependent variables in the analysis, which included three separate behavioural loyalty measures on which three regression analyses were separately run for intensity of participation, frequency of visitation and duration of visitation.

The Sobel (1982) approach to mediation (Table 4.34) indicates that the relationships between PA and attitudinal loyalty were mediated by sign value (Sobel test = 1.637, $p < 0.05$), supporting H8A. The relationship between the intrapersonal constraint NPI (negative physique internalisation) and attitudinal loyalty was mediated by centrality (Sobel test = 1.715, $p< 0.05$).

On closer inspection of the type of mediation that exists, it can be shown that centrality ($\beta= 0.286$, $p < 0.001$) and sign value ($\beta = 0.205$, $p < 0.001$) fully mediated the relationship, not only between NPI (negative physique internalisation) and attitudinal loyalty, but also between PA (physique affirmation) and attitudinal loyalty. This is indicated by a drop in both their β weights, both NPI (negative physique internalisation) and PA (physique affirmation) subsequently becoming non-significant.

The present findings show that the addition of involvement factors (sign value and centrality) significantly increased the variance explained (R^2 change = 0.179, $F(4, 271) = 14.90$, $p < 0.001$). The significant increment due to centrality and sign value accounts for an additional and very notable 18% of the variance explained in attitudinal loyalty.

Overall, sign value and centrality satisfy H8A, in that the relationship between PA (physique affirmation) and attitudinal loyalty was mediated by sign value. Likewise, the relationship between NPI (negative physique internalisation) and attitudinal loyalty was significantly mediated by centrality.

Table 4.34: Involvement as a mediator between constraints and attitudinal loyalty

Attitudinal		R^2change	F	P		
Change		**0.179**	**14.905**	**<0.001**		
		b	**SE b**	**β**	**t**	**Sobel**
(SPA) – PA	→Sign value	0.185	0.099	0.126	1.87	<0.05
(SPA) – NPI	→ Centrality	-0.108	0.094	-0.074	-1.15	<0.05
Individual/psychological		-0.064	0.096	-0.048	-0.666	NS
Lack of partners		0.001	0.069	0.001	0.014	NS
Lack of alternative options		0.028	0.088	0.022	0.319	NS
External obligations		-0.037	0.057	-0.040	-0.644	NS

NS = Non-significant

Table 4.35 shows that the Sobel's (1982) approach to mediation identified the fact that none of the constraints factors, or their relationship with conative loyalty, were significant ($p<0.05$).

However, in an assessment of conative loyalty using regression analysis, PA ($p < 0.001$) and individual/psychological constraints ($p < 0.001$) were both significant predictors of conative loyalty. The addition of involvement factors (sign value and risk) significantly increased the variance explained (R^2 change = 0.073, $F(4, 261) = 5.308$, $p < 0.01$). The significant increment when including sign value and risk accounted for an additional 7.3% of the variance explained in attitudinal loyalty.

It was shown that centrality ($\beta = 0.057$, $p < 0.001$) and sign value ($\beta = 0.214$, $p < 0.001$) fully mediated the relationship, as indicated by the drop in β weight, indicating both individual/psychological constraints and PA (physique affirmation) were no longer significant predictors. Mediation may result from those changes in R^2, but this was not demonstrated by the Sobel test. Although, there are indications that sign value and risk may play a mediating role, this finding was not supported by the Sobel test.

Table 4.35: Involvement as a mediator between constraints and conative loyalty

Conative	R^2change	F	P		
Change	**0.073**	**5.308**	**<0.001**		
	b	**SE b**	**β**	**t**	**Sobel**
(SPA) - PA	0.161	0.093	0.125	1.723	NS
(SPA) - NPI	-0.031	0.089	-0.024	-0.348	NS
Individual/psychological	-0.118	0.090	-0.101	-1.30	NS
Lack of partners	-0.005	0.065	-0.005	-0.082	NS
Lack of alternative options	0.085	0.083	0.077	1.02	NS
External obligations	0.038	0.054	0.047	0.707	NS

NS = Non-significant

It is important at this stage of the thesis to highlight that sign and centrality are significant mediating factors between constraints and attitudinal loyalty. This indicates that the mechanism that explains how individuals negotiate NPI's (negative physique internalisation) negative effect on attitudinal loyalty appears to be centrality (as shown previously by the significant negative relationship between NPI (negative physique internalisation) and attitudinal loyalty, Table 4.34). The results therefore indicate that, although a negative relationship exists between NPI (negative physique internalisation) and attitudinal loyalty, it is how central the activity is in one's life that offsets the influence of the negative effect of NPI (negative physique internalisation) as seen through full mediation.

Corollary H8A1: *Older participants will experience higher levels of intrapersonal constraints than middle aged and younger participants.*

Corollary H8A2: *Women will experience higher levels of intrapersonal constraints than men.*

Corollary H8A3: *There will be a significant interaction effect between age and gender (i.e. older females will experience significantly higher levels of intrapersonal constraints than other participants).*

The following tables highlight the influence of age and gender and the interaction effect of age and gender upon intrapersonal constraints. They provide the descriptive statistics, as well as the univariate analysis of variance.

Table 4.36: Means and standard deviations for NPI

		18-29 years		30-47 years		48+ years	
		Mean	SD	Mean	SD	Mean	SD
Male		5.000	-	3.359	0.832	3.000	0.818
Female		3.417	1.008	3.391	0.797	3.361	0.837
Total		3.575	1.074	3.385	0.799	3.244	0.837

Table 4.37: Two-way ANOVA for NPI by age and gender

	SS	Df	Mean Square	F	P	Post hoc
Age group	4.354	2	2.177	3.210	0.043*	NS
Gender	1.146	1	1.146	1.689	0.195	
Age * gender	3.728	2	1.864	0.067	0.839	
Error	122.8	181	0.678			

* p< 0.05, NS = Non significant

Table 4.38: Means and standard deviations for psychological constraints

		18-29 years		30-47 years		48+ years	
		Mean	SD	Mean	SD	Mean	SD
Male		1.125	-	1.383	0.436	1.127	0.522
Female		1.833	1.086	1.741	0.865	1.803	1.097
Total		1.762	1.048	1.678	0.817	1.632	0.910

Table 4.39: Two-way ANOVA for psychological constraints by age and gender

	SS	Df	Mean Square	F	P
Age group	0.035	2	0.017	0.022	NS
Gender	2.055	1	2.055	2.560	NS
Age * gender	0.282	2	0.141	0.176	NS
Error	144.5	180	0.802		

NS = Non-significant

A two-way ANOVA between groups analysis of variance was conducted to explore the impact of gender and age on levels of intrapersonal constraints, as measured by individual/psychological and NPI (negative physique internalisation). Participants were divided into three groups according to their age (Group 1: 18-29 years; Group 2: 30-47 years; and Group 3: 48 years and above). There was no statistically significant main effect for age or gender in terms of individual/psychological constraints and no interaction effect, indicating that gender does not moderate the relationship between age and individual/psychological constraints (Table 4.39).

However, as shown in Table 4.37 there was a statistically significant main effect for age and NPI [F (2,181) = 3.21, p = 0.043)]. However, the effect size was not notable (eta squared = 0.009)[95]. There was no interaction effect between age, gender and NPI, indicating that gender does not moderate the relationship between age and NPI. The post-hoc comparisons using a Turkey HSD test confirmed that the means were not significantly different between any of the groups. These findings do not support corollary 8A1, 8A2 or 8A3, that predicted that there would be a difference in the effect of age on intrapersonal constraints for males and females.

H8B: *Attraction will mediate the relationships between structural constraints and intensity of participation and frequency of visitation.*

The Sobel (1982) approach to mediation indicated (Table 4.40) that the only relationship was between external obligations and the intensity of participation, which was mediated by attraction (Sobel test = 1.88, $p < 0.05$). Therefore, attraction was the only significant mediator supporting H8B. The results indicate, therefore, that attraction is the mechanism that allows external obligations to act as a motivator to bypass its negative effect (as seen in the positive relationship between external obligations, attraction and intensity of participation).

It is important to note, the addition of involvement to the regression analysis resulted in individual/psychological constraints and external obligations being partially mediated by the attraction factor of involvement. The addition of the involvement

[93] According to Cohen (1988) a small effect would be 0.01. The current study found the effect size was 0.009. Therefore, despite reaching significance the effect size shown in the current study is far below even the 0.01 figure classification which is considered a small effect.

factor, attraction, significantly increased the variance explained by 8% (R^2 change = 0.077, F(4, 264) = 5.91 ($p < 0.001$). Attraction may mediate the relationship between individual/psychological constraints and intensity of participation, as per the R^2 change, but this relationship was not demonstrated by the Sobel test. Therefore, there are indications that attraction may play a mediating role between individual/psychological constraints and intensity of participation, but given the non-significant nature of the Sobel test, attraction does not play a mediating role between individual/psychological constraints and intensity of participation.

Table 4.40: Involvement as a mediator between constraints and intensity

Intensity		**R^2change**	**F**	**P**		
Change		**0.077**	**5.905**	**<0.001**		
		b	**SE b**	**β**	**t**	**Sobel**
(SPA) - PA		0.047	0.049	0.068	0.961	NS
(SPA) - NPI		-0.003	0.046	-0.004	-0.067	NS
Individual/psychological		-0.123	0.047	-0.197	-2.62	NS
Lack of partners		0.015	0.034	0.028	0.435	NS
Lack of alternative options		-0.002	0.043	-0.004	-0.055	NS
External obligations	→Attraction	0.062	0.028	0.142	2.20	<0.05

NS = Non-significant

Table 4.41 shows that the Sobel (1982) test indicated the relationship between the lack of alternative options constraint and how often customers participated in classes was mediated by attraction (Sobel test = 1.97 $p< 0.05$). Therefore, only attraction was a significant mediator; more specifically its effects were restricted to only the relationship between lack of alternative options and frequency of visitation. This clearly supports H8B. This relationship is positive, indicating that the constraint no longer inhibits or prevents participation, but instead acts to motivate the behaviour. This could be because lack of alternative options is a structural constraint that it is more easily negotiated.

The frequency of visitation was predicted by both lack of partners ($\beta = -0.134$, $p < 0.05$) and lack of alternative options ($\beta = 0.176$, $p < 0.05$) with the addition of

attraction significantly increasing the variance explained by 9% (R^2 change = .093, F(4, 264) = 7.10, p < 0.001). However, the Sobel (1982) approach to mediation did not support the mediating role of attraction in the relationship between lack of partners and frequency of visitation, as this relationship was non-significant (Table 4.41). Therefore, there are indications that attraction and centrality may play a mediating role in the relationship between lack of partners and frequency of visitation, but given the non-significant nature of the Sobel test, this is not the case.

Table 4.41: Involvement as a mediator between constraints and frequency

Frequency		**R^2change**	**F**	**P**		
Change		**0.093**	**7.096**	**<0.001**		
		b	**SE b**	**β**	**t**	**Sobel**
(SPA) - PA		0.036	0.122	0.021	0.292	NS
(SPA) - NPI		-0.081	0.115	-0.047	-0.698	NS
Individual/psychological		-0.062	0.118	-0.040	-0.527	NS
Lack of partners		-0.176	0.085	-0.134	-2.073	NS
Lack of alternative options	→Attraction	0.260	0.108	0.176	2.411	<0.05
External obligations		-0.059	0.070	-0.055	-0.844	NS

NS = Non-significant

Table 4.42 shows that the constraints factors were not significant predictors of the behavioural loyalty measure of the length of time customers of the centre participated in classes (duration of visitation). This was shown by the Sobel test (p > 005), supporting H8B in predicting that only specific factors would influence specific loyalty stages when mediated by specific involvement factors.

Table 4.42: Involvement as a mediator between constraints and duration

Duration	R^2change	F	P		
Change	**0.028**	**1.963**	**NS**		
	b	**SE b**	**β**	**t**	**Sobel**
(SPA) - PA	0.062	0.054	0.084	1.136	NS
(SPA) - NPI	-0.007	0.052	-0.010	-0.140	NS
Individual/psychological	0.010	0.053	0.015	0.184	NS
Lack of partners	-0.045	0.038	-0.081	-1.183	NS
Lack of alternative options	0.009	0.048	0.015	0.195	NS
External obligations	0.012	0.031	0.027	0.394	NS

NS = Non-significant

Examining the direct relationship between involvement factors and behavioural loyalty may help clarify why no mediation of the involvement factors occurred when assessing duration of visitation. The behavioural measures of loyalty will now be discussed looking at each dimension of loyalty separately; these include intensity of participation, frequency visitation and duration of visitation.

Although attraction was not a significant predictor of attitudinal or conative measures, it did significantly predict some measures of behavioural loyalty. For example, the involvement factor of attraction ($\beta = 0.258$, $p < 0.001$) was the only significant predictor of intensity of participation. Similarly, the group fitness involvement factor of attraction ($\beta = 0.235$, $p < 0.001$) was the only significant predictor of frequency of visitation. In contrast, neither of the four involvement factors significantly predicted duration of visitation. It appears that involvement and duration of visitation are not linked.

4.11 Mediating relationship; service quality-involvement-loyalty.

RQ9: ***Is involvement a universal mediator: Will involvement factors influence service quality?***

It has been shown previously that involvement factors were intervening variables between constraints and loyalty. It is now important to look at service quality factors and loyalty mediated via the involvement factors to determine the second part of RQ9 (will involvement factors influence service quality). In order to do this, both the unmediated (service quality and its influence upon loyalty) and mediated relationships (when involvement factors are entered) will be reported for service quality factors and their relationship with both involvement factors and loyalty factors.

H9A: *Outcome quality will positively predict attraction, such that higher outcome quality will lead to higher attraction.*

The outcome factor was the only service quality factor to positively and significantly predict attraction ($\beta = 0.251$, $p<0.001$) explaining 7% of the total variance in the involvement factor attraction (Table 4.43). This indicates that attaining results from training at the centre is important to the individual and pleasurable for the individual and are key reasons why some customers may continue to participate, supporting H9A.

Table 4.43: Service quality and its influence on attraction

	R	**R^2**	**F**	**P**			
Overall model	**0.261**	**0.068**	**6.696**	**<0.001**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Physical environment	0.014	0.095	0.010	0.152	NS	0.775	1.291
Outcome	0.620	0.152	0.251	4.072	<0.001	0.892	1.122
Staff interaction	0.037	0.126	0.020	0.296	NS	0.727	1.376

NS = Non-significant

The service quality factors had no influence upon risk (p>0.05) indicating that service quality factors are poor direct predictors of risk (Table 46).

Table 4.44: Service quality and its influence on risk

	R	R^2	F	P			
Overall model	**0.121**	**0.015**	**1.363**	**NS**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Physical environment	-.0127	0.086	-0.101	-1.478	NS	0.775	1.291
Outcome	-0.138	0.138	-0.063	-1.000	NS	0.892	1.122
Staff interaction	0.030	0.114	0.019	0.296	NS	0.727	1.376

NS = Non-significant

Although risk was shown to be a significant direct negative predictor of attitudinal and conative loyalty in an earlier analysis, it may not be a mediating variable but instead simply a negative direct predictor of attitudinal and conative loyalty. Therefore, risk may be a salient direct negative predictor in the attitudinal and conative stage of loyalty as opposed to a salient mediating variable in consumer behaviour and constraints.

H9B: *Outcome quality will predict centrality.*

Outcome quality supported H9B (Table 4.45) as it was the only service quality factor to positively and significantly predict centrality ($\beta = 0.255$, $p < 0.001$). The overall variance explained was 10%, indicating that attaining results is central to participation and therefore an important reason for the individual using the service.

Table 4.45: Service quality and its influence on centrality

	R	R^2	F	P			
Overall model	**0.303**	**0.092**	**9.216**	**<0.001**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Physical environment	-0.100	0.083	-0.079	-1.208	NS	0.780	1.283
Outcome	-0.560	0.134	0.255	4.170	<0.001	0.890	1.123
Staff interaction	0.215	0.110	0.132	1.953	NS	0.732	1.367

NS = Non-significant

Table 4.46 shows support for the specific relationships outlined in H9A, and H9B as the service quality factors did not influence sign value ($p > 0.05$), although the factors together explained 4% of the total variance.

Table 4.46: Service quality and its influence on sign value

	R	R^2	F	P			
Overall model	**0.199**	**0.040**	**3.756**	**<0.05**			
	b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
Physical environment	0.076	0.098	0.052	0.767	NS	0.777	1.287
Outcome	0.279	0.158	0.110	1.763	NS	0.895	1.118
Staff interaction	0.192	0.131	0.102	1.465	NS	0.731	1.369

NS = Non-significant

Overall, for the prediction of service quality on sign value none of the service quality factors individually stood out to show a unique individual contribution to the overall model. Therefore, as an overall model there is a statistically significant relationship but the individual factors do not make a unique contribution, therefore H9A, and H9B are supported.

H9C: *Centrality and sign value will significantly mediate the relationships between all three service quality factors and attitudinal loyalty.*

The results outlined in Table 4.47 confirm H9C. Using the Sobel's (1982) approach, physical environment quality and its relationship to attitudinal loyalty was mediated by centrality (Sobel test = 3.161, $p<0.001$). The relationship between physical environment quality and attitudinal loyalty was mediated by sign value (Sobel test = 2.257, $p < 0.01$). Outcome quality and its relationship to attitudinal loyalty was mediated by centrality (Sobel test = 2.155, $p < 0.01$). Outcome quality and its relationship to attitudinal loyalty is mediated by sign value (Sobel test = 1.791, $p < 0.05$). Staff interaction quality and its relationship to attitudinal loyalty is mediated by centrality (Sobel test = 2.893, $p < 0.001$). Staff interaction quality and its relationship to attitudinal loyalty is mediated by sign value (Sobel test = 2.153, $p < 0.01$). The results indicate that centrality and sign value were significant mediators in the

relationship between service quality attributes and attitudinal loyalty. The service quality attributes explained 30% of the overall variance in attitudinal loyalty (R^2 = 0.30, F(3,271) = 38.55, p < 0.001). There was a 10% increase in the variance explained due to both the entry of centrality and sign value (R^2 change = 0.101, F(4,267) = 11.28, p < 0.001). The predictive ability of the service quality (physical environment quality, outcome quality and staff interaction quality) upon attitudinal loyalty can therefore be said to be partially mediated by centrality and sign value (as indicated by a decrease in β weight). This shows that sign value and centrality are significant intervening variables in the relationship between service quality attributes and attitudinal loyalty, thus supporting H9C.

Table 4.47: Involvement as a mediator between service quality and attitudinal loyalty

Attitudinal		**R^2change**	**F**	**P**		
Change		**0.101**	**11.279**	**<0.001**		
		b	**SE b**	**β**	**t**	**Sobel**
Physical environment	→Centrality	0.288	0.063	0.249	4.55	<0.001
Physical environment	→Sign value	0.288	0.063	0.249	4.55	<0.001
Outcome	→Centrality	0.260	0.105	0.130	2.48	<0.01
Outcome	→Sign value	0.260	0.105	0.130	2.48	<0.01
Staff interaction	→Centrality	0.324	0.084	2.18	3.86	<0.001
Staff interaction	→Sign value	0.324	0.084	2.18	3.86	<0.01

Sign value and centrality were also significant mediators between constraints and attitudinal loyalty, indicating that involvement may potentially be a universal mediator influencing the attitudinal stage of loyalty.

H9D: *Sign value will significantly mediate the relationship between physical environment quality and conative loyalty.*

H9E: *Sign value will significantly mediate the relationship between staff interaction quality and conative loyalty.*

Table 4.48, shows only sign value is a salient mediator between physical environment quality and conative loyalty supporting H9D. This was demonstrated by the Sobel approach performed to test mediation showing only sign value was a significant

mediator in the relationship between the some service quality attributes and conative loyalty. For example, there was a significant relationship between physical environment quality and conative loyalty mediated through sign value (Sobel test = 2.159, $p < 0.01$) supporting H9D. The relationship between staff interaction quality and conative loyalty was mediated through sign value (Sobel test = 1.909, $p<0.05$) supporting H9E. However, sign value did not mediate the relationship between outcome quality and conative loyalty as this relationship was not demonstrated via application of the Sobel test, supporting H9D and H9E as they state only specific service quality attributes will be mediated via sign value.

When assessing the relationship between service quality factors (consisting of physical environment, staff interaction and outcome quality) and conative loyalty in the regression analysis, two involvement factors stood out as possible mediators. The involvement factors sign value and risk when entered into the regression equation they signified partial mediation with a drop in beta weights for all three service quality factors. However, neither sign value nor risk increased the variance explained in the relationship between the service quality factors and conative loyalty (R^2 change = 0.021, $F(4,267) = 2.27$, $p> 0.05$). However, the Sobel test shows clear indications that sign value plays a mediating role in the relationship between some service quality factors (physical environment quality and staff interaction quality) but not all service quality factors (outcome quality) and conative loyalty. Therefore, satisfying H9D and H9E, but as identified by the mediated hierarchical regression analysis there may be other possible mediators such as risk that may be salient under different conditions or situations.

Table 4.48: Involvement as a mediator between service quality and conative loyalty

Conative		**R^2change**	**F**	**P**		
Change		**.021**	**2.268**	**NS**		
		b	**SE b**	**β**	**t**	**Sobel**
Physical environment	→Sign value	0.404	0.056	0.398	7.16	<0.001
Outcome		0.192	0.093	0.110	2.06	NS
Staff interaction	→Sign value	0.267	0.075	0.205	3.57	<0.05

NS = Non-significant

Although sign value was not a significant mediator for all the service quality factors and conative loyalty, likewise, sign value nor any other involvement factors significantly mediated constraints factors and conative loyalty. This indicates that involvement may not be a universal mediator linking service quality to constraints when specifically assessing conative loyalty.

H9F: *Attraction will significantly mediate the relationships between outcome quality and both intensity of participation and frequency of visitation.*

The Sobel (1982) approach to mediation shows attraction was a significant mediator between outcome quality and intensity of participation (Sobel test = 1.583, $p < 0.05$) supporting H9F (Table 4.49). For example, the results in the regression analysis also indicate that service quality directly predicted intensity of participation ($R^2 = 0.035$, $F(3,273) = 3.34$ $p < 0.05$). Yet after the involvement factor attraction (the only variable that make a statistically significant contribution) was entered into the regression equation, it increased the total variance explained (R^2 change = 0.079, $F(4,267) = 5.98$, $p < 0.001$). This is a notable finding as 8% more variance in intensity of participation can be explained by the addition of attraction. The attraction factor fully mediates the relationship between outcome quality and intensity of participation (as indicated by both the decrease in β weight for outcome quality and this factor then becoming non-significant). Therefore outcome quality satisfies H9 F.

Table 4.49: Involvement as a mediator between service quality and intensity

Intensity		**R^2change**	**F**	**P**		
Change		**0.079**	**5.975**	**<0.001**		
		b	**SE b**	**β**	**t**	**Sobel**
Physical environment		-.035	.036	-.064	-.965	NS
Outcome	→Attraction	.105	.060	.112	1.76	<0.05
Staff interaction		-.009	.048	-.013	-.183	NS

NS = Non-significant

The relationship between outcome quality and how often customers attend the health and fitness centre per week (frequency of visitation) was partially mediated by the involvement factor attraction (as shown by a decrease in β weight for outcome quality and becoming non-significant) (Table 4.50). The results also indicate that the service quality factor outcome quality predicted frequency of visitation (R^2= 0.076, F(3, 273) = 7.46 p < 0.001) but after attraction was entered into the regression equation, it significantly increased the total variance explained with an additional 7% of variance being explained (R^2 change = 0.069, F(4,269) = 5.401, p < 0.001). Application of the Sobel test confirms this mediated relationship exists (Sobel test = 2.23, p < 0.01). Therefore, H9F is supported, showing a statistically significant effect exists between the outcome quality factor and how often customer attend classes when mediated by the involvement factor attraction.

Table 4.50: Involvement as a mediator between service quality and frequency

Frequency		**R^2change**	**F**	**P**		
Change		**0.069**	**5.401**	**<0.001**		
		b	**SE b**	**β**	**t**	**Sobel**
Physical environment		-0.170	0.088	-0.125	-1.92	NS
Outcome	→Attraction	0.446	0.146	0.191	3.05	<0.01
Staff interaction		-0.016	0.117	-0.009	-.135	NS

NS = Non-significant

Table 4.49 and Table 4.50 indicate that attraction is a significant mediator between outcome quality and intensity of participation as well as outcome quality and frequency of visitation. This also was the case in this stage of loyalty for some of the constraints factors (Table 4.40 & 41), indicating that attraction may be a universal mediator linking both service quality and constraints.

There is no mediated relationship between the service quality factors and duration of visitation, with involvement having no apparent mediating effect on this relationship (Table 4.51). The regression analysis also supports that there is no increase in variance explained via the entry of the involvement factors (p > 0.05). Therefore, H9F

is supported, showing no statistically significant effect exists between service quality factors and duration of visitation when mediated by involvement. Involvement factors only mediate the relationship between specific service quality factors and specific stages of loyalty.

Table 4.51: Involvement as a mediator between service quality and duration

Duration	**R^2change**	**F**	**P**		
Change	**0.014**	**1.010**	**NS**		
	b	**SE b**	**β**	**t**	**Sobel**
Physical environment	0.091	0.039	0.157	2.32	NS
Outcome	0.141	0.065	0.142	2.18	NS
Staff interaction	-0.021	0.052	-0.028	-0.399	NS

NS = Non-significant

Overall, the results presented in this section of the thesis indicate that centrality and sign value were important mediators of physical environment quality, outcome quality and staff interaction quality when assessing individually their relationship with attitudinal loyalty. Comparing these relationships to the constraints and loyalty relationships described earlier, there is a similar pattern whereby sign value and centrality are important mediators in the attitudinal stage of loyalty. This can be seen in the relationship between PA (physique affirmation) and NPI (negative physique internalisation) when assessing these factors separately in relation to their influence upon attitudinal loyalty.

Only sign value mediated the relationship for both physical environment quality and staff interaction quality when these service quality factors were assessed individually in terms of their relationship to conative loyalty. This finding of sign value being a dominant mediator at this stage of loyalty was not reproduced in the constraints, as there was no mediated relationship found impacting upon constraints and conative loyalty.

It was shown that the outcome quality factor and external obligation factor and their independent relationships to intensity of participation were clearly mediated by the

involvement factor attraction. For this behavioural stage of loyalty it clearly shows that the involvement factor of attraction is a universal mediator for both service quality and constraints. This was reproduced in the findings assessing the behavioural loyalty measure frequency of visitation, as outcome quality and lack of alternative options and their independent relationships to frequency of visitation were mediated via attraction. Therefore, the involvement factor attraction appears to be a universal mediator in the relationship for some service quality factors as well as some constraints factors when assessing their relationship to both intensity of participation and frequency of visitation.

The significant mediators consist of attraction, centrality and sign value which have been shown to be the dominant mediators in the relationship between the service quality factors and loyalty in health and fitness centres. Therefore supporting RQ9 involvement consisting of sign value, centrality and attraction are universal mediators for some of the factors in both the constraints and service quality.

4.12 Testing the existence of a causal loyalty chain.

H10: *Attitudinal loyalty will lead to conative loyalty, which in turn will lead to behavioural loyalty.*

There is a causal link between attitudinal loyalty and conative loyalty (Table 55), yet conative loyalty does not influence intensity of participation or frequency of visitation ($p > 0.05$). The results further indicate attitudinal loyalty (Table 4.52) is a far superior predictor of duration of visitation when compared to the relationship between conative loyalty and duration of visitation (shown in Table 4.53) as it provides a much higher statistically significant contribution. Finally, attitudinal loyalty predicts more components of behavioural loyalty (frequency of visitation and duration of visitation) when compared to conative loyalty (duration of visitation).

Table 4.52: Attitudinal loyalty and its link to both conative and behavioural loyalty

		R	R^2	F	P			
1. Overall model for conative		0.647	0.418	197.808	<0.001			
2. Overall model for intensity		0.015	0.000	0.066	NS			
3. Overall model for frequency		0.226	0.051	0.048	<0.001			
4. Overall model for duration		0.197	0.039	11.124	<0.001			
		b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
1. Attitudinal	→Conative	0.569	0.040	0.647	14.064	<0.001	1.000	1.000
2. Attitudinal	→Intensity	0.007	0.028	0.015	0.256	NS	1.000	1.000
3. Attitudinal	→Frequency	0.265	0.069	0.226	3.850	<0.001	1.000	1.000
4. Attitudinal	→Duration	0.099	0.030	0.197	3.335	<0.001	1.000	1.000

NS = Non-significant

Table 4.53: Conative loyalty and its link to behavioural loyalty

		R	R^2	F	P			
1.Overall model for intensity		0.010	0.00	0.030	NS			
2. Overall model for frequency		0.044	0.002	5.41	NS			
3. Overall model for duration		0.145	0.021	5.900	<0.05			
		b	**SE b**	**β**	**t**	**P**	**Tol**	**VIF**
1. Conative	→Intensity	0.010	0.032	0.010	-0.173	NS	1.000	1.000
2. Conative	→Frequency	0.059	0.080	0.044	0.735	NS	1.000	1.000
3. Conative	→Duration	0.082	0.034	0.145	2.429	<0.001	1.000	1.000

NS = Non-significant

4.13 Summary

In summary, the factors and the mediated hierarchical regression analysis determined how service quality and constraints influenced loyalty in health and fitness centres. It was shown that service quality factors and constraints were both important in predicting loyalty.

The dominant mediators included satisfaction, attraction, sign value and centrality. It is important to note that attraction was the single most powerful mediator between service quality in both intensity of participation and frequency of visitation. Attraction was also shown to be a dominant mediator between constraints and intensity of participation and frequency of participation. Finally, centrality and sign value were dominant mediators predicting attitudinal loyalty across both service quality and constraints.

CHAPTER 5

Discussion

Chapter 4 provided a detailed description of the major findings of the current study. Chapter 5 provides a more in-depth discussion, interpretation of the results and implications for existing research. The major findings of the study have been summarised and organised into core 'themes'[96] to facilitate the presentation of the results. Hypotheses have been grouped under each of these key themes and then discussed in relation to the existing literature.

Figure 5.1 represents an overview of the relationships that were found in the current study. Where results differ from previous literature, the study will provide possible explanations. Where the literature is consistent with the findings of the study, more in-depth interpretations will be provided to build on existing research/theory. New research findings will also be highlighted and explored, building on existing research. In addition, this chapter considers at the macro-level the findings of the study in relation to the general problem outlined in Chapter 1 paying attention to the influence of both service quality and constraints on loyalty, as well as examining the role of involvement as a mediating variable that unites both service quality and constraints to on-going loyalty.

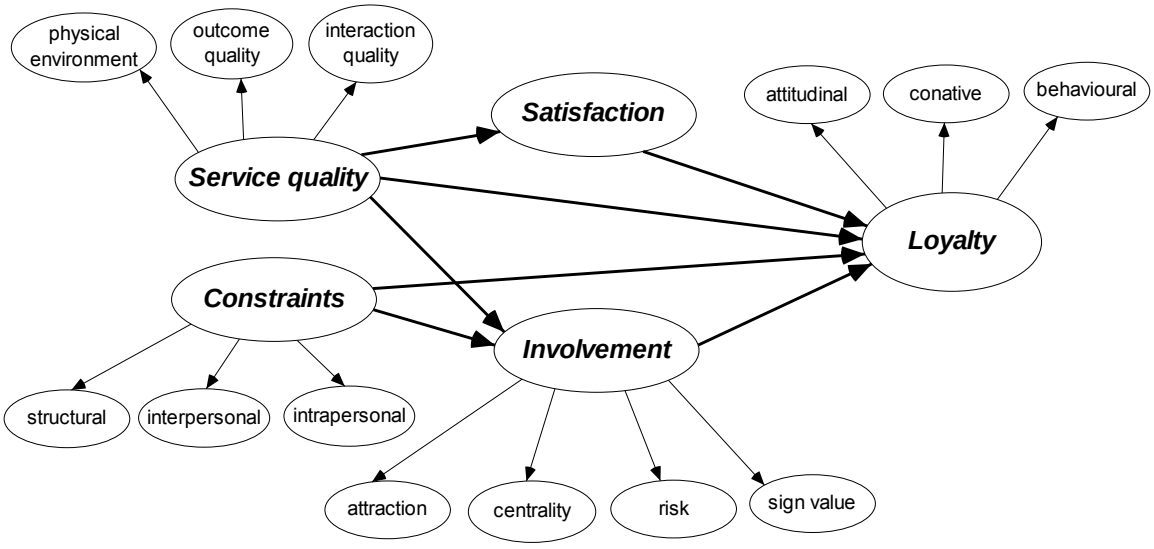


Figure 5.1: An overview of the relationships among the variables within the thesis.

[96] The theme titles capture essential qualities of what is represented in the findings.

5.1 Findings underpinning the themes

Theme 1: *Customers stay at the centre because service quality provides them with what they desire, or facilitates the attainment of that desire.*

Theme 1 focused on **what customers most desire**. Theme 1 was developed from six major findings of the study:

- Desired levels of service quality results in preference for the centre as expressed through attitudinal loyalty and helps establish a bond between the customer and the service which is expressed via conative loyalty.
- All three service quality factors significantly predict satisfaction.
- Staff interaction quality was important to the development of the initial stages of loyalty (attitudinal).
- The tangible elements of the service, such as physical environment quality, influence customers to stay longer at the centre.
- Outcome quality predicts attitudinal, conative loyalty and behavioural measures of loyalty.
- Outcome quality was the strongest predictor of attraction.

Theme 2: *Customers may leave the centre because intrapersonal and interpersonal constraints limit the benefits of participation*.

Focussing on **constraints that limit what people desire**, six key findings cluster into Theme 2. The six major findings relating to this theme include:

- Intrapersonal constraints reduce pleasure as per the involvement factor attraction.
- Intrapersonal constraints limit centrality. This finding indicates that intrapersonal constraints negatively impact upon how central group fitness classes are to an individual's everyday life.
- Intrapersonal constraints negatively impact upon thinking, feeling and bonding with the centre, as expressed through attitudinal and conative loyalty.
- Lack of partners limits or restricts the frequency of visits to the centre.
- External obligations influence the intensity of participation.
- Lack of alternative options influence the duration of visitation.

Theme 3: *What customers gain from participation can offset both negative service experiences and constraints they encounter, but certain constraints cannot always be offset.*

- Mediating variables can offset negative experiences and are indicated by seven key findings. The involvement factor, attraction, was an important mediator at the behavioural stage of loyalty, whereas sign value and centrality were important mediators of attitudinal loyalty.
- Enduring involvement has motivational properties. In addition, involvement can be considered a substitute for motivation. The current findings show attraction may act to motivate people to attempt to attain outcomes related to intrinsic benefits, resulting in more intense participation and more regular visits.
- Neither interpersonal nor intrapersonal constraints were overcome by high levels of involvement.
- Attraction to exercise nullifies the negative effect of structural constraints on both frequency of visitation and intensity of participation.
- Centrality offsets intrapersonal constraints to maintain loyalty, specifically attitudinal loyalty.
- Sign value offsets the influence of both the physical environment quality and staff interaction enabling a stronger attachment to the centre.
- Superior service quality results in higher levels of satisfaction, resulting in both preference for the centre and attachment to the centre.

Theme 4: *Behavioural intentions (conative loyalty) may not be the best predictor for participation of customers at health and fitness centres.*

Turning the focus to the proposed link between attitudinal, conative and behavioural loyalty**,** two key findings relate to Theme 4.

- Attitudinal loyalty is a powerful predictor of conative loyalty, yet conative loyalty is a poor predictor of behavioural measures of loyalty.
- Other factors, such as attitudinal loyalty, satisfaction and involvement are better predictors of behavioural loyalty than conative loyalty.

5.2 Theme 1

Theme 1: Customers stay at the centre because service quality provides them with what they desire, or facilitates the attainment of that desire.

This theme focuses on the service quality attributes that drive satisfaction, involvement and loyalty. Theme 1 emerged from findings from the following hypotheses:

H1A: All three service quality factors (physical environment quality, outcome quality and staff interaction quality) will positively predict both attitudinal and conative loyalty.

H1B: Outcome quality will predict all three measures of behavioural loyalty (intensity, frequency and duration).

H1C: Physical environment quality will predict both frequency and duration of visitation.

H2: All three service quality factors (physical environment, outcome quality and staff interaction quality) will positively predict satisfaction.

H9A: Outcome quality will positively predict attraction, such that higher outcome quality will lead to higher attraction.

H9B: Outcome quality will predict centrality.

Emerging from these hypotheses is a theme that suggests service quality is critical to maintaining satisfaction and loyalty, as well as influencing elements of the involvement of the individual at fitness centres.

- As anticipated from literature related to the service quality field, all three factors of service quality significantly and positively influenced satisfaction. H2 was therefore confirmed.
- In relation to how service quality impacts on loyalty in fitness centres, H1A was confirmed. All factors of service quality positively influenced both preference for the centre (attitudinal loyalty) and levels of attachment to the centre (conative loyalty).
- In relation to behavioural loyalty, H1B was only partially confirmed. Only outcome quality significantly predicted all three measures of behavioural loyalty (frequency of visitation, intensity of participation and duration of visitation).

- The quality of the physical environment offered by the centre was found to only influence the duration of visits, not the frequency of visits or intensity of participation. Therefore, H1C was only partially confirmed.
- Staff interaction quality was not a significant predictor of any of the measures of behavioural loyalty.
- Service quality components were found to predict aspects of the involvement of the customer. Higher service quality was seen to be important in helping to explain why customers became highly involved in group fitness classes. It facilitates attractionof the experience, with the resultant personal benefits then becoming a central reason for participation. H9A and H9B were therefore confirmed.

The relationship between service quality and loyalty will be considered in more detail.

Pritchard et al. (1992) suggest recreation participants' loyalty may be related to the level of quality they perceive in the service. Extending this, Backman and Veldkamp (1995) suggest that service quality was perceived differently based on the level of loyalty of the participant. They found that participants rated as either low or high in terms of their loyalty disagreed on their perception of selected service quality dimensions used within their study, with participants exhibiting low loyalty, reporting the largest gap in perceptions of service quality. Clearly, therefore, it appears that the loyalty of the customer is linked to their service quality perceptions.

Building on Backman and Veldkamp (1995), it appears that specific dimensions of service quality may exert differential influences on loyalty. Highly loyal customers of health and fitness centres may be more influenced by the interaction with the instructor than with how well maintained the equipment is. Customers with lower loyalty may have encountered poor service quality in specific areas that were notable to their experience, rather than poor service quality overall. This suggestion is supported by the current study, with physical environment quality and staff interaction quality exerting a stronger influence than outcome quality over attitudinal loyalty.

Support for this finding can be found in studies on service quality perception and loyalty in ski resorts (Alexandris et al., 2006). Alexandris et al. (2006) examined the direct influence of service quality on place attachment and place dependence, and the direct predictive effect of both place attachment and place dependence on loyalty in ski resorts. It was shown that physical environment quality and staff interaction have the most powerful influence over intentions to continue skiing, with outcome quality exerting the least effect on intentions to continue skiing.

However, as reported in Chapter 2, the current study assessed several different positions (Heere & Dickson, 2008; Kyle et al., 2003; Kyle et al., 2004; Kyle et al., 2006; Lee et al., 2007; Mahoney et al., 2000) and considered place attachment as representative of attitudinal loyalty (Kyle et al., 2004; Lee et al., 2007). In light of this argument, it is proposed that the findings from Alexandris et al. (2006), when compared to the findings of the current study, interpretation will based on the perspective from Kyle et al. (2003, 2006) on place attachment and place dependence given Kyle et al. (2003, 2006) not only considers place attachment to represent the attitudinal component but further claims place dependence represents the conative component.

Alexandris et al. (2006) found that interaction quality, followed by physical environment quality, and finally outcome quality, predict place attachment. As place attachment represents the attitudinal component, as claimed by Kyle et al. (2003, 2006), this would infer that outcome quality can predict attitudinal loyalty. This inference was supported by the current study which found that service quality components predict attitudinal loyalty. This finding therefore adds support to the argument that place attachment represents attitudinal loyalty (Kyle et al., 2004; Lee et al., 2007). Alexandris et al. (2006) argue that physical environment quality is the most powerful predictor of place dependence, followed by interaction quality and outcome quality, were service quality components that predicted place dependence. Accordingly, when the findings by Alexandris et al. (2006) are considered from the perspective of Kyle et al. (2003, 2006) who claim place dependence represents the conative component, this supposition would suggest that service quality components

predict conative loyalty. This supposition is supported by the findings of the current study showing the same service quality components as those used by Alexandris et al. (2006) predicted conative loyalty. This adds strength to the argument that place dependence may represent the conative component (Kyle et al., 2003, 2006).

5.2.1 Outcome quality and its link to behavioural loyalty

H1B, Outcome quality will predict all three measures of behavioural loyalty (intensity, frequency and duration), hypothesises the role outcome quality plays in influencing behavioural loyalty in health and fitness centres. In the current study, outcome quality was shown to be the only service quality factor to predict all three measures of behavioural loyalty. This contrasts with the fact that outcome quality was found to be the weakest predictor of both attitudinal loyalty and conative loyalty.

One may question why outcome quality appears to exert such a powerful influence over measures of behavioural loyalty in the current study. Gronroos (1984, 2001, 2004) suggests that the quality of the outcome customers receive is central to their use of the service. Extending this observation to the current study, members of a group fitness class might participate to attain a host of internal outcomes, such as increased energy, psychological wellbeing, health or physical enhancement[97], but might evaluate a service negatively based on not seeing or feeling the expected outcomes (Theodorakis et al. 2009). By attending regularly, for longer and at more intense levels, customers are likely to attain more of these outcomes, which is likely to result in continued membership at the centre. However, if customers do not attain these outcomes from group fitness classes, they may decide to discontinue visiting, or reduce their participation.

[97] It is possible that one's "fitness", in the sense of being strong, healthy and able, is an intrinsic aspect of exercise and not associated with extrinsic aspects of exercise (Kasser & Ryan, 1996).

5.2.2 Physical environment quality and its proposed link to the brand; and outcome quality and its proposed link to the product

H1C, Physical environment quality will predict both frequency and duration of visitation, was partially supported, with a direct relationship found between physical environment quality and the duration of visitation, but not the frequency of visitation. This indicates that whilst physical environment quality has an important influence on how much time customers spend per visit, it may not influence their frequency of visitation to the centre. One possible explanation for this finding is that customers are more inclined to stay at the centre for longer periods of time per visit due to the aesthetics of the physical environment (Bitner, 1992). Most people, for example, will spend more time enjoying the ambience of an attractive restaurant than they will a fast food venue, which plays more of a functional role. In other words, a more pleasant environment results in greater resistance to leaving when the customer is at the centre.

Past literature supports the role of physical environment in service contexts as a strong influence on both perceptions of the service experience and ultimately customer satisfaction (Bitner 1990; Bitner, 1992). The same may apply to health and fitness centres. In the current study, physical environment quality was found to be the strongest service quality predictor of satisfaction in the context of health and fitness centres. Higher levels of physical environment quality predict satisfaction which in turn may lead to a desire to remain at the centre.

Although this idea has not been specifically examined in relation to health and fitness centres, support for this idea does exist in related areas. For example, Tsiotsou (2006) in her study on service quality in ski resorts, proposed that physical environment quality may elicit positive affective responses from customers, leading to extended stays. Even though it is not suggested here that health and fitness centres have the same level of aesthetic appeal as a ski resort, Tsiotsou's (2006) finding may also have some applicability. Similarly, Wirtz and Bateson (1999) have proposed that the physical environment elicits an experiential affective feeling of pleasure and arousal.

A pleasant physical environment at a fitness centre may therefore lead to higher expressions of pleasure by customers; whereas an unpleasant physical environment may lead to an increased desire to perform the required tasks (i.e., the class) and leave immediately.

However, whilst physical environment quality was the strongest predictor of satisfaction compared to other service quality factors in the current study, it failed to predict attraction. It would be assumed, based on Tsiotsou (2006) and Wirtz and Bateson (1999), that physical environment quality would lead to higher levels of attraction which would result in higher levels of duration of visitation. In other words, the more importance/pleasure derived from the behaviour, the greater the desire to maintain association with that behaviour, but this was not the case in the current study.

The reason for this could be that satisfaction is conceptualised as being composed of both cognitive and affective components (Oliver, 1997). The findings of the current study suggest that physical environment quality predicts the cognitive side of satisfaction, but is not as effective in predicting its affective side. In contrast, outcome quality seems to more closely reflect an affective side of satisfaction. For example, outcome quality predicted both attraction and satisfaction (H9A and H2). This suggests that customers experience a satisfying and pleasurable experience when they attain results. In other words, it may be that affective elements dominate the reasons why getting results is pleasurable, as affective feelings are triggered by participation in group fitness classes (the product).

In contrast, the physical environment may be assessed on a more cognitive level. Even acknowledging Tsiotsou's (2006) suggestion that physical environments may generate affective responses, customers may almost dispassionately assess how clean the equipment is, or the quality of the floor surface at a health and fitness centre. This could explain why satisfaction can be predicted by both outcomes and physical environment quality; but when it comes to attraction to the activity, outcome quality appears to be the sole significant service quality predictor.

This thesis proposes, therefore, that outcome quality may be predicting a form of product loyalty, whereas physical environment quality may be predicting a form of brand loyalty.

5.3 Theme 2

Theme 2: Customers may leave the centre because intrapersonal and interpersonal constraints limit the benefits of participation.

The second theme of the study findings indicates intrapersonal constraints and interpersonal constraints weaken involvement in group fitness classes and loyalty to the centre. However, in contrast, structural constraints were found to positively influence loyalty.

H6A: *Higher levels of both individual/psychological constraints and SPA will be related to lower levels of attraction.*

H6B: *Higher levels of individual/psychological constraints and SPA will negatively predict centrality.*

H5A: *Individual/psychological constraint and SPA will negatively predict all measures of loyalty (attitudinal, conative and behavioural).*

H5D: *Lack of partners will negatively predict how often customers visit a centre.*

H5B: *Structural constraints (specifically those related to time constraints or other obligations) will negatively predict the level of intensity of participation.*

H5C: *Structural constraints (specifically relating to access or financial constraints) will negatively predict frequency of visitation.*

The results of the study demonstrate that individual/psychological constraints limit both attraction and centrality, supporting H6A and H6B. In other words, customers may defect because issues regarding health, a recurring injury, or their level of skill (elements of individual/psychological constraints) reduce the level of attraction and centrality. This may occur for a variety of reasons. Individual/psychological constraints[98] may stop participants seeking further information or communicating with other class members on topics relating to classes, leading to the activity being less central to who they are as an individual. This issue has not been examined in health and fitness centres previously, but confined to studies on ski resorts in Greece

[98] For example, health problems, lack of skills, lack of confidence.

(Alexandris et al., 2008). The findings of the current study match Alexandris et al. (2008) who found attraction and centrality were inhibited by individual/psychological constraints for ski resort respondents. Kyle and Mowen (2003) found customers of the Cleveland Metro park exhibited a range of constraints that inhibited their involvement. The current study in the context of health and fitness centres along with the study by Alexandris et al. (2008) on ski resorts infer a need to focus on reducing individual/psychological constraints to ensure customers remain involved in the activity as this may lead to loyalty. To extend this line of argument further a consideration of constraints on loyalty needs to be explored as per H5A below.

5.3.1 Both intrapersonal and interpersonal constraints negatively influence behavioural loyalty

Intrapersonal constraints. Intrapersonal constraints were shown to negatively impact on both attitudinal loyalty and conative loyalty, therefore satisfying H5A. In contrast, only individual/psychological constraints predicted intensity. Accordingly, H5A was seen to be partially supported, as not all measures of behavioural loyalty were predicted by individual/psychological constraints. When considered in conjunction with the findings from H6A and H6B (individual/psychological constraints reduce attraction and centrality experienced by the customer), and extending current literature in ski resorts in Greece, customers who experience high levels of individual/psychological constraints demonstrate lower levels of intensity of participation. Therefore, relating the current findings to Theme 1, a focus only on service quality does not comprehensively address all the issues that influence customer loyalty. To fully understand customer loyalty in health and fitness centres, an understanding of both the constraints people experience, as well as the provision of service quality, is required.

In addition to assessing the broader literature on leisure constraints, H5A also encompassed an examination of SPA. SPA was examined because the literature considers it to be a form of intrapersonal constraint specific to adherence to exercise programs in health and fitness centres (Hart et al., 1989). Physique affirmation and negative physique internalisation (from the intrapersonal constraint SPA) predicted

attitudinal loyalty, with negative physique internalisation leading to lower levels of attitudinal loyalty. In contrast, physique affirmation positively predicted conative loyalty, while individual/psychological constraints negatively predicted conative loyalty.

Interestingly, in both instances, physique affirmation exerted a positive influence on both attitudinal and conative loyalty. This finding indicates that physique affirmation exerts a positive influence on decisional processes that conflict with decisional processes of negative physique internalisation and individual/psychological constraints. This will be explored further in Theme 3.

Interpersonal constraints. Considering interpersonal constraints in relation to their influence on loyalty, H5D was supported, showing lack of partners (an interpersonal constraint) negatively predicts how often customers attend the centre. This suggests that a lack of social support may encourage the individual to miss training sessions. Lee and Scott (2009) found that leisure constraints have a negative impact on frequency of leisure participation. However, more specific to the health and fitness context, similar studies have found that interpersonal constraints, such as lack of a training partner, negatively influence how often customers participate in sports and fitness activities (Alexandris & Carroll, 1997a). At this juncture of Theme 2, it has been shown that constraints typically operate to inhibit participation. However, in the next section of this theme, structural constraints are shown to positively influence behavioural loyalty.

5.3.2 Structural constraints positively influence behavioural loyalty

H5B was not supported, showing that a lack of alternative options (structural constraint) positively influenced how often customers visited the centre. This indicates that a lack of alternative options leads to customers visiting the centre more frequently. Therefore, although H5C is supported in that structural constraints exert an effect, the actual direction for this relationship was not supported. The current findings indicate this type of structural constraint leads to increased visits to the centre.

Interestingly, structural constraints that include external obligations (structural constraint) predicted the level of intensity of participation. However, once again, this type of constraint did not appear to operate as anticipated, with external obligations positively predicting intensity of participation. One possible explanation for this finding may be that the constraint in this instance shapes the realisation that specific goals can be attained by modifying behaviour (Jackson & Rucks, 1995). In this case, external obligations lead to more intense participation as customers who have external obligations (such as family commitments) only have a limited amount of time to participate, and may try to compensate for that by increasing the level of intensity of their participation.

One reason why structural constraints positively influence behavioural measures of loyalty may be because they are considered to be more easily negotiated (Jackson & Scott, 1999). In contrast, individual/psychological constraints (intrapersonal constraints) or lack of a training partner (interpersonal constraints) exert a strong negative influence since they are more difficult to negotiate (Carroll & Alexandris, 1997). Structural constraints may not, therefore, be a necessary and sufficient condition for an individual to discontinue visiting the centre. In contrast, interpersonal and intrapersonal constraints are more likely to lead to defection.

5.3.3 Summary of Theme 1 and 2

To summarise Themes 1 and 2, these findings indicate attitudinal loyalty can be highly vulnerable to threats to participation, as shown by the effect of negative physique internalisation. Preference toward the brand (the centre) as a result of service quality factors, such as staff interaction, may override the negative influence of constraints.

On the other hand, if customers perceive they are being evaluated negatively by other customers at the centre, attitudinal loyalty could be reduced, leading to attitudinal shifts away from thinking and feeling positive about the service, to wanting to switch to another service provider. Accordingly, issues such as negative physique internalisation may weaken initial attitudinal loyalty bonds between a centre and a customer (before they are formed), directly impacting on the initial strength of the

relationship between service quality and loyalty. Oliver (1999) claims that this stage of loyalty formation is more susceptible to persuasion by rival marketers. There are opportunities for competitive marketers to take advantage of perceived negative appraisals to create promotional campaigns to influence customers to defect from their existing centre. Women-only centres, for example, often market a culture that is presented as female friendly and non-evaluative. Female customers who exhibit attitudinal loyalty could be influenced to switch to a women-only centre, even if the service at their existing centre is superior. This does not, however, negate the significant role that service quality provision plays in predicting attitudinal loyalty. To reiterate, the findings of this study show that whilst service quality factors, such as physical environment quality and staff interaction, exert the greatest influence on attitudinal loyalty, intrapersonal constraints still have the potential to undermine loyalty.

Conative loyalty may represent a deeper sense of loyalty to the actual service. Once conative loyalty is established, it is presumed that persuasion to switch may not be as influential on the customer (Oliver, 1997) because a combination of cognitive loyalty and affective loyalty may lead to a greater resistance to persuasive appeals, increasing attachment to the service (Oliver, 1997). Likewise, a customer who has established brand-specific commitment[99] may be less persuaded by competitive efforts to switch from their current centre because of their deeper sense of loyalty to their existing brand (Oliver 1999).

Although service quality factors may exert these influences, the results from the present study indicate that the negative influence of individual/psychological constraints is greater on both conative loyalty and intensity of participation than outcome quality is. This may be an area for future research, to examine the role that personal constraints play as threats to conative loyalty and intensity of participation.

The study findings, for example, indicate that in service contexts, such as health and fitness centres, the personal constraints customers face (individual/psychological

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[99] Expressed in the case of this study as a commitment to a specific centre, rather than just the exercise behaviour *per se*.

constraints) affect their experiences at the centre and may ultimately negatively influence their behavioural loyalty. In addition, the investigation of constraints in the current study provides a more comprehensive understanding of word-of-mouth intentions, as it shows how constraints may result in poor word-of-mouth intentions.

Howat et al. (2008) suggest that positive word-of-mouth from customers can reduce the costs associated with marketing to attain new customers. Building on the findings of Howat et al. (2008), the current study proposes individual/psychological constraints have the potential to negatively influence word-of-mouth intentions[100], which would impact on the number of new customers actually referred to the centre.

In a hypothetical scenario, for example, a person who has been unable to attend the centre because they are too embarrassed over their lack of skill when learning detailed choreographed movements in a class, may speak to management about quitting, only to be told that they have to continue paying membership fees as they signed a twelve month contract. The customer does not find this very reasonable, and may tell their story to their entire social network, including friends, family, and work colleagues (Oliver, 1999), expressing how management was unwilling to cancel their membership, and that they have been forced to pay membership fees, even though they have stopped attending the centre. The people to whom the customer relates their story will be less likely to conduct business with that particular centre (Howat & Murray, 2002).

5.4 Theme 3

Theme 3 ***What customers gain from participation can offset both negative service experiences and constraints they encounter, but certain constraints cannot always be offset.***

Theme 3 indicates that there are three main reasons customers remain loyal to a health and fitness centre. Firstly, their involvement offsets certain types of constraints enabling continued loyalty to the centre (it will be argued, however, as Theme 3 develops, not all constraints are as easily offset by involvement in group fitness

[100] Word-of-mouth intentions can be argued to be conceptually similar to *conative loyalty*, addressed in both Chapter 2 and 4.

classes). Secondly, customers may remain loyal to a centre because the provision of desired levels of service quality results in more highly involved customers participating in group fitness classes, leading to more loyal customers. Thirdly, desired levels of service quality result in more satisfied customers, leading to these customers showing a greater degree of loyalty to the centre.

More specifically, attraction was found to be an important mediating variable influencing the end stage (behavioural stages) of loyalty, and ultimately impacting on participation. In comparison, sign value and centrality were found to mediate the initial stages of loyalty formation (attitudinal loyalty and to some extent conative loyalty), influencing customer preference and attachment toward the centre.

Overall, involvement and satisfaction were found to be two critical affective mediators of the service quality-loyalty relationship. Given that both constraints and service quality are important in influencing customer's behaviour (as per Theme 1 & 2), rather than looking at the two separately, the next section will integrate the findings in order to provide a more complete perspective of factors influencing loyalty within health and fitness centres.

Theme 3 is represented by the following hypotheses.

H8B: *Attraction will mediate the relationships between structural constraints and intensity of participation and frequency of visitation.*

H9F: *Attraction will significantly mediate the relationships between outcome quality and intensity of participation and frequency of visitation.*

H9C: *Centrality and sign value will significantly mediate the relationships between all three service quality factors and attitudinal loyalty.*

H9D: *Sign value will significantly mediate the relationship between physical environment quality and conative loyalty.*

H9E: *Sign value will significantly mediate the relationship between staff interaction quality and conative loyalty.*

H4: *Satisfaction will mediate the relationships between all three service quality factors and both attitudinal and conative loyalty, but not behavioural loyalty.*

H8A: *Sign value and centrality will mediate the relationship between intrapersonal factors and attitudinal loyalty.*

5.4.1 The importance of attraction as a mediator at the end stage of loyalty entirely offsetting structural constraints and positively influencing perceptions of outcome quality.

Structural constraints. Structural constraints were found to influence participation in two key ways. Firstly, external obligations faced by customers appear to positively influence their attraction to the behaviour (participation in group fitness classes). Ultimately, this was found to lead to increased intensity of participation. Similarly, lack of alternative options was also found to influence the level of attraction customers had towards participation in group fitness classes. Rather than intensity, however, this lead to increased frequency of visitation.

Together, these findings provide support for H8B, with attraction significantly mediating the relationship between structural constraints and both intensity of participation and frequency of visitation. However, in the current study structural constraints did not act as a true constraint that blocks or inhibits participation . Instead structural constraints were seen to positively influence both intensity of participation and frequency of visitation.

The general consensus is that structural constraints negatively influence participation in leisure pursuits (Jackson, 1993; Jackson 2000). In relation to literature on exercise adherence, Humbert et al. (2006) found structural constraints negatively influence participation in physical activity. Similarly, Alexandris and Carroll (1997a) found structural constraints negatively impact participation in exercise.

The findings of the current study showing structural constraints positively influence both intensity of participation and frequency of visitation can be explained by the nature of the mediating role of attraction. When customers exhibit high levels of attraction, structural constraints might be offset or nullified, leading to either more intense participation or more frequent visitation. Support for this idea comes from Son et al. (2008) who, using the constraints negotiation dual channel model, has demonstrated that constraints may be entirely offset by the positive influence of negotiation strategies.

The current study extends this idea, suggesting that attraction acts the same as motivation and negotiation in that attraction has motivational types of properties that may nullify the negative effects of structural constraints faced by the individual. For example, Deci and Ryan (1985) suggest that an individual who is intrinsically motivated will perform a behaviour regardless of the presence of structural constraints. The current study proposes, therefore, that attraction has properties that are intrinsically motivating, and allow the behaviour to occur to a desired level of intensity, even in the presence of structural constraints such as external obligations.

This position is supported by Shaw (1985) who proposes that the absence of perceived judgmental evaluation is a significant factor in determining whether an individual considers something to be leisure or non-leisure. In other words, if an individual is worrying that they may not meet the demands of others (for example, family commitments), it may translate into guilt. However, this guilt may be offset in certain circumstances when the activity is important and pleasurable enough for an individual to become either detached from, or more able to negotiate, external obligations.

Samdahl (1992) has explained that leisure activities allow us to take off the various masks we wear and forget about an audience's reaction to a performance. Therefore, Samdahl (1992) argues we are all actors in life who are socially obligated by the mundane roles that we have to perform, but that we can detach ourselves from these roles by immersing ourselves in leisure. In the current study, group fitness classes appear to provide a break from everyday worries and expectations placed on an individual by others (in their life's sphere) through the individual's attraction to the activity.

The process by which an individual who is highly attracted to a behaviour or activity may detach from the concerns of not meeting the expectations of others may be linked to the nature of the experience itself. A euphoric state can be motivated by hedonic pleasure[101] and may in certain circumstances trigger a peak experience (Ellis, 1973; Maslow, 1968; Csikszentmihalyi, 1975). Csikszentmihalyi (1975) has proposed

[101] In the current study, this is similar to *attraction*.

a related concept referred to as flow, with one of the components of flow being loss of sense-of-self. Flow may be experienced when a person temporarily reaches a higher state of consciousness and becomes caught up in the flow, which disconnects them from their sense-of-self. This disconnection has clear parallels with the idea of leisure for pleasure, a state-of-mind of hedonic pleasure (Selin, 1988). In the current study, this may be expressed when the individual who is focused on their external obligations finds them offset when the intensity of their participation is activated by their higher level of attraction to the behaviour. This may then lead to a more pleasurable experience, an experience of disconnection that in many ways self-negotiates the external constraints the individual may face.

In terms of the current study, group fitness classes might offer individuals who have higher levels of attraction to them the opportunity to nullify structural constraints. This may be because the importance and pleasure derived from group fitness classes allow customers to express themselves in an experience that is at least temporarily removed from their day-to-day life. This can be seen in the link between attraction and intensity, which provides the very much needed freedom and stimulation away from a life otherwise constrained by external social control. Instead, attraction allows an individual's whole self to surrender to the experience (Wilson, 1981). In contrast to highly involved customers, with high levels of attraction, less involved customers with lower attraction to the behaviour may participate or visit at a lower level, and may ultimately defect in the presence of external obligations, as their attraction is not strong enough to offset the effect of these constraints.

This may help to explain why variation in reporting and negotiating constraints occurs, as observed by Jackson et al. (1993) in his proposition 2[102]. Proposition 2 indicates that the direction of the relationship (either positive or negative) can be explained due to variation in experiences. Therefore, the difference between structural constraints exerting a positive influence on loyalty in the current study compared to research by Kyle et al. (2003) who found a negative influence on loyalty could be linked to what Jackson et al. (1993) refer to as simple variation between individuals in

[102] Proposition 2 states, variations in the reporting of constraints can be viewed not only as variations in the experience of constraints but also as variations in success in negotiating them.

reporting and dealing with constraints. Accordingly, for highly involved customers of group fitness classes, the structural constraints they face may, surprisingly, not be expressed in terms of reduced loyalty.

Service quality. Attraction was also found to be an important mediator between outcome quality and both intensity of participation and frequency of visitation, providing support for H9F. Attraction to a given activity or behaviour can be regarded as an expression of intrinsic motivation, with classes at the centre providing an important and pleasurable experience with which the individual will engage without the want or need of external rewards (Deci & Ryan, 1985).

Internal motivational processes, according to Lewthwaite (1990), activate intensity or energise observable behaviour. In line with this argument, the current study shows that outcome quality may lead to more intense workouts when it is mediated by attraction. Furthermore, the relationship between outcome quality and frequency of visitation is mediated by attraction. In both instances of intensity of participation and frequency of visitation are influenced by the relationship between outcome quality and attraction. The activity is carried out because of its intrinsic worth manifested in the importance and pleasure derived from participating. This is a key area of which management should be aware. The findings of the current study suggest that if outcome quality (social, psychological or physical) is diminished due to service deficiencies, higher levels of attraction for some customers may offset those service deficiencies, as opposed to customers with lower levels of attraction, who may switch memberships for example, when outcomes are not attained.

5.4.2 Sign value, centrality and satisfaction are important mediators at the early stage of loyalty

Service quality. Sign value and centrality were significant mediators between all of the service quality factors and attitudinal loyalty. In this study sign value and centrality tended to be most powerful at the attitudinal stage of loyalty and to some extent the conative stage of loyalty. For example, all service quality factors influenced sign value and centrality which led to higher levels of attitudinal loyalty, supporting

H9C. In addition, the relationships between both physical environment quality and staff interaction quality and conative loyalty were significantly mediated by sign value, supporting H9D.

Therefore, sign value, centrality and satisfaction were important mediators between all three service quality factors and attitudinal loyalty. This is consistent with much of the literature in sport and recreation settings, in which sign value and centrality are important predictors of loyalty. Havitz, Dimanche, and Bogle (1994), for example, found that a large proportion of customers attend health and fitness centres because it has meaning for them as individuals, reflecting who and what they are. Likewise, Murray (2000) found that sign value and centrality predicted levels of recommendation of the centre.

The current study acknowledges these findings and extends the literature on sign value showing that the meaning customers attribute to participation can be used to offset service deficiencies, allowing attitudinal loyalty to remain intact. As a mediator in the current study, centrality appears to offset service deficiencies, allowing customers to continue to experience attitudinal loyalty. Similarly, satisfaction in the current study has been found to play a mediating role between service quality and loyalty. In public sports and leisure centres, for example, one of the main findings in Murray and Howat's (2002) study was that satisfaction mediated the relationship between service quality and future intentions to recommend the centre. Consistent to Murray and Howat (2002) one of the main findings reported by Alexandris et al. (2004b) showed satisfaction mediated the relationship between service quality and psychological commitment. This has been found in other service environments, with Anderson, Fornell and Lehmann (1994) and Fornell (2007) all indicating that satisfaction mediates the relationship between service quality and loyalty.

To explain the findings of the current study supporting the extant literature, Oliver (1997) suggests that episodes of dissatisfaction experienced by customers may result in attitudinal shifts. In other words, based on experiences within the centre (or fitness class) shifts may occur from satisfaction to dissatisfaction, negatively impacting on attitudinal loyalty. Applying this idea of attitudinal shifts to the findings of this study,

and focussing on group fitness classes, it appears that customers who have higher levels of sign value, and/or centrality or have a greater level of satisfaction with the classes are more resilient to service deficiencies that may result in attitudinal shifts. In other words, these mediators can offset service deficiencies allowing attitudinal loyalty to remain intact.

In contrast to attitudinal loyalty, only sign value and satisfaction were important mediators between service quality (physical environment quality and staff interaction quality) and conative loyalty. Conative loyalty is more deeply ingrained by an affective attachment of the centre (Oliver, 1999). For example, Lee et al. (2007) suggest that conative loyalty leads to behavioural loyalty. Ultimately, this may indicate that service deficiencies at the centre are less likely to result in discontinuing, because the benefits of remaining at the centre may outweigh the costs involved in switching due to a deep attachment to the centre such as potential loss of relationships (for example, with staff members) as a result of discontinuing membership at the centre (Jones et al., 2007).

Intrapersonal constraints

H8A was supported, with centrality being found to significantly mediate the relationship between negative physique internalisation (intrapersonal constraint) and attitudinal loyalty, indicating negative physique internalisation leads to low levels of centrality resulting in negative attitudes towards the centre that have their origin in how the customer feels about the way they look.

To explain this finding, Kyle & Mowen (2003) report that customers who find an activity is a central part of their lives tend to have more specific needs concerning their leisure behaviour. For example, in the current study, this may be reflective of a customer feeling their physique is being negatively evaluated and therefore blaming management because the centre does not tailor to their specific need for more privacy.

The Kyle et al. (2003) study went on to propose that individuals exhibiting high levels of centrality are more critical of the actual service. Therefore, relating this finding to the findings of the current study, customers may feel management of the

centre can and should do more to avoid them feeling like they are on show when they exercise. Mirrors could be removed or even the location of the group fitness room (which was opposite the weights room).

In contrast, the positive relationship between physique affirmation (feeling good about one's appearance) and attitudinal loyalty was mediated by sign value. One reason for this finding may be that appearance based motives (such as physique affirmation in the current study) are extrinsically motivated as suggested by Ryan et al. (1997), that is, that physique affirmation refers to a feeling that one's physique is being seen positively by others. If this is true, the fact that the relationship between physique affirmation and attitudinal loyalty would be mediated by sign value makes inherent sense as sign value is associated with extrinsic motivation (Dimanche & Samdahl, 1994) explaining why attraction was not found to be a significant mediator in the relationship between physique affirmation and attitudinal loyalty, as attraction appears to describe more intrinsic motives for the individual. It would appear that for group fitness classes, there may be two expressions of involvement – intrinsic, as expressed by attraction, and extrinsic, which is expressed by sign value linked to participation in a behaviour that is more motivated by external rewards, such as social recognition.

Analysis of the data supports the contention in the current study that constraints need not be fully negotiated for involvement in a behaviour or activity to occur. Although Scott (1991) has claimed that for involvement to occur, constraints must be fully negotiated, an idea which Jackson (1993) used to develop a hierarchical model of leisure constraints, the current study indicates that many of the constraints experienced by participants have not been fully negotiated (for example, negative physique internalisation). Participants in the sample were therefore still participating in the presence of, purportedly, insurmountable constraints.

In summary, the findings of the current study highlight the important role of attraction as both a direct and indirect predictor of behavioural loyalty. This finding was unexpected, given that McIntrye (1989) proposed that more highly involved individuals would exhibit greater sign value and centrality, but lower levels of

attraction. The study also supports the importance of sign value and centrality as mediators that influence attitudinal and conative stages of loyalty. However, in terms of behavioural loyalty, attraction continually increases in importance as a mediator. Attraction (reflective of intrinsic motivation towards the behaviour), therefore, significantly influences the behavioural stage of loyalty, whereas centrality and sign value (sign value being reflective of extrinsic motivation) appear to be less important for the actual behaviour.

5.4.3 Constraints that block loyalty

In contrast to the relationships discussed so far, direct relationships between individual/psychological constraints and conative loyalty as well as intensity of participation were not found to be significantly mediated by any aspect of involvement by the individual. Similarly the relationship between lack of partners and frequency of visitation was not mediated by involvement. Clearly some constraints can completely block the behaviour (in this case participation in group fitness classes).

Continuing the motivational focus, individual/psychological constraints may be seen as a demotivating force that blocks the level of intensity of participation. Consequently, a centre that has a high proportion of customers who exhibit significant levels of individual/psychological constraint, may find both their attachment to the centre and ability to reach a desired level of intensity of participation reduced. In these circumstances centres may ultimately lose customers.

Likewise, customers who are limited by social allies, such as a friend to attend the centre with, may also be more likely to reduce, and ultimately cease, their participation. Unfortunately, it seems there is little management can do in these instances, especially with regards to individual/psychological constraints, and defection may be high due to a range of intrapersonal and interpersonal constraints. In these circumstances, a temporary health issue, such as the common cold, which prevents a customer from visiting the centre for a week or two could lead to defection if the individual feels he or she has lost fitness in comparison to their peers.

An important conundrum, however, is why negative physique internalisation's relationship with attitudinal loyalty was negatively mediated by centrality, whereas other intrapersonal constraints (i.e., individual/psychological constraints) completely block attachment to the centre, even when customers experience high levels of involvement (i.e., no mediation exists). A reason may be found if we consider that SPA, as an intrapersonal constraint, operates in very different ways from other intrapersonal constraints, such as Alexandris and Carroll's (1997a) individual/psychological constraints. To appreciate the impact of SPA as a constraint, we must consider the dialectic nature of SPA.

It was proposed in this study that physique affirmation and negative physique internalisation could be seen as directly opposed, therefore these two components of SPA have a dialectic nature. This was based on the idea that links SPA to identity theory (McCall & Simmons, 1966) to demonstrate that the need of an individual to express and affirm their social identity (physique affirmation) can come at a cost of exposing their private identity (negative physique internalisation). However, the findings of the current study also suggest that group fitness customers are strongly influenced by physique affirmation, which appears to dominate or override perceptions of negative physique internalisation.

The dominating role of physique affirmation over perceptions of negative physique internalisation may be expressed as exercising for appearance oriented reasons. This appears driven by external motivators, such as social recognition (Frederick & Ryan, 1993; Tsorbatzioudis et al., 2006). In many ways physique affirmation may be seen as an appearance-oriented form of social emulation, similar to Veblen's (1899) notion of pecuniary emulation[103], but via an emulation and confirmation of ones' physique with another, rather than against their financial status. If positive attributes of one's physique are affirmed through this emulation, participation is rendered meaningful (Turner et al., 1987).

[103] Originally argued by Veblen (1899) to represent how lower classes emulated the American elite, in order to display status. In the current thesis it is proposed pecuniary emulation refers also to any resources value or worth (e.g., appearance).

5.5 Theme 4

Theme 4 Behavioural intentions (conative loyalty) may not be the best predictor for participation of customers at health and fitness centres

The final theme will focus on gaps in the link between conative and behavioural loyalty. In order to explain how these gaps may be overcome in a health and fitness context, the direct links between both involvement and satisfaction on loyalty measures will be assessed.

H10: Attitudinal loyalty will lead to conative loyalty, which in turn will lead to behavioural loyalty.

H7D: Attraction will predict intensity of participation and frequency of visitation.

H7A: Sign value will positively predict both attitudinal and conative loyalty.

H7B: Risk will negatively predict both attitudinal and conative loyalty.

H7C: Centrality will positively predict attitudinal loyalty.

H3: Satisfaction will positively predict both attitudinal and conative loyalty, but not behavioural loyalty.

In the current study attitudinal loyalty directly and significantly predicted conative loyalty. This has been found in similar studies, for example Lee et al. (2007) who reported attitudinal loyalty was directly and positively related to conative loyalty. In the current study conative loyalty predicted only one of the behavioural measures of loyalty, the length of visit (duration of visitation).

There is theoretical justification for testing the relationship between attitudinal loyalty and behavioural loyalty directly, and bypassing the assessment of conative loyalty altogether. For example, Backman and Crompton (1991a, 1991b) have identified a strong direct link between attitudinal loyalty and behavioural loyalty. Moreover, Park (1996) reports a strong relationship between attitudinal loyalty and the length of duration of visitation for adult fitness programs.

In the current study, attitudinal loyalty predicted both the number of visits a customer makes (frequency of visitation) as well as the length of time spent at the centre (duration of visitation). The current study also suggests that attitudinal loyalty may be

a superior predictor of duration when compared to conative loyalty. In essence, this study proposes that attitudinal loyalty is more able than conative loyalty to predict measures of behavioural loyalty.

This idea reflects both Backman and Crompton's (1991a, 1991b) and Day's (1969) two dimensional view of loyalty, which directly links attitudinal loyalty to behavioural loyalty. Indeed, the majority of research links attitudinal loyalty to behavioural loyalty (for example, Backman & Crompton, 1991a, 1991b; Park, 1996; Pritchard et al., 1992). Likewise, the current study indicates a strong attitudinal-behavioural relationship.

Oliver (1999), on the other hand, proposes and conceptualises an attitude-intention-behaviour relationship to explain loyalty. Although in the current study the attitude-intention (conative) link was confirmed, and an attitude-behaviour link was also found, intention (conative) was not a good predictor of behaviour. Agustin and Singh (2005) provide a possible explanation for this, suggesting that loyalty may alter according to context, becoming more complex in certain situations. Since health and fitness centres face a range of intrapersonal constraints (for example individual/psychological) not evident in a number of other consumer environments, reasons for loyalty can be quite complex, as well as relationships between types of loyalty, such as attitudinal and behavioural.

Oliver (1999) suggests that conative loyalty may be a precursor to different aspects of a customer's behaviour. The intention-behaviour link is well documented, with Ajzen (1985) proposing in the Theory of Planned Behaviour that intentions lead to specific behaviours. Therefore, constraints that cannot be overcome by high levels of involvement may provide an answer explaining why conative loyalty was a poor predictor of behavioural loyalty in the current study, which found that intentions did not always predict behaviour (Alexandris & Stodolska, 2004).

As per findings in Theme 3 (5.5.3), in group fitness classes, individual/psychological constraints blocked conative loyalty as well as the intensity of participation, even when customers were highly involved in classes, an observation supported by an assessment of the potential link that exists between conative loyalty and behavioural

loyalty. Such constraints lead to a breakdown of the conative-behaviour link, with the potential for customers who intend to continue at the centre to quit or discontine certain programs. This phenomenon may provide one explanation as to why the linear sequential structure of loyalty[104] proposed by Lee et al. (2007) was not fully supported in the current study.

An alternative perspective to explain this apparent break down in the sequential loyalty chain has been shown by Day (1969) who argues that customers who are truly loyal would express it both attitudinally and behaviourally. For example, consider two people who are about to buy a newer model of their existing car, which is a Hyundai. The first person considers buying a Hyundai car because it is cheap, exhibiting a cognitive reflection of attitudinal loyalty. The second person buys the Hyundai car because they are attached to the brand, exhibiting a more conative form of loyalty. If Oliver (1997) is correct in suggesting that attachment produces a stronger link to behaviour, the individual who is more attached to a brand would be more likely to buy the Hyundai car than a person with a cost orientation.

In some contexts, however, attitudinal loyalty is a stronger predictor of behavioural measures of loyalty. Such a context could be a preference for a particular health and fitness centre, which then may exert a stronger influence on subsequent behaviour. Indeed, Oliver (1997) recognised 'liking' as potentially being heavily influenced by both satisfaction and involvement. Both satisfaction and involvement may therefore trigger behavioural measures of loyalty.

5.5.1 Product loyalty and brand loyalty

A relevant point to consider, however, is whether a fitness patron is loyal to a specific fitness activity (such as a group fitness class) or to a particular fitness provider (Pritchard et al., 1999). In the current study, it was shown that loyalty is driven by both the product level (activity) and brand level (service provider). Researchers such as Iwasaki and Havitz (2004), Pritchard et al. (1999) and Park (1996) have typically viewed high levels of involvement (in the activity) lead to loyalty (to the brand).

[104] With attitudinal loyalty leading to conative loyalty leading to behavioural loyalty.

Consequently, in fitness classes people firstly may become involved with the activity, which may then lead to the formation of brand loyalty (or loyalty to the specific centre) at a later date. In the current study, involvement may be seen as reflective of the product and loyalty more reflective of the brand. The involvement construct plays a key role in behavioural loyalty at the product level. Although attitudinal loyalty was the strongest predictor of conative loyalty, involvement was the strongest predictor of behavioural measures of loyalty.

5.5.2 Involvement and satisfaction

As mentioned, attraction was found to be the most powerful direct predictor of intensity of participation, whereas attitudinal loyalty and conative loyalty failed to significantly predict intensity. Park (1996) also reports similar findings, with involvement being a stronger direct predictor than attitudinal loyalty of intensity of participation. In addition, attraction was also found in the current study to be the second strongest predictor (after outcome quality) of frequency of visitation. Again this is consistent with Park (1996) who showed a summative measure of involvement was the best predictor of how often customers visited the centre.

Likewise, sign value and centrality predicted attitudinal loyalty, with sign value also predicting conative loyalty. In contrast, risk also predicted both attitudinal and conative loyalty, but in a negative way (the higher the risk, the lower the attitudinal and conative loyalty). The results indicate that sign value and centrality are important facilitators of the early stages of loyalty (attitudinal and conative). Risk is also important to the early stages of loyalty formation, but was found to be a negative predictor of attitudinal and conative loyalty. This indicates that risk at too great a level will also negatively impact loyalty, leading to switching or defection from the centre, given the attitudinal-behaviour link outlined previously.

On the other hand, there is reason to suggest that risk may not actually exert a negative influence over attitudinal loyalty. Firstly, risk leading to dissatisfaction may be muted, as specific episodes of risk-based dissatisfaction might be dismissed due to both the preference toward the brand developed by customers (attitudinal loyalty), as well as the establishment of an affective bond to the centre, leading to a more binding

commitment to the centre (conative loyalty). Supporting this position, Oliver (1997) claims both involvement and satisfaction act to sustain attitudinal loyalty and to some extent conative loyalty. This was supported in the current study, with the most significant predictors of attitudinal loyalty being satisfaction and centrality. In addition, satisfaction was also found to be the greatest predictor of conative loyalty. Furthermore, satisfaction also predicted duration of visitation.

Extending this idea, a further weakness of the attitudinal-conative-behavioural chain has been proposed by Lee et al. (2007), who has reported that satisfaction has traditionally been a weak predictor of behavioural loyalty. This claim is not consistent with the current study, which found satisfaction to be a strong predictor of duration. This finding was similar to Murray's (2000) study on fitness centre participants, which also showed frequency of visitation was predicted by satisfaction. Murray's (2000) findings combined with the findings of the current study reveal that in certain situations customers who are satisfied tend to exercise more regularly and for longer periods at the centre.

The findings suggest that health and fitness centres are a distinct service context. For example, while Lee et al. (2007) found that satisfaction significantly predicted attitudinal and conative loyalty, but not behavioural loyalty, they were examining destination loyalty in recreational users of forest environments, quite contextually different from health and fitness settings. One explanation for why satisfaction predicts duration in the current study may be attributed to the nature of the group fitness classes which have a low duration, ranging between 45 minutes to one hour. Due to the relatively short duration, highly satisfied customers may choose to attend multiple classes (for example a Pump class followed by an Attack class). More satisfied customers, therefore, may spend longer periods of time at the centre. This parameter would not exist in settings such as that examined by Lee et al. (2007), and the result suggests clear contextual distinctions in loyalty formation based on the setting.

In summary, whilst Oliver (1997) proposed conative loyalty should be the strongest predictor of behavioural loyalty, the evidence from the current study does not support

this. It points not to a satisfaction-loyalty trap as argued by Reicheld (1996), but instead to a conative-behavioural-loyalty trap. The link of conative loyalty to behavioural loyalty is at best weak in the context of health and fitness centres, with attitudinal loyalty, attraction and satisfaction all being far more noteworthy.

5.6 Identifying the limitations of the study

5.6.1 Conceptual limitations

Although a number of limitations and assumptions have been noted throughout the study, it is nevertheless worthwhile to address some of the conceptual limitations. The conceptual issues need to be addressed and considered in any future research assessing loyalty.

Kyle et al. (2006), while claiming that commitment represents the attitudinal construct of loyalty, conceptualised commitment as consisting of the same three distinct components proposed in Oliver's (1997) conceptualisation of loyalty. Affect, cognitive and conative, from the perspective of Kyle et al. (2006), refer to commitment conceptualised as a recreationist's attitudinal component of loyalty and reflect a recreationist's attitudes. In this interpretation, conative commitment represents attitudinal loyalty (Kyle et al., 2003; Kyle et al., 2006). In contrast, Oliver (1997) indicates that cognitive, affective and conative are distinct stages of loyalty.

These discrepancies between the two camps could lead to some researchers who use conative measures to claim participants are attitudinally loyal, as Kyle et al. (2006) do. Other studies using the same conative measure could argue, on the other hand, that participants demonstrate conative loyalty following Oliver (1997) and other researchers, such as Lee et al. (2007). Therefore, although the current study takes the perspective of Lee et al. (2007), it must be noted that the two views are conceptually distinct, with this issue requiring more clarity to ensure understanding.

5.6.2 Sample limitations

The sample in the current study only includes existing customers and not ex-members, which potentially limits the generalisability of the findings. It also raises questions as to whether existing customers are accurate representations of a complete

range of involvement and constraints, as they have potentially already demonstrated the negotiation of at least some constraints by participating, and as well may be higher in underlying involvement. Future research should measure both current customers and ex-members in order to access a more representative sample of the fitness population. Qualitative studies involving interviews with ex-members about why they left the centre, and what they experienced in relation to constraints would provide valuable insight into the fitness class experience. Similarly, more detailed examination of customers' levels of involvement and satisfaction from those that exhibit constraints, but who are still participating in classes, could be compared to ex-members in order to provide rich insight into the process of constraint negotiation in fitness classes.

5.6.3 Limitations to the statistical techniques used within the current study.

This study employed a series of regression analyses, with a Sobel's (1982) test to assess mediated regression. Whilst appropriate for testing each of the research hypotheses in the study, future research may find it far more appropriate to employ Structural Equation Modelling (SEM) to assess the inter-relationships among the variables. SEM simultaneously assesses the independent variables and their overall relationship in a proposed model, whilst also considering measurement errors. This has many advantages, allowing researchers to test a model to determine its overall fit to the data, and allowing comparison of a proposed model to alternative models (Tabachnick & Fidell, 2008).

Finally, the current study made an assumption that interpersonal relationships play a negative role in participation. However, this may not be entirely accurate given that significant others may also help to sustain behaviour as per the Theory of Planned Behaviour (Ajzen & Fishbein, 1980, 1988; Alexandris et al., 2007). Similarly, Murray (2002) has indicated that the presence of an ally, such as a friend, could reduce the negative influence of SPA in health and fitness centres. Therefore, future research could assess the positive influence of family, friends and significant individuals on facilitating exercise.

5.7 Marketing and management implications

This study has a number of direct management and marketing implications for health and fitness centres. For example, outcome quality was shown to elicit affective responses, such as attraction and satisfaction. A management focus on showing customers how to attain their desired outcomes or goals appears to be a central factor in whether customers maintain their relationship with the centre (Howat et al., 2008). A management focus on outcome quality may therefore result in increased retention. This position is supported in the current findings, which indicate that outcome quality predicts all measures of loyalty, and is linked to attraction.

The study also proposes that physical environment quality is more likely to predict the cognitive side of satisfaction and not its affective side. However, several researchers have found that the physical environment influences affective components (Wirtz & Bateson, 1999; Tsiotsou, 2006). Therefore, this position warrants further investigation. The physical environment may be one of the most tangible elements of a service, and perhaps is the most controllable management component of a health and fitness centre. If we consider that physical environment quality may trigger affective responses as per Tsiotsou (2006), management would be wise to consider use of the physical environment to assist in retaining customers.

An interesting example of this may be seen in night clubs and some bars with dance floors, podiums and stages. When people dance on podiums in the club, sign value may be operating, as people are expressing themselves openly in front of an audience. Theoretically, this style of physical environment activates sign value for some individuals in night clubs, leading to higher loyalty.

To date health and fitness centres do not appear to have considered how to maximise the potential benefits of customer's sign value in contributing to developing their attitudinal and conative loyalty. Night clubs optimise the use of the physical environment to induce sign value which may also improve the perception of other aspects of the service, such as outcome quality (having fun) and staff interaction quality (social interaction with bar staff). There is no reason why health and fitness centres cannot do the same.

Likewise, in health and fitness centres, certain features of the service can be adapted to reflect a more contemporary image. Therefore, location of the centres could be considered in terms of marketing. For example, a centre positioned on a busy beach front or in a busy shopping mall would not only appeal to people located in that area, but to many other customers, such as those with high levels of sign value who welcome a social audience outside that of the service. This must be balanced, of course, since a public demonstration of self may also act to constrain participation. In order to attract as many customers as possible all constraints need to be taken into consideration.

One solution may be to sub-divide the centre and have areas which are in view of the public and areas which are more private. Many fitness centres now do this by the creating of 'ladies gym only' rooms within co-gendered health and fitness clubs. Alternatively, those high in physique affirmation may prefer to exercise in front of other members, a preference which may exert more influence than the perceived risk associated with being evaluated negatively.

It was proposed in the current study that the relationship between physique affirmation and attitudinal loyalty was linked by sign value. Therefore, a need to express oneself in front of an audience may be a strong desire for many health and fitness customers. This was evident also in Havitz and Dimanche (1990) and Havitz et al. (1994). As highlighted by Havitz et al. (1994), the pertinent predictor specific to the health and fitness context is the symbolic value that customers gain from participating in group fitness classes (sign value). However, low levels of sign value have been exhibited in other contexts (Dimanche et al., 1991; Havitz & Howard, 1995), which again highlights the importance of sign value as one of the unique elements of health and fitness centres. For example, sign value may be an important predictor in group fitness classes where activities are organised to be more individualistic and self expressive (Frederick et al., 1994). The current study could be adapted to study swimming pools where there may also be a high level of sign value due to the features outlined by Frederick et al. (1994) and Havitz and Dimanche (1990).

Another threat to loyalty is negative physique internalisation. However, its impact in the current study was offset by centrality. Providing club magazines, regular updates of personal training programs and regular contact between staff and customers may ensure that the health and fitness centre becomes a central part of a person's everyday life. Support facilities, such as cafes and crèches linked to the centre may facilitate this. Such an environment allows customers to socialise and become more comfortable with other members with whom they may begin to socialise outside of the centre, enabling the centre to become embedded in customers' daily lives, furthering the sense of centrality.

The current study shows staff interaction quality is a better independent predictor than outcome quality when assessing attitudinal and conative loyalty. This further supports the idea that more contact hours, and more quality interaction between staff and customers could be encouraged by management. A simple card sent in the post on a customer's birthday by the health and fitness centre may help in developing strong bonds between the customer and centre. Activities outside the confines of the health and fitness centre could also be organised. These gatherings could include group outings, parties, and social events that allow the staff members and customers to get to know each other and establish a personal attachment. Managers could focus marketing on the symbolic value and how central exercising at this particular centre is for customers. Assael (1984) has noted that a main reason customers are likely to stay with an organisation is due to their level of involvement. As the current study indicates, involvement factors, including sign value and centrality, are dominant mediators of constraints and service quality dimensions. Therefore, health and fitness centres could consider ways to increase levels of involvement of customers in their classes.

5.8 Directions for future research

The first direction for future research could test the relationship between satisfaction and involvement. Therefore, a path between involvement and satisfaction can be added.

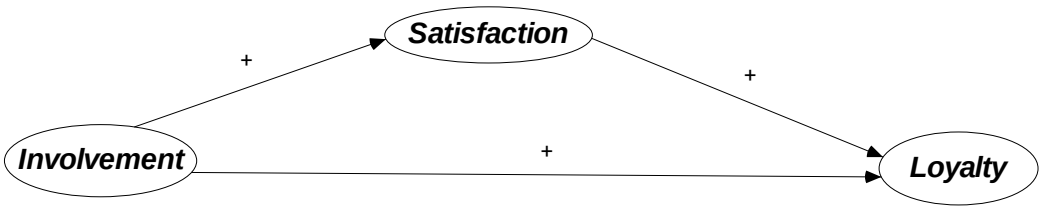


Figure 5.2: A model of the relationship between involvement and satisfaction in a health and fitness context.

Figure 5.3 indicates that satisfaction mediates the relationship between involvement and loyalty. The direction of the path shows involvement predicts satisfaction. It is generally agreed that Oliver's (1997) satisfaction scale is the standard measure for consumer satisfaction across a wide range of contexts. In contrast, the argument presented in the current findings indicates that involvement is more related to the product (activity), which can translate into loyalty to the brand (organisation). This would infer customers who are highly involved are also likely to be satisfied with their service provider and therefore loyal advocates of the brand. If we consider this argument as accurate, the study indicates that there are multiple motives and benefits that explain why people participate. Consequently, more attention needs to be directed at how benefits may be fulfilled. This is the justification for the proposed direction of the involvement and satisfaction link.

Findings of future research may indicate support for involvement in the activity leading to loyalty to the centre. However, the assumption that involvement leads to satisfaction may be reversed if satisfaction was to be framed in relation to the activity (which is rarely, if ever the case), and not to the brand (which is almost always the case). Therefore, a key area of future research may be an investigation of satisfaction directed at the product level. Findings could potentially be used to understand positions such as Fornell (2007) who claimed that a direct link between quality and loyalty does not exist, with only an indirect link occurring through satisfaction. This study proposes an alternative position: that customers who are highly involved in an activity may also be more satisfied, to the point that a direct link between service quality and loyalty may become non-significant. In essence, this position argues that for customers specialised in a particular activity (such as Body Pump) that has a regulated performance standard, service quality may no longer directly influence loyalty. This is an interesting area that warrants further investigation.

5.8.1 Past behaviour as a measure of behavioural loyalty.

In terms of measures of behavioural loyalty, past behaviour or habit should also be measured. This was outside the scope of the current study, however. Nevertheless, it is a potentially important area that deserves attention. For example, management may identify elements that exist in the service that are influenced by the length that a customer has been with the organisation. Linking past behaviour with other measures, a future study may wish to look at satisfaction and how often customers attend a centre, comparing both new customers and long term customers. Findings may indicate that new customers are satisfied with the service and therefore make regular visits, but longer term customers may actually be more critical of service elements and therefore decrease how often they attend the centre. This finding can be checked alongside involvement, and whether customers who have renewed their membership more than once are more critical of the service attributes.

The results of this study have the potential to enhance our understanding of constraint negotiation particularly within health and fitness centres. The research demonstrated the fact that involvement has motivational properties, but most importantly, acts as a way for the individual to negotiate through constraints. A deeper understanding of involvement and how it works as a constraint negotiation mechanism would be worthy of more attention.

The findings of the current study show that attraction appears to offset constraints that influence behaviour, whereas sign value and centrality appears to offset constraints that influence attitudinal and conative loyalty. This may suggest involvement affects loyalty in different ways to offset constraints, therefore potentially explaining how involvement works as a constraint negotiation mechanism enabling customers to remain loyal. Of specific note would be a more detailed consideration of which components of involvement have the greater potential to facilitate constraint negotiation in a range of contexts beyond the health and fitness setting.

5.9 Conclusion

In conclusion, both the overarching service quality and constraints approaches to considering exercise and physical activity adherence (or loyalty) have their own distinct developmental history. This study examined them together in an appropriate context that allowed both to be assessed (health and fitness centres). Both service quality and constraints to participation were found to exert a significant influence over the different stages of loyalty. This indicates that both fields of enquiry are equally noteworthy when assessing loyalty in health and fitness settings. However, as the dominant approach in the literature from a managerial perspective has tended to be service quality, the current study indicates that ignoring the role that constraints would not provide a true representation of the loyalty construct as applied to health and fitness centres.

In the current sample, intrapersonal and interpersonal constraints completely blocked initial stages of loyalty, with intrapersonal constraints also blocking some behavioural loyalty measures. In contrast, structural constraints were notable constraints in terms of their affect on behavioural loyalty in predicting frequency of visitation and intensity of participation when mediated via attraction. Clearly, constraints faced by customers impact on their loyalty and this needs consideration by management as it impacts on their overall level of customer retention – a major issue for health and fitness clubs.

The current study shows group fitness involvement factors consisting of attraction, sign value and centrality are significant mediators between service quality factors and loyalty. It was therefore concluded that attraction, sign value, and centrality are significant mediators that are found to impact both service quality and constraints in a health and fitness context. This finding infers that in the presence of constraints, a person may still form attitudinal, conative and behavioural loyalty. Therefore, beyond both a focus on service quality and constraints it appears that it is through the mechanism of enduring involvement that in most instances an individual maintains an on-going loyalty. Moreover, this relationship suggests that without the presence of important factors like sign value, centrality, and attraction loyalty stages may break down. The current study indicates that understanding both service quality and constraints, together with an awareness of the unique role of involvement, provides a more complete understanding of loyalty in private health and fitness centres.

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Appendices

APPENDIX 1:
THE CSSIL QUESTIONNAIRE.

UniSA

Section 1:

We would like to know about your opinions of the centre you are visiting. All of the following questions will relate to your experience at this specific centre

NOTE: Example Only

Please circle a number for each statement *(but please make sure that you circle one number only for each statement)*		Your level of agreement						
		Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
1	Attending group fitness classes is very important to me	1	2	3	4	(5)	6	7

A: Your experience with staff

Please indicate how you feel this centre performed compared to your expectations Please circle one number only for each statement		Your level of agreement						
		Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
1	Employees respond quickly to members' requirements	1	2	3	4	5	6	7
2	Employees provide individualised attention	1	2	3	4	5	6	7
3	Employees work enthusiastically	1	2	3	4	5	6	7
4	Employees are polite	1	2	3	4	5	6	7
5	Employees respect members' needs	1	2	3	4	5	6	7
6	Employees help members feel more comfortable	1	2	3	4	5	6	7
7	Employees are knowledgeable	1	2	3	4	5	6	7
8	Employees are trustful	1	2	3	4	5	6	7
9	Employees are reliable	1	2	3	4	5	6	7

B: The physical aspects of this health and fitness centre

Please indicate your level of agreement with each of the statements about this centre Please circle one number only for each statement		**Your level of agreement**						
		Strongly disagree	**Disagree**	**Slightly disagree**	**Neither agree nor disagree**	**Slightly agree**	**Agree**	**Strongly agree**
1	Facilities are attractive	1	2	3	4	5	6	7
2	Facilities have up-to-date equipment	1	2	3	4	5	6	7
3	Facilities are spacious	1	2	3	4	5	6	7
4	Facilities are clean	1	2	3	4	5	6	7
5	Equipment is in good condition	1	2	3	4	5	6	7
6	There is a nice atmosphere in the facility	1	2	3	4	5	6	7
7	Other customers do not affect the service negatively	1	2	3	4	5	6	7

C: Benefits attained

Please indicate your level of agreement with the following statements about the benefits you attained at this centre Please circle one number only for each statement		**Your level of agreement**						
		Strongly disagree	**Disagree**	**Slightly disagree**	**Neither agree nor disagree**	**Slightly agree**	**Agree**	**Strongly agree**
1	Increase my energy	1	2	3	4	5	6	7
2	Improve my health	1	2	3	4	5	6	7
3	Improve my mood	1	2	3	4	5	6	7
4	Improve my psychological well-being	1	2	3	4	5	6	7
5	Improve my fitness level	1	2	3	4	5	6	7

D: Satisfaction

Please indicate how satisfied you are with this centre Please circle one number only for each statement		**Your level of agreement**						
		Strongly disagree	**Disagree**	**Slightly disagree**	**Neither agree nor disagree**	**Slightly agree**	**Agree**	**Strongly agree**
1	I am satisfied with my decision to become a member of Zest/Goodlife health club	1	2	3	4	5	6	7
2	My choice to become a member of Zest/Goodlife health club was a wise one	1	2	3	4	5	6	7
3	If I was to chose a health and fitness centre again, I would chose a different centre	1	2	3	4	5	6	7
4	I feel guilty about my decision to become a member of Zest/Goodlife health club	1	2	3	4	5	6	7
5	I am not happy that I became a member of Zest/Goodlife health club	1	2	3	4	5	6	7
6	I am sure that it was the right thing to be a member of Zest/Goodlife Health club	1	2	3	4	5	6	7

Section 2:

Now we would like to know about your personal thoughts and feelings about your participation in group fitness classes at this centre

A: Feelings towards your physical appearance

Please indicate which of the following statements are characteristic or true of you in the group fitness class Please circle one number only for each statement		**Characteristic of you**				
		Not at all true	**Slightly true**	**Moderately true**	**Very true**	**Extremely true**
1	I am comfortable with the appearance of my physique/figure	1	2	3	4	5
2	I would never worry about wearing clothes that make me look too thin or overweight	1	2	3	4	5
3	I wish I wasn't so uptight about my physique/figure	1	2	3	4	5
4	There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively	1	2	3	4	5
5	When I look in the mirror, I feel good about my physique/figure	1	2	3	4	5
6	Unattractive features of my physique/figure make me nervous In group fitness classes	1	2	3	4	5
7	In the presence of others, I feel apprehensive about my physique/figure in the class	1	2	3	4	5
8	I am comfortable with how fit my body appears to others in the class	1	2	3	4	5
9	It would make me uncomfortable to know others were evaluating my physique/figure in the class	1	2	3	4	5
10	I am a shy person in the class when it comes to displaying my physique/figure to others	1	2	3	4	5
11	I usually feel relaxed when it is obvious that others are looking at my physique/figure	1	2	3	4	5
12	When I am dressed for the gym, I often feel nervous about the shape of my body	1	2	3	4	5

Section 3:

Now we would like to know about the different barriers to exercise that you may have experienced when trying to attend this centre

A: Barriers to exercise

People have many reasons for not participating in group fitness classes. **Please evaluate the importance of the following statements as potentially, or actually limiting or prohibiting your participation in group fitness classes** Please circle one number only for each statement		**Importance to you**						
		Not important	**Slightly important**	**Somewhat important**	**Moderately important**	**Important**	**Very important**	**Extremely important**
1	My work commitments allow me the time to participate	1	2	3	4	5	6	7
2	I do not have time because of my family commitments	1	2	3	4	5	6	7
3	I do not have time because of my social commitments	1	2	3	4	5	6	7
4	I do not want to interrupt my daily schedule	1	2	3	4	5	6	7
5	The group fitness timetable does not fit with my own schedule	1	2	3	4	5	6	7
6	Exercise makes me feel tired	1	2	3	4	5	6	7
7	I am afraid of getting hurt	1	2	3	4	5	6	7
8	I feel too tired to exercise	1	2	3	4	5	6	7
9	I have health problems	1	2	3	4	5	6	7
10	I am not fit enough	1	2	3	4	5	6	7
11	I am not skilled enough	1	2	3	4	5	6	7
12	I do not feel confident to exercise	1	2	3	4	5	6	7
13	I do not like exercising in a gym setting	1	2	3	4	5	6	7
14	I do not know where to participate	1	2	3	4	5	6	7
15	I do not have anyone to teach me the activities I like	1	2	3	4	5	6	7
16	I do not know where I can learn the activities I like	1	2	3	4	5	6	7
17	Transportation takes too much time	1	2	3	4	5	6	7
18	I have no opportunities to exercise near my home	1	2	3	4	5	6	7
19	I do not have transportation	1	2	3	4	5	6	7
20	I cannot afford the membership any longer	1	2	3	4	5	6	7
21	I have nobody to do exercise with	1	2	3	4	5	6	7
22	My friends do not have time to do exercise	1	2	3	4	5	6	7
23	My friends do not like exercising	1	2	3	4	5	6	7
24	My friends are not interested in exercising	1	2	3	4	5	6	7
25	I am not interested in exercising	1	2	3	4	5	6	7
26	I participated in classes in the past and I did not like it	1	2	3	4	5	6	7
27	I do not like doing exercise	1	2	3	4	5	6	7

Section 4:

Now we would like to know how you feel about your involvement, your attitudes and your willingness to recommend this centre

A: Your Involvement

How do you feel about your involvement? Considering your own feelings, please indicate how much you agree or disagree with each of the following statements by circling the appropriate response number for each item Please circle one number only for each statement		**Your level of agreement**						
		Strongly disagree	**Disagree**	**Slightly disagree**	**Neither agree nor disagree**	**Slightly agree**	**Agree**	**Strongly agree**
1	I attach great importance to working out	1	2	3	4	5	6	7
2	When faced with choosing between health and fitness centres, I always feel a bit at a loss to make the right decision	1	2	3	4	5	6	7
3	I can say that working out interests me a lot	1	2	3	4	5	6	7
4	Where you work out tells people something about you	1	2	3	4	5	6	7
5	It is rather complicated to choose a health and fitness centre to work out at	1	2	3	4	5	6	7
6	For me, working out is a pleasure	1	2	3	4	5	6	7
7	Whenever I work out, I never really know if it is the right choice of health and fitness centre	1	2	3	4	5	6	7
8	Where I work out gives a glimpse of the type of person I am	1	2	3	4	5	6	7
9	It is annoying to work out at a health and fitness centre that is unsuitable	1	2	3	4	5	6	7
10	I gain personal pleasure by working out	1	2	3	4	5	6	7
11	I would be very upset after I had worked out if my choice of health and fitness centre had proved poor	1	2	3	4	5	6	7
12	Working out is an activity that leaves me indifferent	1	2	3	4	5	6	7
13	When I work out, it's like giving a gift to myself	1	2	3	4	5	6	7
14	It is not a big deal if you choose a poor health and fitness centre	1	2	3	4	5	6	7
15	You can tell a lot about a person by whether or not he/she works out	1	2	3	4	5	6	7
16	It would be too costly for me to stop working out now	1	2	3	4	5	6	7
17	I can't imagine my life without working out	1	2	3	4	5	6	7
18	When I work out it totally absorbs me	1	2	3	4	5	6	7
19	I find that working out dictates and directs my life outside of actually the activity itself	1	2	3	4	5	6	7

B: Your attitudes

Please indicate your attitudes towards exercising at this centre. Considering your own feelings, please indicate how much you agree or disagree with each of the following statements Please circle one number only for each statement		**Your level of agreement**						
		Strongly disagree	**Disagree**	**Slightly disagree**	**Neither agree nor disagree**	**Slightly agree**	**Agree**	**Strongly agree**
1	This centre means a lot to me	1	2	3	4	5	6	7
2	I enjoy working out at this centre more than any other place	1	2	3	4	5	6	7
3	I am very attached to this centre	1	2	3	4	5	6	7
4	It would be difficult to change my beliefs about this centre	1	2	3	4	5	6	7
5	Even if close friends recommended another place, I would not change my preference for this centre	1	2	3	4	5	6	7
6	I would not easily change my selection of this centre as a recreation site	1	2	3	4	5	6	7

C: Your recommendation

Please indicate how much you agree or disagree with each of the following statements Please circle one number only for each statement		**Your level of agreement**						
		Strongly disagree	**Disagree**	**Slightly disagree**	**Neither agree nor disagree**	**Slightly agree**	**Agree**	**Strongly agree**
1	I would recommend this centre to people who seek my advice	1	2	3	4	5	6	7
2	I would tell other people positive things about this centre	1	2	3	4	5	6	7
3	I would recommend this centre to my friends	1	2	3	4	5	6	7

Section 5: Your Details

In section 5 of the questionnaire we would like to know some more details about you and your use at this centre. For each of the following questions please ✓ one box only or provide information where required

1 What is your age?

_____ (Record your actual age)

2 My gender is?

1 ○ Male
2 ○ Female

3 What is your postcode? ☐☐☐☐

4 How far is the centre from your home?

1 ○ Less than 5 kms 2 ○ About 5 to 10 kms 3 ○ More than 10 kms

5 How do you usually get to the centre (Tick the box which shows the main method)

1 ○ Walk/jog 2 ○ Bicycle 3 ○ Private car
4 ○ Bus 5 ○ Other_____ (please specify)

6 Have you attended classes in the last three months?

1 ○ Yes (please go to Q7)
2 ○ No (please go to Q10)

7 Do you usually attend?

1 ○ Alone 2 ○ With a friend 3 ○ With a family member

8 Over the past four weeks, what is the main fitness class you have participated in at this centre? (Please tick one box only).

1 ○ Body Step 2 ○ Body Attack 3 ○ Body Jam
4 ○ Body Combat 5 ○ Body Pump 6 ○ Body Balance
7 ○ Pilates/Yoga 8 ○ Step (freestyle) 9 ○ Other_____ (please specify)

9 Which other classes have you participated in at the centre? (Please tick all that apply).

1 ○ Body Step
2 ○ Body Attack
3 ○ Body Jam
4 ○ Body Combat
5 ○ Body Pump
6 ○ Body Balance
7 ○ Pilates/Yoga
8 ○ Step (freestyle)
9 ○ Other_____
(please specify)

10 On average, how would you rate the 'intensity' of your exercise sessions?

1 ○ Low (e.g. Yoga)
2 ○ Moderate (e.g. Gentle cycling, weights, gentle swimming)
3 ○ Vigorous (e.g. aerobics, intensive cycling)

11 How often do you exercise in the classes?

1 ○ Once per week
2 ○ two times per week
3 ○ 3 times per week
4 ○ 4 times per week
5 ○ 5 times per week
6 ○ 6 times a week or more

12 About how long (in hours) do you usually spend at the centre per visit?

1 ○ Less than 30 minutes
2 ○ About 30 minutes to 1 hour
3 ○ Between 1- 2 hours
4 ○ Over 2 hours

13 At which time do you most often use this centre?

1 ○ Before 9am
2 ○ 9am to noon
3 ○ Noon to 3pm
4 ○ 3-6pm
5 ○ After 6pm

14 Which of the following best describes your current marital status?

1 ○ Single
2 ○ Married/De facto
3 ○ Separated/divorced

15 Do you have any children under 18 years of age?

1 ○ Yes (please go to Q16)
2 ○ No (please go to Q18)

16 How many of these children are living with you? (If zero please go to Q18)

_____ (record actual number of children at home)

17 What is the age of each of these children who are under 18 years of age and living with you?

_____ _____ (record the actual ages of children at home)

18 My occupation is:

1 ○ Manager/administrator
2 ○ Professional
3 ○ Associate professional
4 ○ Trades person
5 ○ Clerical, services, hospitality, sales
6 ○ Production or transport
7 ○ Labourer
8 ○ Home duties
9 ○ Retired
10 ○ Other_____
(please specify)

19 Do you have more than one job?

1 ○ Yes
2 ○ No

20 How many hours per week do you usually work (in all jobs)?

_____ _____ (hours per week)

21 Did you look for work at any time in the last four weeks?

1 ○ Yes
2 ○ No

22 Where were you born?

1 ○ Australia
2 ○ Overseas English speaking country
3 ○ Overseas non-English speaking country

23 Have you experienced a problem(s) with any aspect of this centre?

1 ○ Yes (please list the problem(s) in the space provided then answer Q24)
2 ○ No (please go to Q26)

_____
_____
_____
_____
_____

24 Did you report the problem(s) to staff of the centre?

1 ○ Yes
2 ○ No

25 Was the problem resolved to your satisfaction?

1 ○ Yes
2 ○ No

26 Finally, overall how satisfied are you with this centre? Please circle the appropriate number.

1	2	3	4	5	6	7
Very dissatisfied						**Very satisfied**

Thank you for the time and consideration you have given this questionnaire.

In accordance with University ethics requirements, your response will be managed in a confidential manner, with only the combined responses of all participants in this survey being reported.

Copyright laws apply.

APPENDIX 2:
Copy of the covering letter used for the CSSIL questionnaire.

Dear participant,

My name is James Smith and I am completing my PhD at the University of South Australia. I am investigating factors that may contribute to or inhibit decisions to continue with your exercise and fitness activities at this centre.

It would be very much appreciated if you could assist me by completing this questionnaire. Participation in the study is completely voluntary and anonymous and members can decline to take part without consequence. In addition, the responses of your answers are confidential, and you have the right to withdraw from the study.

If you wish to participate, please simply follow the instructions for each question contained in the questionnaire. It should take approximately 10-15 minutes to complete. The questionnaire is divided into five main sections.

Section 1 focuses upon demographic information (such as age, gender etc). Section 2 focuses upon factors that contribute and or inhibit participation. All the questions in the questionnaire relate to your experiences at your centre. Please note that there are **NO RIGHT OR WR ONG ANSWERS**. Please respond to the questions as honestly as possible to reflect your true positions or feelings. Please return your completed questionnaire by using the pre-paid self addressed envelope. All responses will remain confidential, the data will be stored in a safe, locked cabinet at the University of South Australia, in the Achieves room at the Mawson Lakes Campus. Electronic data will be recorded on computer disk and stored in the same location. Data will be stored for seven years as per University policy.

Every single reply will add to the value of this research. I would be most grateful to you if you could please take the time to complete this questionnaire and return to it in the reply-paid envelope. Should you have any further enquiries please contact either James Smith on 0431113053 or email James.Smith@postgrads.unisa.edu.au, or contact Dr Murray, Tel: 08 8302 3164. This project has been approved by the University of South Australia's Human Research Ethics Committee. If you have any ethical concerns about the project or questions about your rights as a participant please contact the Executive Officer of this Committee, Tel: 08 8302 3118; email Vicki.allen@unisa.edu.au.

We thank you in anticipation of your support.

James Smith BSc, MSc, PhD Scholar.