

**CLIENTS' SATISFACTION WITH FITNESS SERVICES  
PROVIDED AT FITNESS CENTRES IN NIGERIA**

**BY**

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M.SC/EDUC/03177/2006-2007**

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FACULTY OF EDUCATION,  
AHMADU BELLO UNIVERSITY,  
ZARIA, NIGERIA**

**AUGUST, 2011**

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**(M.SC. EXERCISE AND SPORTS SCIENCE)**

**A THESIS SUBMITTED TO THE POSTGRADUATE SCHOOL,  
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**DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION,  
FACULTY OF EDUCATION,  
AHMADU BELLO UNVIERSITY,  
ZARIA, NIGERIA**

**AUGUST, 2011  
DECLARATION**

I hereby declare that this thesis was written by me and that it is a record of my own research work. It has not been presented in any previous application for higher degree. All sources have been duly acknowledged by means of references.

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OMAJUWA ISAAC

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SIGNATURE

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DATE

**CERTIFICATION**

This thesis entitled “Clients’ Satisfaction with Fitness Services Provided at Fitness Centres in Nigeria” by Omajuwa Isaac has met the regulations governing the award of the Masters Degree (M.Sc) in Exercise and Sports Science, Ahmadu Bello University, Zaria and is approved for it’s contribution to knowledge and literary presentation.

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## **DEDICATION**

This work is dedicated to God, Almighty for giving me the strength to sail through and also to my beloved late father Mr. Thompson Omajuwa, my late mother, Mrs. Janet Thompson, late sister Mrs. Dajire Omajuwa and my late wife Mrs. Sarah Sule Nyanayok, may their gentle souls rest in perfect peace. Amen.

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## **ABSTRACT**

Fitness centres are being established in many urban centres in Nigeria at a very rapid rate. Different fitness centres offer different programmes without consideration of the appropriateness and adequacy, all due to a corresponding increase in awareness on the need to partake in fitness programme. The purpose of the study, therefore, was to find out clients` satisfaction with fitness services provided at fitness centres in Nigeria. To achieve the purpose of the study, questionnaire was used, copies of which were administered on the subjects basically clients of randomly selected fitness centres in the six geographical zones of Nigeria namely South-West, South-East, South-South, North-Central, North-West, North-East and the Federal Capital Abuja. Descriptive analysis consisting of frequency, percentage, was used to gain qualitative information, while Chi-Square was used to test the three hypotheses postulated in this study. The results of the study showed that a vast majority of clients were satisfied with the fitness services provided at the fitness centres in Nigeria.

It was recommended in the study that: That fitness centres should continue to upgrade their programmes so as to

continue to meet the needs of clients and that exercise instructors should continue to update their knowledge so as to ensure continued satisfaction of clients

## TABLE OF CONTENT

	<b>PAGE</b>
Cover Page .. .. .	i
Title Page .. .. .	ii
Declaration .. .. .	iii
Certification .. .. .	iv
Dedication .. .. .	v
Acknowledgements .. .. .	vi
Abstract .. .. .	viii
Table of Content .. .. .	x
List of Tables .. .. .	xv

### CHAPTER ONE: INTRODUCTION

1.0 Background of the study.. .. .	1
1.1 Statement of the Problem.. .. .	3
1.2 Research Questions .. .. .	3
1.3 Basic Assumption .. .. .	3
1.4 Major Hypothesis .. .. .	4
1.5 Sub Hypotheses.....	4
1.6. Significance of the Study.....	4

1.7	Delimitation of the study .. .. .	5
1.8	Limitations of the study .. .. .	6
1.9	Definition of Terms .. .. .	6

## **CHAPTER TWO: REVIEW OF RELATED LITERATURE**

2.0	Introduction .. .. .	7
2.1	History of Fitness Centres in Nigeria	7
2.2	Objectives of Fitness Centres in Nigeria ... ..	10
2.3	Typical Fitness Centres Instructors ..	13
2.4	Fitness Programmes Provided at Fitness Centres in Nigeria ..	13
2.5	Facilities at Fitness Centres in Nigeria	17
2.6	Equipment found at Fitness Centres in Nigeria	20
2.7	Clients` Satisfaction with Services Provided at Fitness Centres in Nigeria	21
2.8	Types of Fitness Centres	23
2.9	The Art and Science of Exercise Prescription	36
2.10	Progression of Exercise and Stages of Progression in the Exercise Programmes	38
2.11	Preliminary Screening of Participants	42

2.12	Staffing Consideration	44
2.13	Preventive Health Programmes	46
2.14	Benefits of Preventive Health Programmes	46
2.15	Cardiovascular , Medical and Physical Fitness Evaluation	47
2.16	Exercise Classes	51
2.17	Fitness Maintenance Programmes Jogging Club	52
2.18	Personnel	53
2.19	Programmes	55
2.20	Fitness Activities	56
2.21	Safety	60
2.22	Operational cost	61
2.23	Exercise Classes	61
2.24	Summary	62

### CHAPTER THREE      METHODOLOGY

3.0	Introduction.....	64
3.1	Research Design.....	64
3.2	Population for the Study.	64
3.3	Sample and Sampling Technique...	64
	xii	
3.4	Validation of the Instrument	67

3.5	Reliability of the Instrument...	67
3.6	Instrument for Data Collection....	67
3.7	Administration of Instrument..	68
3.8	Method of Data Analysis	68

#### CHAPTER FOUR .....RESULTS AND DISCUSSION

4.0	Introduction...	69
4.1	Results	70
4.2	Discussion..	79

#### CHAPTER FIVE

#### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1	Summary..	83
5.2	Conclusions.	84
5.3	Recommendations..	84
	References	86

Appendix A	92
Appendix B	93
Appendix C	94

## LIST OF TABLES

<b>TABLE</b>		<b>PAGE</b>
<b>Table 4.1</b>	Descriptive Analysis of Demographic Variables	70
<b>Table 4.2</b>	Frequency and percentage distribution of respondent according to personnel of fitness centres..	
..	..	72
<b>Table 4.3</b>	Frequency and percentage distribution of respondent according to programmes of fitness centres in Nigeria .. .. .	74
<b>Table 4.4</b>	Percentage distribution of respondent according to facilities of fitness centres	76.
<b>Table 4.5</b>	Association between clients` satisfaction and quality of personnel	77
<b>Table 4.6</b>	Association between clients` satisfaction and programmes ..	78
<b>Table 4.7</b>	Association between clients` satisfaction and facilities of fitness centres	79

# CHAPTER ONE

## INTRODUCTION

### 1.0 Background of the Study

The number of individuals participating in regular exercise has been on the increase globally (Niemann 1990). For example, in the United States of America over 12 million people take part in regular running, physical activity and exercise programs. (Niemann 1990). This increase participation and physical activity level may be due to the fact that many people are becoming aware and appreciative of the immense health benefits of exercise especially those involving regular aerobic and training. Training improves and strengthens the cardiovascular system, maintains body weight, improve posture, decrease risks for chronic disease, decrease blood pressure, promotes sleep and relaxation, slow down the aging process, improves self-image, and improves the general quality of life (Van 1988; Cooper, 1985; Artal, 1986; and Niemann 1990).

Regular moderate to vigorous exercise is certainly the most significant factor contributing to physical fitness, health and productivity of an individual. There is much evidence to show that moderate amount of regular exercise is needed for the maintenance of functional integrity of the cardiovascular system, muscles, bone and ligaments (Haruna, 1993). There is also evidence of a proven nature, suggesting that regularly performed aerobic exercise will protect against coronary artery disease, diabetes and obesity (Holloszy, 1983; Venkateswarlu, 1987; Chado, 1992; Haruna, 1994). Haruna and Gunen (1996) stressed that physical activity can develop fitness and

lack of fitness can limit healthy living. They emphasized further that physical activity can improve fitness and quality of life.

Nigeria in recent times is witnessing a new and healthy development concerning the physical fitness of her citizens. This new wave has made the average Nigerian in most urban cities to be aware of the first move to being healthy is to keep fit.

A number of studies have clearly shown that regular training and involvement in physical activity enhances health and reduces the risk of coronary artery diseases (CAD), hypertension and stroke as well as diabetes, obesity and other chronic disorders (Chado, 1992). Regular physical activity is prominence in the treatment of non-insulin dependent diabetes and for sometimes it removes the need for insulin substitutes (Ekoe, 1989), Kriskal et al. (1994), Haruna (1993) Sharkey, (1997), reported that men and women who engaged in vigorous exercise at least once a week had a reduced risk factors of diabetes.

Available marketing strategies suggested that the fitness service providers should analyze the needs and interest of their clients in order to develop the most appropriate programmes and delivery methods; these would help them in attracting more loyal participant's base as it is six times less expensive for retaining customers. (Ostrowski et al. 1999).

The objectives of physical fitness centres vary from one fitness centre to another but central to all is the development and maintenance of the physical fitness status of participants thereby reducing hypokinetic disorders, the major one being obesity or overweight. Some may venture into purposeful body building or correction of some postural disorders. The sum total of these objectives is the development and

maintenance of a desired physique with optimum physical fitness level. (Fox and Mathew, 1981; Hockey, 1973; McArdle, et al 1981). It is because of those benefits that all over Nigeria, fitness centres are being developed. This study was therefore conducted to assess clients` satisfaction with personnel, programmes and facilities of fitness centres in Nigeria.

### 1.1 **Statement of the Problem**

Fitness centres are being established in many urban areas in Nigeria at a very rapid rate. Different fitness centres seem to offer different programmes without consideration of the appropriateness and adequacy of such programmes. Service providers use print and electronic media to attract unsuspecting customers .Many of them appear to have entered into the venture purely for economic purposes and without relevant qualifications and training. There is, therefore, a need to evaluate clients` satisfaction with personnel, programmes and facilities of the fitness centres for the purpose of ascertaining the qualities and standard of services provided.

### 1.2 **Research Questions**

The research questions that this study was designed to answer were,

1. Are clients satisfied with quality of personnel at the fitness centres in Nigeria?
2. Are clients satisfied with programmes at fitness centres in Nigeria?
3. Are clients satisfied with facilities at fitness centres in Nigeria?

### 1.3 **Basic Assumptions**

Based on the stated research questions, the following basic assumptions were drawn:

1. There are stated goals and objectives for the fitness centres

2. There are qualified personnel.
3. There are quality products and service delivery methods.
4. The facilities and the equipment provided are adequate.

#### 1.4 **Major Hypotheses**

Clients would not differ significantly on their satisfaction with services provided at fitness centres in Nigeria.

#### 1.5. **Sub Hypotheses**

The following sub hypotheses were drawn for this study:

1. Clients would not differ significantly on their satisfaction with personnel at fitness centres in Nigeria.
2. Clients would not differ significantly on their satisfaction with programmes provided at fitness centres in Nigeria.
3. Clients would not differ significantly on their satisfaction with facilities provided at fitness centres in Nigeria.

#### 1.6 **Significance of the Study**

The increased desire of government to improve health conditions of it's citizens by engaging in physical activity has led to the need to search for better data on all aspect of fitness centres.. Precise and complete understanding of health knowledge is essential before determining the contents of physical fitness centres.

Thus, the research is significant in that it had provided empirical evidence of the level of awareness of the people of Nigeria about clients' satisfaction of personnel, programs and facilities of physical fitness centres. It also provided evidence for the

knowledge level as well as practice of preventive measures against health and physical activities.

It is believed that when this work has been completed, it would be expected to be significant to different benefactors. It is hoped that it will serve as an insight to researchers who might consult it in the process of carrying out similar study in the future. To physical educators, it is hoped that they would further realize the important role physical fitness centers are expected to play on the lives of Nigerians.

In the same vein it is hoped that physical fitness planners would benefit from the study in such a way that when engaged in further review of fitness programs, other interest groups would be contacted and made to play their roles. The researcher also expected Exercise and Sports science students to benefit from the study when they find it necessary to consult in the course of their studies and to establish bases for regular exercise programs

It is also hoped that physical fitness personnel would be able to detect some of the problems militating against the achievements of some aims and objectives of fitness programs.

Finally the study would provide additional literature that would enrich the existing ones in the area of evaluation of personnel, programs and facilities of fitness centres in Nigeria

### **1.7 Delimitation of the Study**

The study was delimited to clients of selected fitness centres in Nigeria namely Proflex World Class Fitness Centre, UNILAG Gym., Neocourt Hotel Gym., Nike Lake Gym., Jos Fitness Studio, Genesis Fitness Centre, City Gym., Gobabis Gym., Lakechad

Hotel Gym., Gymnasium Lerchenfield, Nicon Hilton Fitness Centre and The Dome Fitness Centre. The study was also delimited to personnel, programmes and facilities at the fitness centres in Nigeria

#### 1.8 **Limitation of the Study**

1. Through confidentiality was assured and questionnaire was structured in clear and simple language, it was difficult to ensure that all respondents accurately conveyed their feelings while filling the questionnaire and this might affect the interpretations of the results to some extent.

#### 1.9 **Definition of Terms**

1. **Fitness Centre:** An organized hall where qualified exercise scientist prescribes activities that develops fitness for individual.
2. **Clients:** Registered participants in fitness activities who engage professional services.
3. **Staff:** People employed by the management of the fitness centres to work in the centres.
4. **Facility:** A structured designed to accommodate fitness equipment that are used for fitness programmes.
5. **Equipment:** Movable materials or tools needed for the purpose of fitness activities in fitness centres.
6. **Clients` satisfaction:** Acceptability of adequacy of fitness centres by clients.
7. **Fitness services:** These are personnel, programmes and facilities available at fitness centres in Nigeria.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.0 Introduction**

Physical fitness centers is an establishment consisting of a wide variety of evaluating, exercising equipment and monitoring instruments with the sole aim of developing and maintaining the physical fitness status of its users under the management of a qualified exercise physiologist. According to Bucher (1983) management is guiding human and physical resources into a dynamic organizational unit that attain its objective to the satisfaction of those served and with a high degree of morale and sense of attainment. Park house and Vans (1988) see management as working towards the achievement of objectives with and through people.. Three elements of management have therefore been identified and they are organizational objectives, satisfaction or fulfillment of the expectation of those served and finally, the facilities in terms of human and material resources needed for the attainment of the purpose for which the organization was established. Van et al (1988).

#### **2.1 History of Fitness Centres in Nigeria**

Fitness centre have been defined by Werner (1988) as an establishment that help people achieve a higher level of health through ed programming and provision of support services like counseling, and regular exercise classes. Fitness centre have existed for Lly years in America, but it started explosive growth in the 1980's from they flourished to become a lucrative market for investors (Robert,r al.1986). According to Business Week Magazine, (1981) the United over 2000 community/YMCA programs that provide I, family and corporate memberships. The

current trend in nations is for companies, agencies or business outfits with employees have to offer health/fitness programs to prevent serious socio-medical problems. Belloc (1972) stated that fitness programs are offered in corporate, community and commercial settings. In Nigeria, fitness centres are mostly owned by private individuals businessmen. The Nigerian government do not have a fitness program of her citizenry as do developed communist and socialist nations and so has not considered the establishment of fitness centres a priority (Adedeji, 1989). The idea of fitness centres was first brought to Nigeria by the colonial whites. Such facilities were available to the white masters only [in their preserved quarters (residential areas)]. Today a survey of these facilities will indicate that they have improved both in quality and number (Adedeji, 1989). Today most of these fitness centres are owned by private businessmen, their primary objectives are profit making, customer satisfaction and manageable growth. These in turn dictate establishment of safe, effective exercise environment and classes (Adedeji, 1996). According to Adedeji (1989), in the past, these fitness centres did not take precautions when prescribing exercise for clients. They were concerned with promoting their facilities by selling memberships. This trend has changed and they have come to recognize the need for both promoting their programs through good relations and providing good programs and staff to back the promotion.

The main objectives of fitness centres in Nigeria is to satisfy customers and raise their health status by providing safe, supervised exercise environment (Robert, et. al. (1986).

In trying to enhance fitness, human movement and having people to imbibe active lifestyle, fitness centre in Nigeria offer the following program:

- > Stress management
- Low back pain management
- > Alcohol abuse prevention
- > Weight management
- > Recreational programs
- > Fitness programs
- > Nutrition counseling
- > Smoking cessation program and
- > Rehabilitation programs.

According to Goldberg, (1978), these programs are delivered through the following components: individualized needs assessment, customized programming, physiologic testing, exercise prescription, activities, health counseling and health education. A survey of distribution of fitness centres facilities and equipment reveals every disparity between developed and developing countries to which Nigeria belongs (Adedeji, 1989). The evident progress I prosperity of many sporting nations have been attributed to the use modern facilities and equipment courtesy of technology. Modern fitness centres in their quest to satisfy man's fitness needs have ventured . technology to seek ways of enhancing human movement and fitness. Computers are now used to prescribe exercise and analyze body composition (Montelione, 1988).

Experts have consistently observed that there is a clear disparity between Nigeria and the developed nations in terms of distribution of fitness centres, facilities equipment

and staff. As for the proliferation of fitness centres, while America and Japan had 59,000 in 1974, Nigeria today has far less. These countries pride themselves with the provision of modern equipment and facilities and equipment of the appropriate standard to promote the attainment of exercise/program goals. This self is modern technology. The advanced countries respect the provision of modern technology for the development, acquisition and maintenance of fitness equipment. Hence, in this nations, they keep e with changes in this area. For this reason, they possess the capacity to design, construct, install and maintain fitness facilities and in all ramifications (Ojeme, 1998). Nigeria as of now cannot these claims, it is obvious that the situations in our fitness centres needs overhaul. It is squarely proper for Nigeria to articulate the characterizing features of our fitness centres. It is imperative that Nigeria pays attention to the acquisition of such modern technology. Thus, the issue improving our fitness facilities and equipment in Nigeria to world standard must be our goal in this millennium (Ojeme, 1998). In summation, fitness centres in Nigeria compared to developed countries is deficient in the provision of modern facilities and equipment, personnel, funding program implementation and certification. To worsen situations, there is no national guidelines for the establishment of fitness centres.

## **2.2 Objectives of Fitness Centres in Nigeria**

A fitness centre is a building or series of building equipped with Facilities and fitness equipment where people go to perform exercises. According to . Sacket et. al. (1976) since fitness interventions are meant to Change participants lifestyle, fitness professionals must be concerned

certain ethical issues. They further gave the following as philosophy of fitness centre.

1. Participants of a fitness program must be seen as worthy and capable with great human potentials that can be expanded through cooperation or partnership.
2. Fitness are available to potential participants on a voluntary rather than forced basis.
3. The health/fitness program involves the participant about decision making about their promotion plans.
4. The techniques used in the fitness program are scientifically correct, safe and appropriate for the individual as determined by needs assessment.
5. Compliance or adherence techniques are fully explained to the participant who agrees to engage voluntarily in the activities.
6. Fitness professionals are properly trained.
7. The use of fitness records is explained to the participant. According to Allegrante (1984) these ethical issues and philosophy are to make fitness professionals wary of violating the trust of participants in a program because of conflicting loyalty to their employees and to avoid shifting of blame of ill health entirely to the participants as a by-product of health promotion efforts that emphasizes self responsibility.

The purpose of fitness centre is to provide support services and educational experiences that will engage program participants not only to improve their personal lifestyle but also to fight environmental threats (Robert, et. al.

1972). Support services implies intangible and tangible services that include counseling, needs, assessment and exercise prescription.

According to Victor, (1979) the purpose of fitness centre is to seek ways of enhancing fitness, human movements and imbibe active lifestyle in people.

This is done through the provision of planned exercise through which people become more fit and confident in their movement. Fitness centres are concerned with providing opportunities and extra support services beyond simple education that are aimed at influencing decisions of participants as it pertains their lifestyle or health (Allegrante, 1984).

Fitness centres also seek to decrease illness, increase productivity and reduce medical cost by improving the overall health status of the program participants.

Roberts et. al. (1986) stated that fitness centres exists for Profit-making through customer satisfaction and manageable growth. Here customer satisfaction determines the profit and rate of growth which in turn determines the effectiveness of the program and safety. Barder et. al (1982) noted thus about fitness centre, they provide a safe, supervised exercise movement to reduce legal risks and meet health standard of regulatory agency. Fitness centres also ensure customer's satisfaction by providing effective and entertaining health/fitness experiences.

In summary, the purpose of fitness centre is to increase longevity, se illness, increase productivity and lower medical costs by raising general level of participants' health through fitness and health enhancing

experiences.

### **2.3 Typical Fitness Centre Instructors**

The key personnel involved with the operation of typical fitness programmes include the following:

- Programme Director
- A Medical Director
- An Exercise Physiologist
- An Executive Board
- A Cardiologist
- An Ortopaedic Physician/Physical Therapist
- A Lawyer
- A Community-minded Politician

### **2.4 Fitness Programmes provided at Fitness Centres in Nigeria**

According to David, (1998) fitness centre is a place that provides people with wider opportunities of participating in physical activities. They help participants to higher level of health by ways of individualized needs assessment, customized programming and other support services hke counseling and exercise classes. Fitness program of is a combination of health education, health counseling, health assessment and fitness promoting experiences that are designed to enhance behavioural changes conducive to health (Corry 1983). According to Robber et al, (1986), these programmes are a new popularized but traditional ways of increasing well being of participants through planned health education and fitness

experiences. Goldberg, (1978) noted that programme component of an ideal fitness centre will include physiologic testing exercise prescription, supervised workout, aerobic activities, health counseling and health education.

1. Robber et al, (1986) stated that health/fitness programs are offered at community, corporate and commercial settings. They further stated that programs of fitness centres differ significantly depending on the agency or organization. In the same way, manner of program delivery also differ. Commercial fitness centres exist to make profit therefore customers satisfaction and manageable growth determine the establishment of safe, effective programs (Corry 1983). According to Business week, (1981) commercial fitness centres deliver their programs, through health promotion, rehabilitation, elaborate exercise, nutrition and exercise counseling. The prime objective of fitness centres is high participation at reasonable cost, participation is directly related to amount of personal attention offered and convenience for the participants of the program. The types of programmes offered by fitness centres include preventive, rehabilitative, curative and recreational programs. The following are some programs offered in ideal fitness centre:

**Low-back Management:** Low-back pain is a serious problem that affects the middle age and the old. Its intensity, disability it causes and the discomfort associated with low back pain can be as serious as to disrupt daily routine (Anderson, 1981). Lowback pain management program uses

education program that provides training in correct lifting and handling techniques or preventive therapeutic exercise classes. This program component includes identifying the types of LBP, determining the causes, planning preventing techniques and other services needed and clinical treatment (Robber et al, 1986).

**Stress Management Program:** Stress, according to Nieman, (1997) is any action or situation (stressor) that places special physical, or psychological demands on a person. It is anything that unbalances a person's equilibrium.

According to Pelletier, (1977), stress management program provide an opportunity for the individual to develop healthy habits that will translate into greater personal vitality and less irritability. Nieman, (1997) stated that stress management revolves around five major principles: controlling stressors (situations), managing stress reactions, seeking social support from others, finding satisfaction in services of others and keeping healthy.

**Weight Control Program:** Overweight according to Mc Ardle, (1981) is body weight in excess of a standard established for one's height and sex.

Most overweight persons want to reduce their weight or cosmetic reasons and enhancement of physical appearance. The weight control program seeks to help individuals to reach and maintain an appropriate/desire body weight. The program involves determining the type, nutritional counseling, exercise and medical screening.

**iv. Substance Abuse Prevention Program:** Substance abuse is a significant health and social problem. Drug abusers have

shown great absenteeism rate, great incidence of accidents and lower productivity than non abusers. Substance abuse prevention program can be instituted in a fitness program with hardly any extra cost.

v. Smoking cessation Program: Smoking has devastating effects on the individual, family and community. Smoking cessation program seeks to improve the health of the individual through behaviour modification geared towards quitting smoking.

vi. Exercise: Fitness development is the most popular service offered in health/fitness programs. Exercise and fitness program have significant effects on wellness.

Because fitness centre differs in facilities, personnel, types of ...its, equipment, objectives and management styles, the types, size and quality of programs will be determined by the above mentioned exercise. Comprehensive programs will be impractical because of inadequate provision or lack of them. Also, the types and size of program will be influenced by the number of clients and whether they are males and females, old or young.

Investors in this sector do not regard the provision of standard facilities and adequate relevant equipment as a basis for establishing centres.

According to Chado, (1992), it has been observed by many that many fitness centres only have few exercise machines and instructional books, often used without consideration for standard and scientific basis of prescribing exercise.

## **2.5 Facilities at Fitness Centres in Nigeria**

According to Bucher, (1979), two things are to be considered when facilities are planned. The first is that facilities emanate as a result of needs. The second is that cooperative planning is essential, to avoid common mistakes that could occur. This connotes that before planning for facilities a need assessment must be conducted to determine the nature and quantity of facilities to be constructed. The extent to which health/fitness programs can be adequately exploited by participants and spectators depend on the quantity and quality of the facilities, equipment available (Awesika, 1996). Ojeme, (1998), saw facilities and equipment as material infrastructure and implements of sports required for sports experience.

A fitness director should carefully plan the strategy of delivering fitness program by utilizing the advantages and eliminating the disadvantages. In planning an in-house fitness program and use an existing facility, or construct a special area for exercise, the fitness director must meet with the architect to plan efficient use of the space (Robber, et. al. 1986). According to Epperson (1996), the provision of an in-house facilities demonstrates to participants the organization is serious about and has a long-term commitment to the program. This according to him increase participation and makes staff more effective when implementing the program in facilities designed specifically for that purpose. An ideal fitness centre will have the following facilities:

> The first requirement for an in-house facility is to provide separate

shower and dressing rooms for men and women. These facilities allow participant to dress for and clean up after exercise performed at the centre as at nearby community resources as parks, jog tracks, tennis courts or swimming pools. (Robber 1986).

- The provision of a large room such as a cafeteria for group or individual exercise, such as callisthenic classes, aerobic dance programs. A special room could be constructed and equipped for the exercise program.

Epperson, (1996) noted that another facility needed by a fitness centre to implement fitness programs is an outdoor or indoor jogging track. This will allow for proper conduct of fitness program, save participants time by traveling the least amount of distance to get the facility, change clothes and shower. The locker room is another facility that is to be provided by a fitness centre. Locker room is a place where program participants can keep their personal effects like towel, hair dryer and soap. This facility allows the participant to change into fresh clothes after exercise and shower.

Parking space is also another needed to be provided in a fitness centre. The parking lot should be large enough and such that it facilitates easy traffic to and from the facility. Also, needed as facility is a mechanical plumbing system for the shower, sink, lavatories and ting facilities. There may be need for special electrical systems for the gymnasium, testing room, exercise equipment, steam and sauna rooms (Robber, 1986).

A good air-conditioning system is another facility needed by an ideal fitness centre. This is to controlling heat and humidity in locker rooms and exercise rooms;

especially when there is heavy breathing and the room small or confined as high temperatures and humidity are uncomfortable and unsafe for exercise. Laboratories are testing rooms that are equipped with different technical equipment or machines. This facility must be manned by staff that are technically trained in managing testing procedures. Body composition, initial fitness level, Vo2Max 1 medical screening are determined from this laboratory.

O'Donnel and Aisworth (1984) gave a list of facilities for a fitness in the table below.

1. Administrative office
2. Community resources
3. Shower and dressing rooms
4. Exercise room! gymnasium
5. Outside track
6. Indoor track
7. Courts/pitches
8. Swimming pool
9. Ventilation and air conditioning units
10. Testing rooms/laboratories
11. Physiological and psychological screening laundry storage.

Important facilities are planned for the future and to avoid what often happens when constructed; become too small or inadequate very soon due to increase in program participants because they are important for success in program implementation or delivering they must be appropriate. The

maintenance of fitness facilities is a serious business that requires professionally trained personnel.

## **2.6 Equipment found at Fitness Centres in Nigeria**

Since the concern of fitness centres is to seek ways of enhancing fitness, human movements and imbibe an active lifestyle in people, the provision of adequate standard fitness equipment is very important. According to Ojeme, (1998), equipment are the material implements of fitness which are required for fitness experiences. He further stated that equipment can result in improved techniques of program delivery and safety of participants.

The extent to which fitness programs can be exploited by participant will depend on the quality and quantity of equipment available. A limitation to these will create difficulties in the attainment of fitness goals (Epperson, 1996). Planning for equipment must be a product of needs assessment, which is carried out to determine the type of equipment for the programs. According to Awosika (1996), facilities and equipments are programme related and so must be provided appropriately. Their availability adequacy and good maintenance hence the possibility of good program implementation.

Equipment cost depend on the fitness program objectives and ties selected. Good maintenance and custodial personnel can ensure a clean, safe environment for the program. Maintenance schedules should be designed to keep all equipment operating correctly (Robber et al 1986'). Technical information about fitness equipment can be procured in form of international standards and guides from sources as professional literatures and manuals. The program director has the responsibility to act as a source of

information to management on fitness equipment and present the fitness program budget. He also uses the budget to analyze and improve the operation of the fitness s (McNiece, 1972). According to O'Donnel and Ainsworth (1984) following are some standard fitness equipment to be found in a centre.

## **2.7 Clients` Satisfaction with Services Provided at Fitnesss Centres in Nigeria**

Research in services marketing literature have indicated that customer satisfaction is closely related with positive behaviour intentions and customer loyalty. Therefore, meeting the demands for customer satisfaction is an important task for managers of fitness centres in this competitive age (Backman and VeldKamp, 1985). It is also a variable that mediates the relationship between perceived service quality and behavioural intentions. Dishman (2001) reported in his study that half of participants who started fitness programs drop out within a short period. He also reported that an average of 40% of customers in the fitness industry is lost each year in America.

According to Sawyer and Smith, (1999), demographic variable (male and female) cannot be underestimated in the perception of customer satisfaction. They reported in their study, "significant differences between male and females". Women showed less satisfaction in facilities/ services dimension. This dimensions include cleanliness of gymnasium and changing rooms. It is therefore incumbent on program managers to ensure that exercise room, dressing room and other facilities are kept clean always to enhance its aesthetic value.

Theodorakis and Sarmento (2004) reported in their studies that educational background play a vital role in customer perception and loyalty to fitness programs. They reported that individuals with higher educational status are a more demanding

group because they have higher expectations from the services that they perceived. This according to them is so because they have more experiences from sport services and an increased knowledge about fitness related issues. It is important managers should work more on the development of a wider range of programs that will meet the higher expectations of the educated individuals. In the same studies, Theodorakis and Samento (2004) reported that female participants usually prefer to participate in group fitness activities and scheduled exercise programs. A wider variety of fitness and aerobic programs should be developed to accommodate the needs of female participants.

In his work “Development of a Multi-dimensional scale for measuring the perceived value of a service” Petrick, (2002) reported that “perceived value’ is one of the most important ways for gaining competitive advantage and plays very important role in repurchase intentions. These according to Parasuraman and Grewall (2000) have far reaching implications for the recreation and tourism industries.

According to Sweeney et. al. (1998) what a customer receive relates to emotional response or joy received from the purchase and quality. Dodds et. al. (1991) stated that the product/services reputation has great influence on consumers` perceived quality and perceived value. His findings are related to a customer who feels very satisfied about a product or services, may consider it a poor value if the cost for obtaining it is perceived to be too high. On the other hand, a moderately satisfied consumer may find a service to have good value, if he believes that he receives good utility for the price paid. Thus, it could be stated that dimensions of what a customer receive from the purchase of a service includes emotional response, quality received from the service and the reputation of the services rendered.

## **2.8 Types of Fitness Centres:**

### **2.8.1 Corporate Fitness Centres**

The concept of corporate fitness had its origins at the institute for working physiology in Stockholm, Sweden in the nineteenth century. The motivating force was not the health of workers, but how much work could be extracted from them. Forty-five percent of maximal oxygen consumption was determined to be the maximal effort an individual could sustain five or eight hours, return home functional, and be able to rise the next day for a similar work effort. Precise maximal workloads for various jobs could thus be prescribed (Cantu and Robert 1980).

Industry in the United State is reintroducing work physiology to the employee in the form of cardiovascular exercise programs. The ever-growing list of private firms committed to employee fitness includes Acro, Boeing, Bonnie Bell, Bose, Chase Manhattan, Exxon, Firestone, Ford Motor Company, General Foods, Goodyear, Kimberly-Clark, Merrill Lynch, Metropolitan Life, Norton Company, Pepsico, Philips Petroleum, Polaroid, Rockwell International, Sentry Insurance, Sly, Spaulding, Western Electric, and Xerox. The incentive to industry is reduced illness and absenteeism, less employee turnover, and greater productivity. (Freeland et al 1980).

The Federal Government is attempting to curtail ever upwardly spiraling health-care expenditure by promoting fitness and preventive medicine and heeding the words of the late John Knowles: “the next big advance in modern medicine will be in what the patient can do for himself”. The public Health Service’s “Forward Plan” for 1977 to 1981 states, “Habitual inactivity is thought to contribute to hypertension, chronic fatigue, and resulting physical inefficiency, premature aging, poor musculature, and

lack of flexibility which are the major causes of lower back pain and injury, mental tension, coronary heart disease, and obesity”. (Mc Nerney 1977).

Hospitals have become increasingly involve in the fitness movement. As Walter J. Mc Nerney states, “A new direction is needed for our medical system... that should concentrate on positive health rather than simply curative treatment... more doctors and hospitals don’t necessarily add up to better health. We are discovering that better health depends less on medicine than on life style, environment, and cultural factors”. The good life can kill you was the finding of a recent report from Massachusetts General Hospital which showed that three out of five hospitalizations could be avoided if people took better care of themselves. The message is quite clear that an ounce of prevention is still worth a pound of cure, and far less expensive (Mc Nerne 1977).

The exercising adult is no longer a strange animal. Only a very few years ago, however, if one was seen running in the streets, that person was likely to receive many catcalls and less than pleasant gestures from irritated passersby or motorists. Why were these people running, bicycling, and walking? The answer can be found in physical education, but most of these programs focused their attention on the healthy elite. The majority of people are represented by the physical disadvantaged. The physically disadvantaged are those people who need special care and consideration while exercising. Including in this group are those with cardiovascular, respiratory, diabetic, overweight, orthopedic, visual, auditory, motor, sensory, or mental deficiencies, plus the aged (Mc Nerney 1977).

**EMPLOYEE SERVICES AT SENTRY CENTERS**

<b>Employee Service</b>	<b>Sentry World Headquarters</b>	<b>Sentry West</b>	<b>Center Sentry Center East</b>
Assertiveness training	*	*	*
Career counseling	*	*	*
Employee assistance	*	*	*
Environmental change (vacation)	*	*	*
Exercise program	*	*	*
Financial planning	*	*	*
Fit Lines	*	*	*
(Health newsletter) Flex-time	*	*	*
Free expression of Emotion	*	*	*
Issue awareness Medical evaluation	*	*	*
Nutrition	*	*	*
Protected parking area	*	*	*
Quarterly information	*	*	*
Meetings Quiet room	*	*	*
Rest	*	*	*
Spiritual activities and Nourishment	*	*	*

## EXERCISE FACILITIES AT SENTRY CENTERS

Employee Service	Sentry World Headquarters	Sentry West	Center Sentry Center East
Gymnasium Badminton courts	*		*
Basketball courts	*	*	*
Tennis court Volley ball court	*	*	*
Jogging Fitness laboratory	*	*	*
Treadmills			
Bicycle ergometers	*	*	*
Rowing machines	*	*	*
Jump ropes	*	*	*
Stretch area	*	*	*
Low beam	*	*	*
Nautilus equipment (full array)	*	*	
Swimming pool	*	*	
Racquetball courts	*	*	
Tennis courts (outdoor)		*	
Softball field		*	
Outdoor jogging routes	*	*	*

## STAFFING AT SENTRY CENTERS

Center	Staff
Sentry World Headquarters	6 full-time
	2 student interns
Sentry Center West	9 part-time
	3 full-time
	2 part-time
Sentry Center East	1 full-time

## PROGRAMMING AT SENTRY CENTERS

Employee Service	Sentry World Headquarters	Sentry West	Center Sentry Center East
Aerobic swimming	*	*	*
Cardiovascular conditioning	*	*	*
Diet and exercise Dance aerobics	*	*	*
General body conditioning	*	*	*
Low back program	*	*	*
Blood pressure screening	*	*	*
Cardiovascular resuscitation	*	*	*
First aid program	*	*	*
Flu shot program	*		*
Oral hygiene examination	*		*
Smoking cessation	*	*	*
Stress management		*	
Badminton	*	*	*
Basketball	*	*	
Karate	*	*	
Parent-to swim	*	*	
Racquetball		*	
Scuba diving routes	*		
Social dance	*		
Tennis		*	
Yoga	*		

Emerson Hospital employees are allowed to use the sentry facility during the work week if they have participated in the cardiovascular conditioning program. Recently, Sentry and the hospital started another joint program. With two nutritionists

from Emerson hospital and an exercise specialist from sentry, the program combines nutritional information, behavior modification, and learning to exercise properly. This cooperative effort has been extremely successful since its inception during the summer of 1980.

The subject of compliance and adherence to exercise is a question of great concern. The literature suggests dropout rates vary widely from 30% to 70% Michael Sachs addresses this issue in greater detail. Statistics are currently being gathered at sentry. In all facilities, compliance has improved with each year.

In conclusion, the mortality rate of cardiovascular disease and stroke is now on the decline. There has been a decrease in per capital consumption of tobacco and saturated fats as well as better overall control of hypertension. While exercise alone is not a panacea, taken together with the other dietary and behavior modification programs offered at Sentry exercise is a significant factor in enhancing employees' health.

### **2.8.2 Commercial Fitness Centres**

The concept of cardiovascular fitness is not new in the fitness industry. In fact, a number of these private centers exist in New York City to serve the corporate community. The development of a privately owned commercial cardiovascular fitness center in downtown Hartford, Connecticut (Cardio-fitness Center) was intended to draw upon the numerous corporate business located in the insurance capital of the world. Over 20,000 executive-type personnel work in the areas surrounding the downtown section. Major corporations in the area include United Technologies, Pratt-Whitney

Aircraft, Otis Elevator, Heublin, Travelers, Aetna life and casualty organization, the Hartford Insurance Group, Merrill-lynch. Phoenix Mutual and the seat of State Government to name a few. The cardiovascular fitness center hoped to draw approximately 5% to 10% of these executive-type personnel or about 1,500 (American College of Sport Medicine Policy Statement regarding the use of human subjects and informed consent).

The marketing presentation before corporate management stressed those benefit which the center could offer to executive-type employees. By providing a fitness facility with a scientifically based program, professional staff, and highly trained exercise specialists using the most up-to-date equipment and conditioning principles. The center would offer participants the means of an improved cardiovascular-respiratory system improved muscular strength and endurance, and proper weight control. Significant improvement in a number of modifiable coronary risk factors would be possible, if participants followed the exercise program (American College of Sport Medicine Policy Statement regarding the use of human subject and informed consent 1980).

Several practical considerations also received careful planning convenience for - members was a prime concern. The entrance of the building therefore, is located within a ten-minute walk from most major corporations. The complex also includes an attached parking garage, one of Hartford's leading restaurants, and a major branch bank.

The facility is aesthetically well designed with wall-to-wall carpeting and full-length windows from floor to ceiling on two sides. It has a striking view from the third

floor looking out into the Hartford community with the beautiful state capital in the background. The facility possesses all universal variable-resistance weight equipment, treadmills, and bicycle ergo meters for cardiovascular work (Sidney, and Shepard, 1978).

A prospective member discusses the program with the professional staff who explain the benefits services and medical clearance. All members must have their personal physicians prescribe an exercise stress test and blood analysis. The results of these tests are returned to the physician who fills out an appropriate medical review form that provides the center with all scrimption. When this step is completed, the member is called in for orientation sessions, Truett, Cornfield, and Kannel, multivariate analysis of the risk of Coronary heart disease in Framingham (1967).

During the first orientation session, the new member is taken into the physical assessment room, and the assistant director administers a number of tests. Four skin fold sites for body composition are taken. There is a demonstration of how blood pressure will be taken while the participant is riding on the bicycle ergo meter; a site-and-reach test for flexibility is administered. A staff member then fills out the cardiac risk factor profile form, and the member spends the remaining time with a registered dietitian who goes over the blood analysis information and gives information concerning diet and nutrition. (Jackson and Pollock, 1977) prediction accuracy of body density, lean body weight and total body volume equations.

During the first orientation session, the new member is taken into the physical assessment room, and the assistant director administers a number of tests. Four skin fold sites for body composition are taken. There is a riding on the bicycles ergo meters;

a sit and reach test for flexibility is administered. A staff member then fills out the cardiac risk factor profile form and the member are weighed in the underwater weighting tank to determine body composition. It takes about 30 minutes to administer this test. Members have several options for the remaining time. They may use the equipment on the conditioning floor, take sauna, or talk to the nutritionist if there wasn't time in the previous session (American College of Sport Medicine Policy Statement regarding the use of human subjects and informed consent).

For subsequent sessions, a ten-station circuit system is utilized for the conditioning sessions. The American College of Sport Medicine guidelines are followed for the frequency, duration, and intensity of workouts. The conditioning session is broken down into three parts; a warm-up phase, a workout phase, and a warm-down phase. The member's heart rate is elevated slowly during the first stations, maintained at the proper intensity during the workout stations, and gradually returned downward during the warm-down station. The ten-station circuit includes:

1. Warm-up (stretching, flexibility)
2. Rowing or arm flexion (muscular endurance)
3. Leg flexion or leg extension (muscular endurance)
4. Bench stepping or rope jumping (cardiovascular endurance)
5. Treadmills (cardiovascular endurance)
6. Bicycles (cardiovascular endurance)
7. Chest press or shoulder press (arm muscular endurance)
8. Hip flexion or sit-ups
9. Warm-down (walking with free weight)

10. Warm-down (stretching flexibility).

Theoretically approximately 60 members can be handled at one time, since there are six pieces of equipment at each station. Each member must start at station one. The cardiovascular stations (station 4, 5, 6) are in the middle of the circuit because it is important for participants to go from one cardiovascular station to another in order to maintain their heart rates at the individually prescribed intensities. A perceived chart is maintained: members are asked to rate their exertion at each of the cardiovascular station.

The fitness facility is temperature and humidity controlled, and respective locker rooms have a man's and a woman's sauna. The lockers include small cubicles for securing the member's valuables; with ample space to hang the member's business suits on hangers between the lockers. At the end of each workout, the members must sign out just as they had to sign in.

### **2.8.3 University Based Fitness Centres**

Exercise alone is not a rational approach towards lowering the morbidity and mortality of heart disease nutrition and diet counseling, and educational sessions dealing with topics such as cathartic and recreational aspects of exercise should be ancillary components of an exercise program. The rationale for this approach is based upon population studies such as Minnesota studies and the Multiple Risk Factor Intervention Trial Study. These studies appear to support the contention that life style and heart cardiac disorders. (Lea and Febiger, 1980).

The available for physical resources and academic expertise along with the potential for interdisciplinary approaches towards life-style enhancement afford the

university environment a near ideal setting for an exercise program which emphasizes preventive health care can provide the necessary medical attention on campuses which do not have medical schools.

The biggest advantage of the university setting is the availability of outstanding exercise facilities, which can be used, in most situations, at little or no cost. Facility overhead cost probably constitutes the greatest proportion of a participant's cost for entering a fitness program which is administered in a privately owned facility. Blackburn, H. preventive cardiology in practice; Minnesota studies on risk factor reduction in M.L. Pollock, D.H. Schmidt, and D.T. Mason (Eds) Heart Disease and Rehabilitation, Boston; Houghton Mifflin Publishers, (1979).

Personnel cost at the university, in most cases, are minimal concomitant with this are the educational benefits, which are passed on to the students who either volunteer or receive academic reedit for staffing the program. Independent studies, honors theses, master's theses, and physiology courses have been structured around the adult fitness and cardiac rehabilitation programs at Southern Connecticut State College. Wilmore, J.H. Applied physiologic concerns and benefits in cardiac rehabilitation. In Pollock, Schmidt, and Mason (1979).

Low overhead cost for facilities and staffing offer the university an opportunity to charge minimal fees for enrollment. Furthermore, the physical education curriculum. Furthermore, the physical education curriculum along with the large number of students available to the fitness program director not only afford the director an opportunity to enrich the student academically but also provide great resources for personnel selection (Wilson, et al 1978).

Universities and corporations are finding that through concurring efforts adult fitness programs can be tailored to the specific needs and schedules of selected corporate personnel. In turn, corporations can provide monies to support primary and ancillary programs and purchase laboratory equipment, which can further enhance the sophistication of the fitness program. (Sidney and Shepard, 1978).

Prominent among the disadvantages of the college setting are the usual red tape problems associated with private, and especially nonprofit, institutions. Campus committees, campus administrators, the attorney general, the board, and possibly many other campus organizations must interact before unified action can be taken. These concerns coupled with the necessary medical community involvement provide administrative and political challenges to the program director, to say the least, (American College of Sport Medicine Policy Statement regarding the use of human subjects and informed consent.

Another rather common problem associated with the university based fitness program involves scheduling and sharing gymnasium and field house facilities. Physical education classes, athletic teams and intramural programs which have been in existence as long as the universities themselves must often be imposed upon to cooperate with health-related fitness classes. Thus any exercise physiologist who sets out to establish a university-based fitness program should possess not only the necessary academic expertise but also a knowledge of the basic administrative and political fitness which is necessary to deal successfully with the campus and community challenges. (American College of Sport Medicine Policy Statement regarding the use of human subjects and informed consent.

Some university-based fitness programs are cosponsored with other non-profit organizations. Southern Connecticut State College's Cardiac Rehabilitation Program, for example is cosponsored with the South Central Chapter of the Connecticut Heart Association. This highly successful program provides a source of income for the Heart Association as well as monies for qualified graduate students at the college who run the exercise sessions, lecture to the patients, and attend the Heart Association committee meetings.

#### **2.8.4 Typical University-based Adult Fitness Program Personnel**

The key personnel involved with the operation of a university-based fitness program should be a program director, a medical director, an exercise physiologist, and an executive board. The executive board can consist of a key campus administrator (dean's academic vice-president) a key faculty member (chairperson of physical education department). A cardiologist, an orthopedic physician or a physical therapist with expertise in sport medicine, a key corporate executive, a lawyer, and a community-minded politician.

Graduate and upper-class undergraduate student along with selected environmental factors can play a leading role in laying the foundation for faculty members can play important roles as exercise leader and lecturers coaches, physical therapists, and sport medicine physicians can provide the participants with very practical and stimulating mini-clinics (for example, basic, orthopedic concerns of running).

## **2.9 The Art and Science of Exercise Prescription**

Traditionally, some exercise specialists have focused more on scientific principles of exercise prescription, with little or no attention to the care of exercise prescription (ACSM 1995). As an exercise programming artist, you need to be creative, flexible, and able to modify the exercise prescription based on your client's goals, behaviours, and responses to the exercise. Using both a scientific and artistic approach will enable you to personalize the exercise prescription, increasing the probability of your client's making long-term exercise as an indispensable part of their lifestyle. Although prescriptions are individualized for each client, there are basic elements common to all exercise prescriptions. These basic elements include mode, intensity, duration, frequency, and progression (Pate et al 1995).

### **2.9.1 Mode:**

The specificity of training principle implies that certain types of exercise training are better suited than others to developing specific component of physical fitness.

To promote changes in body composition, bone health, neuron-muscular tension, and stress levels, many experts recommend using more than one type of exercise training (ACSM 1995). For body composition changes, you should prescribe a combination of aerobic exercise to reduce body fat and resistance exercise to build muscle and bone. Similarly, weight-bearing, aerobic activities and resistance training are both effective for building bone mass for improved bone health. Although many

different kinds of physical activity can be used to reduce neuromuscular tension and stress level, some experts favor using exercise modes that require focusing on specific muscle groups during the activity to induce a state of relaxation (e.g., progressive relaxation techniques and Tai Chi).

### **2.9.2 Intensity**

Exercise intensity dictates that specific physiological and metabolic changes in the body during exercise training. As mentioned previously, the initial exercise intensity in the exercise prescription depends on the clients programme goals, age; capabilities, preferences, and fitness level and should stress, but not overtax, the cardiopulmonary and musculoskeletal system (ACSM 1995).

### **2.9.3 Duration**

Duration and intensity of exercise are inversely related; the higher the intensity, the shorter the duration of the exercise. Exercise duration depend not only on the intensity of exercise but also on the clients health status, initial fitness level, functional capability, and programme goals. For improved health benefits, the ACSM and Centers for Disease Control and Prevention (CDC) recommend that every individual should accumulate 30 minutes or more of moderate physical activity on most, but preferably all, days of the week (Pate et al, 1995). This amount of physical activity can be achieved in either one continuous bout of exercise or multiple bouts of shorter duration throughout the day (e.g, 10 minutes bout, 3 times a day), depending on the client functional capacity and time constraints.

As the client adapts to the exercise straining, the duration of the exercise may be slowly increased about every 2 – 3 weeks. For older and less fit individuals, the ACSM

(1995) recommend increasing exercise duration, rather than intensity, in the initial stages of the exercise programme. For most clients, the duration of aerobic, resistance, and flexibility exercise work-outs should not exceed 60 minutes (ACSM 1995). This will lessen the chance of overuse injuries and exercise “burn out”.

#### **2.9.4 Frequency**

Frequency typically refers to the total number of weekly exercise sessions. Research shows that exercising 3 days a week on alternate days is sufficient to improve various components of physical fitness. However, frequency is related to the duration and intensity of exercise and varies depending on the client’s programme goals and preferences, time constraints, and functional capacity (ACSM 1995). Sedentary clients with poor initial fitness level may exercise more than once a day. When improved health is the primary goal of the programme, the ACSM and CDC Recommend daily physical activity of moderate intensity. Therefore, when you prescribe daily physical activity for an apparently healthy client, it is important to vary the type of exercise (i.e., aerobic, resistance, and flexibility exercises) or exercise mode (e.g, walking, cycling, and weight-lifting) to lessen the risk of overuse injuries to the bones, joints and muscles. Thus most fitness centres clients exercise three days a week on alternate days.

#### **2.10 Progression of Exercise and Stages of Progression in the Exercise Programmes**

Throughout the exercise programme, physiological and metabolic changes enable the individual to perform more work. For continued improvements, the cardiopulmonary and musculoskeletal systems must be progressively over loaded by

periodically increasing the frequency, intensity, and duration of exercise Pate et al (1995). When applying the principle of progression to an exercise prescription, you should increase the frequency, intensity, and duration of exercise gradually, and you should do so, one element at a time. A simultaneous increase in frequency, intensity, and duration, or in any combination of these elements, may overtax the individual's physiological systems, thereby increasing the risk of exercise – related injuries and exercise burnout. Generally, for older and less fit clients, it is better to increase exercise duration, instead of exercise intensity, especially during the initial stage of their exercise prescriptions. Herbert et al (1995).

Most individualized exercise programmes include initial conditioning, improvement, and maintenance stages.

The initial conditioning stage typically last 4 weeks and serves as a primer to familiarize the client with exercise training. During this stage, you should prescribe stretching exercises, light calisthenics, and low intensity aerobic or resistance exercises. Have your client's progress slowly by increasing exercise duration first, followed by small increases in exercise intensity (ACSM 1995). The initial stage of the exercise programme may be skipped for some physically active individuals, provided that their initial fitness level is good-to-excellent and they are accustomed to the exercise modes prescribed for their programmes.

The improvement stage of the exercise programme typically lasts 4 to 5 months, and the rate of progression is more rapid compared to the initial conditioning stage. During this stage the frequency, intensity, and duration systematically and slowly progress, increasing one element at a time, until the client's fitness goal is reached.

The maintenance stage of the exercise programme is designed to maintain the level of fitness achieved by the client at the end of the improvement stage. This stage usually begins 6 months after the exercise program begins and should be continued on a regular, long-term basis. The amount of exercise required to maintain the clients physical fitness level is less than that needed to improve specific fitness components. Thus, the frequency of a specific mode of exercise used to develop any given fitness component can be decreased and replaced with other types of physical activities. By the end of the improvement stage, for example, a client may be jogging 5 days a week. For maintenance, jogging may be reduced to 2 – 3 days a week, and different aerobic activities (e.g., roller-blading and stairclimbing) or other types of exercise and sport activities (e.g., weight-lifting or tennis) may be substituted. Including a variety of enjoyable physical activities during this stage helps to counteract boredom and to maintain the client's interest level.

## TYPES OF TRAINING AND EXERCISE MODES FOR IMPROVING PHYSICAL FITNESS COMPONENT

PHYSICAL FITNESS COMPONENT	TYPE OF TRAINING	EXERCISE MODES
Cardiorespiratory endurance	Aerobic exercise	Walking, jogging, cycling, stair climbing, simulated cross-country skiing, aerobic dance and step aerobic
Muscular strength and muscular endurance bone strength	Resistance exercise Weight-bearing aerobic exercise and resistance exercise	Free weight and exercise machines, walking, jogging, aerobic dance, step aerobic, stair climbing, simulated cross country skiing, tree weight and exercise machine.
Body composition	Aerobic exercise and resistance exercise	Same modes listed for cardiorespiratory endurance and muscular strength.
Flexibility	Stretching exercise	Static stretches and PNF Stretches
Neuromuscular tension/stress	Relaxation exercises requiring mild physical exertion and concentration	Progressive relaxation exercise and Tai Chi.

**PNF** = Proprioceptive neuromuscular facilitation.

### 2.11 Preliminary Screening of Participants

The preliminary screening of participants should be accomplished for the purpose of diagnosis, exercise prescription, and attainment of physiologic and orthopedic baseline data. The major components of the preliminary screening should be first, cardio diagnosis screening consisting of a graded exercise test selected blood chemistries, and a risk factor score along with a physician's subjective appraisal of the participant; second a body composition assessment utilizing appropriate population

specific skin fold formulas or underwear weighing techniques. And third, questionnaires relative to the participant's nutritional exercise and leisure habits. Whenever appropriate, proper consent and referral forms should be used.

The graded exercise stress protocol is a very important part of the university-based fitness program. The objectives of the exercise stress test should be to:

1. Assess physiologic performance in response to low, moderate, and high workloads;
2. Prescribe exercise; and
3. Provide baseline data for progress assessment.

An important advantage of the university setting is that a stress-testing laboratory offers the opportunity to conduct a graded exercise test under controlled conditions, assuming all participants are evaluated by the same team of clinicians utilizing the same instruments, methods, and procedures for establishing data. The brief discussion which follows serves to reinforce the importance of carefully controlled stress-testing protocol and reliable assessment of participant progress and program effectiveness.

Exercise prescription is quite often based upon a maximal heart rate value or predicted maximal MET level achieved while exercising on a tread-mill or bicycle ergo meter. While prescribing exercise based upon training heart rate has distinct advantage over METs symptom-limited test can occur in order people. Wilmore and Sidney and Shepherd present excellent discussions on exercise prescription and assessment of physiologic improvement in response to exercise.

Attempt to assess physiologic responses to training should not be limited to treadmill test designed to measure or predict maximal aerobic capacity or maximal heart rate. Such test may often be insensitive to a person's cardiopulmonary responses to stress at low or moderate intensities of effort.

When administrating a graded exercise stress test, one should follow the guidelines established by the American College of Sport Medicine. Heart rate, blood pressure, double product (HR x systolic BP/100), respiratory exchange ratio should each be assessed at all workloads during a graded exercise stress test. If each physiologic parameter is graphically plotted at low, moderate, and high workloads, oxygen pulse change, for example, can provide valuable baseline data. The baseline graphs can later be compared to post-training graphs. A post program exercise stress test may, for example, show a less drastic rise in oxygen pulse at a moderate workload. This would indicate that the heart is pumping more oxygen per beat at moderate workloads as a result of training.

When a graded exercise stress-test protocol is followed as suggested above, the data obtained can be very sensitive to the specificity of response to exercises of different intensities, durations, frequencies, and modalities. In view of this, it is suggested that such tests be performed in the same laboratory on all participants in an effort to insure a carefully controlled setting. If a university-based fitness program is organized properly through coordinated effort with the medical community, a common stress-testing laboratory will become an integral part of the program.

## 2.12 Staffing Consideration

Staffing according to Ikyioha (2001) entails the personnel functions of recruiting, selecting, assigning, training, promoting, discipline, staff welfare and development. Adequate staffing is reflected in the number and quality of staff recruited and trained to handle organizational task. He went further to explain that staffing effectiveness could also be linked to decision-making, communication, and evaluation. The survival of any organization he opined is as good as the quality of employees it has. It is therefore necessary that quality staff be credited, motivated and sustained in order to foster efficiency and effectiveness. Ikhioya, (2001).

According to Dale, (1988) the level of staffing for a facility is often influenced by a variety of factors, including its size, budget and the number of members. As a result, it is a common practice for one staff person often to assume multiple job functions. In other instances, certain positions in health/fitness facility may require certification, (Kingsbury, 1990). The certification process for personnel in those positions according to Kingsbury et al (1990) may be administered by a governing body or an organization that oversees a given physical activity area.

These programs are designed to serve the following groups of people:

1. The apparently healthy, asymptomatic, sedentary adult past the age of 35 with additional risk factors and individuals of any age with multiple risk factors and who are found to be at moderate to high risk are candidates for the preventive health program. The program is not for people below the age of 35 who are physically active on a regular basis and at below moderate risk.

2. Asymptomatic individuals with multiple risk factors, individuals with positive graded exercise test results (ischemia and severe arrhythmias) and symptomatic individuals who are judged to be at high risk and are candidates for the cardiac intervention program.
3. Individuals who are a minimum of six to eight weeks after myocardial infarction or bypass and valvular surgery are placed in the cardiac rehabilitation program.

The source of participants for three programs include the following:

1. Employees of North Eastern University are candidates for programs conducted on the Boston campus.
2. Students attending University College (part-time, evening division). North Eastern University, enroll in programs presently conducted on the Boston and Burlington campuses.
3. Employees of major corporations such as Gillette Company and the Polaroid Corporation enroll in programs conducted on the Boston campus and at the company's site provided the company has the facilities.
4. Employees of small firms located in Boston's back Bay and Prudential Center areas are close to North Eastern's campus.
5. Residents of the area surrounding the Boston and Burlington campuses.
6. Cardiac patients referred from physicians and outpatient programs in hospitals in the greater Boston area are eligible for the cardiac rehabilitation program.

### **2.13 Preventive Health Programs**

The programs that emphasize cardiovascular disease prevention and health promotion begin with a cardiovascular medical and physical fitness evaluation for all participants. Some elect to take this evaluation only and utilize the results for their own purpose in consultation with their physicians. Most participants, however, enroll in a complete course in cardiovascular health and exercise which includes the medical evaluation at intake, three month of thrice weekly exercise classes, weekly health seminars in coronary risk reduction, and a reevaluation at the completion of the three months to measure progress. Graduates of the course or those completing just the evaluation are eligible to participate in the fitness maintenance programs, which include a jogging club and courses in aerobic swimming aerobic dance and competitive running. For executive groups of between 6 to 12 there is the executive stress-management program. After completing the three-months course in cardiovascular health and exercise, these groups participate in a an extended nine-day experience of camping canoeing and climbing in the wilderness for the purposes of team building and individual stress management.

### **2.14 Benefits of Preventive Health Programs**

Preventive health program can improve an individual's physical fitness by increasing functional capacity (maximal oxygen uptake), decreasing resting and sub maximal exercise heart rates and blood pressures and increasing the heart's stroke volume. Body weight and percentage of body fat can also be reduced especially if exercised is combined with proper diet. Increased physical activity and decreased body fat can significantly decrease serum triglycerides and cholesterol and can increase high-

density lipoproteins, all of which reduce coronary risk. Stress-related behaviors such as tension. Anxiety, depression, anger, hostility, and fatigue can be exchanged for vigor, alertness, and jole de viver. Certain personality characteristic (speed and impatience, high job involvement, and hard driving motivation) associated with increased risk such as the composite type A personality may be modified as people regular stimulation from exercise seek it less often from nicotine, caffeine, and alcohol.

In addition to benefiting individuals, these programs can benefit organization. Similar programs have been shown to improve employee morale, efficiency, and productivity. Absenteeism and extended losses due to hospitalization and disability may be decreased with improved employee health and fitness. Group health and life insurance premiums may decrease as a result of demonstration a reduction in paid benefits. These considerations are important in view of recent statistics released by the American Association of Fitness Director in Business and Industry. According to the group, coronary disease results in \$3 billion per year in direct costs \$28 billion in indirect costs from death and disability, 130 million lost work days annually.

### **2.15 Cardiovascular Medical and Physical Fitness Evaluation**

Although some symptoms of coronary artery disease, such as angina pectoris, are often apparent in the heart disease victim, approximately 20% of all sudden deaths were not very few noninvasive clinical methods used in the initial diagnosis of this hidden killer.

In addition to angina, there are certain change on both the rising and exercise electrocardiogram (ECG) and alterations in serum enzyme concentration suggestive of either an impending or pervious myocardial infraction.

However, an individual's relation risk of suffering a myocardial infraction can be estimated by identifying a variety of health factors that have been statistically linked with the development of coronary artery disease. These coronary risk factors includes hypertension, hyperlipidemia, cigarette smoking, family history of heart disease, diabetes, obesity, physical inactivity, stress, type A personality, and certain ECG abnormalities. Before one begins a program of preventive health which includes exercise, these coronary risk factors must be identified and evaluated. This is particularly critical for the sedentary male past the age of 35 who may possess any one or more of the risk factors.

This test battery is designed to evaluate the individual's cardiovascular health status, identify and evaluate his coronary risk profile, evaluate his functional capacity and physical fitness, and provide guidelines for establishing the initial exercise prescription. The evaluation begins with a detailed review of the participant's present, past and family medical history including a survey of nutritional, smoking, drinking, and exercise habits. This is accomplished via a written questionnaire completed by the participant prior of his test date. In addition, participants who have a personal physician are required to obtain their physician's consent by having their physician complete a physician's referral form which includes basic medical data obtained from his most recent physical exam (not to exceed one year). On the day of the tests the participant is given an informed consent from which he reads and signs in the presence of a witness.

Next, a sample of blood is drawn from the participant. A complete blood count, hemoglobin, and hematocrit is routinely done to determine an individual's oxygen-carrying capacity of the blood and to screen for the presence of anemia or polyethemia.

If the white cell count is outside the normal range, a differential count is performed. Cholesterol. High density lipoprotein, triglycerides, glucose, and serum enzymes are obtained from the SMA 25 results, and a lipid profile is developed and evaluated on the basis of normative data.

Percent body fat and lean body weight are estimated from obtaining present body weight and four skin fold measurements (triceps, biceps, sub-scapular, and suprailiac) and utilizing the regression equations developed by Durnin and Wormesley. The percent body fat is then evaluated on the basis of normative data. From these data an ideal percent fat is chosen, and an ideal weight and projected weight loss is then calculated.

Vital capacity and forced expiratory volume in one second are obtained present on a respiratory. The results are used to screen for the presence of pulmonary obstruction disease (asthma, bronchitis, emphysema, and so forth) which will limit functional capacity and improvement in cardiovascular endurance. A cardiopulmonary examination is conducted by a cardiologist prior to the graded exercise test.

The graded exercise test is conducted on a motor-driven treadmill according to either the Bruce, or Wilmore protocols depending upon the age, health status, and estimated functional capacity of the participants. A 12 lead ECG and blood pressure is obtained prior to exercise (supine, standing and after 20 seconds of hyperventilation) at the completion of each. Stage of the exercise protocol and at two minute intervals of a walking recovery for six minutes or until the heart rate is less than 100 beats per minutes. Participants are encouraged to exercise to voluntary maximal exertion or until their heart rate equal or exceed the age-projected maximum heart rate. Maximal oxygen

uptake is predicted from the treadmill speed and elevation, and the functional capacity is then evaluated on the basis of normative data. The heart rate and blood pressures obtained at each stage of the exercise test are plotted on a graph, and the hemodynamic response to exercise is evaluated. The 12-lead ECG's are evaluated by the cardiologist for changes suggestive of ischemia and the presence of arrhythmias.

Maximal oxygen uptake as well as minute ventilation, frequency of ventilation, tidal volume, respiratory exchange rates, and METS can be obtained directly with the use of an automated metabolic and pulmonary measurement system. This is an option that is used routinely for everyone.

Low back dysfunction is a prevalent problem among the adult population and is chiefly due to tight, inflexible low back muscles and weak abdominal muscles causing a forward tilting pelvic girdle and increased lordosis. Flexibility of the low back extensor muscle and hip extensors is evaluated with a sit and reach test. Abdominal muscle strength and endurance is evaluated by the maximum number of six-ups the person can perform in one minute. Overall body strength is grossly estimated from grip strength obtain with a grip dynamometer.

Three personality and behavioral inventories are administered in a comfortable conference room following the individual's taking a shower and changing back into street clothes. The results from these tests are associated with coronary artery disease. Aspects of the California Psychological Inventory are used to measure the traits of sociability, self-control, achievement and flexibility. The Jerkins Activity Survey assesses type A personality traits in a composite score as well as the components of speed and impatience, job involvement, and hard driving scores. The profile of mood

state measure the six stress-related mood state of tension and anxiety, depression, anger and hostility, vigor, fatigue, and confusion.

The results of the cardiovascular medical and physical fitness evaluation are presented to the participant and to the referring physician via-a computer generated three-page report which includes an evaluation of all sores (percentage of body fat, blood lipids, blood pressures, heart rate, maximal oxygen uptake, pulmonary function, and pulmonary function tests) on the basis of age group norms, a graph of heart rate and blood pressure response to the graded exercise test, ECG interpretation, and a coronary risk profile. The results are further interpreted, to the individual in a two-hour lecture approximately five days after testing and in individual consultation with the physician if warranted.

All testing is conducted in the exercise physiology laboratory at North Eastern's Boston campus. The complete test battery requires two and one-half to three hours to complete.

## **2.16 Exercise Classes**

Each one-hour exercise class includes 15 minutes of warm-up exercise, 20 to 40 minutes of jogging at a prescribed intensity and duration, and 10 minutes of warm-down exercises. Each participant's exercise program is individually prescribed, based on the initial evaluation results.

The initial exercise prescription is set according to the American College of Sport Medicine guidelines recommendations. The exercise intensity is set between 70% to 85% of the person's maximum heart rate obtained on the graded exercise test.

Individuals begin exercise with their heart rate within this target zone for 2 minute work interval with 1-minute recovery intervals alternated to total 30-minutes of intermittent exercise progression is applied from this base by increasing the duration of each work interval and decreasing the number of recovery intervals until the prescribed intensity can be sustained for 30 – 40 minutes in duration. Classes meet at a frequency of three times per week (Monday, Wednesday, and Friday), and participants are encouraged to engage in a fourth session on the weekend when they become reconditioned.

Exercise is directed by exercise specialists who continuously monitor each individual's exercise prescription. The exercise specialist-to-participant ratio is no greater than one to six in order to ensure individual attention, Bicycle ergo meters and treadmills are available for anyone for whom jogging is inadvisable.

#### **2.17 Fitness Maintenance Program Jogging Club**

The purpose of the jogging club is to provide a structural exercise program for people completing the cardiovascular health and exercise course. Although some people can develop an exercise habit within three months: six months to a year in a structured and disciplined program are necessary for most people to become sufficiently motivated to continue regular exercise as a way of life.

As an incentive, the Jogging Club offers awards for joggers who accumulate 50, 100, 250, 500, 750, and 1,000 running miles. In addition, members' names and accumulated mileage are published in the club's quarterly newsletter, cardiovascular

lifelines. Members can choose to participate in from 9 to 12 sessions a week in structured warm-ups conducted by exercise leaders, and they have the use of exercise rooms, the indoor running track, lockers, and the shower facilities located in the Cabot Physical Education Center.

The road runners is a branch of the club for members entering competitive road races, social events, conducted annually by the club's social committee, include a spring Fun Run, a full tasting party, and an awards banquet.

Membership is open to graduates of the cardiovascular health exercise course. Full membership includes participation in the mileage club, subscription to cardiovascular lifelines, participation in structured warm up classes, and use of the Cabot locker room and indoor running track. Associate membership includes participation in the mileage club and subscription to cardiovascular lifelines. No facilities privileges are included.

## 2.18 **Personnel**

Everyone has to go through orientation to use the building so they did. The role of the fitness centres staff and other Presbyterian homes and employees was also the development of emergency action plans, policies and procedures and rules. The fitness centres staff has been carefully selected. Because of the safety and well being issues, these staff members have to have a clear understanding of the unique situation in which they are working and be able to relate to older adults their families and guests in a professional thoughtful, and courteous way. It has being beneficial to ongoing growth of the programme to have the fitness centres staff involved in all different aspects of

activities at the facility. It has help to tie the whole wellness approach to programming together.

A coordinator teaches the majority of aquatic classes and supervises three part-time life-guides. Contract teachers come in to do specialized classes. This gives some flexibility in what is offered and give residents an opportunity to choose classes and instructors that most closely meet their needs. It was important as a part of the planning process, that staff members involved in programming understand what the current trends in the field of fitness were this involve going to workshops, conferences, getting certifications and tapping into resources that has been very valuable in developing program were people that the residents already knew and trusted.

One of the feature a fitness centres is that it appeals to people of all ages guests and families want to use it ad very importantly, staff want it. This was discussed extensively in the planning process and it was realize that there are some real pluses to making use of the centre and employee benefit. First of all employed wellness; an employee group that is exercising is, as supporting by emerging research, more likely to be healthy and happy. Secondly use the centre and reap benefits, they are more likely to encourage resident participation. Employees encourage resident and exercise and look for balance in their lives and they need strive for that wellness in their own lives. There are specific hours at the beginning and the end of the workday Monday to Friday, that employee can use the facility.

Two employee water aerobic classes a week and three employees land aerobic classes a week are provided. As a result of employee interest in exercise and lifestyle changes, there is now an employee weight management and maintenance program and

employee family might at the fitness centre. The community has sponsored breast cancer awareness month events and supported several outside work/run teams. This is potential growth area of the overall program and it is an out standing employee benefit. Van et al (1988).

### **2.19 Programme**

The benefit of adding a fitness program to our-all activities program. The Kimble fitness and therapeutic center program is a part of the overall activities offerings at Presbyterian homes north campus. Using a wellness model, basic information was disseminated to educate resident and staff. Wellness is after all, not a place but a state of mind. The place can provide valuable tools to achieve personal goals through a healthy balance of recreation, self development, physical activity, fellowship and fun.

The development of a successful program is depending on the support of the community it is designed to serve. It takes time, energy and reactivity to pull together the ideas that will gain support of the constituents of the program. The benefit to a fitness and wellness program are endless. The reasons for people to participate are countless and well established. People will feel better; have more energy, less stress, better range of motion, better endurance, more stamina and a multitude of other scientifically proven physical and psychological benefits. The structure, the schedule, the staffing, and the marking of the program will all contribute to the success of the program. Developing a program is challenging and a lot of fun. Developing a program and or designing a facility is an opportunity to see a fantasy become a reality.

## 2.20 **Fitness Activities**

Information about program in the fitness centre continues to be important. There are monthly schedules and calendar and flyers about special events. Because fitness centres has become a center piece of campus life and attracts prospective residents. It has helped some people make the choice to move in earlier than they might have otherwise.

The “sample daily schedule” of what a typical day might be was distributed. This “fantasy” schedule had descriptions of classes and events and a primer on the fitness centre which answered questions most frequently asked about transportation programs, amenities and facilities. By getting information out of residents so that they could react to it, it was possible to hear ideas and concerns and be better able to manage information about the centre. There will always be reasons why a person is unable, unwilling or concerned about using a fitness facility.

During the planning phase, it was important to increase the number of exercise classes on the campus. There are currently six classes a week that take place outside of the fitness centre. They take place in a large assemble hall type environment and in a residents, living room type environments. The campus is very large and some of the residences are unable to make the trip over to the fitness centre on their own for physical or cognitive reasons.

Secondly, the class members were given a choice and they chose to keep their classes right where they were. If you are telling people to “using it” right where they

are participation in all of the exercise classes, in and outside of the fitness centre, has grown because of the increased emphasis on fitness programming and persistent marketing. Van et al (1988).

Developing a schedule is a continues process. It had to fit time for personal use of the exercise room and pool as well as land aquatic exercise classes and physical therapy water treatments. The first schedule was initiated with thirteen regular scheduled water exercise classes: seven in the small pool and six in the large pool. Two new classes have been added for new participants in the program. It was necessary to accommodate new exercises and get them up to level of those residents who have been at it for the two years since the opening.

Water exercise classes are the backbone of the Kimble fitness centre program. All the classes at the centre have special names such as “Water Dynamics” or “Bodies in Motion”. This helps to identify class and teacher. All the classes that take place in the larger pool are designed to use major muscle group, to increase heart rates, raise metabolism and give participant an aerobic work out.

The warm water classes stress range of motion, joint flexibility, and stretching. These classes are designed with minimal impact on feel, knees, and hips. Older adult benefit from the hydrostatic pressure of the water and find that they have an increase in muscle strength, range of motion, balance and flexibility. Many of the participants in the program had never taken a water exercise class prior to coming to fitness centre and most find the classes to be an excellent workout and a lot of fun. It has been important to encourage residents to try to the water exercise classes.

Many have found that the cross training effect of a water workout increased their fitness and they are able to exercise more frequently. Physical therapy uses the warm therapy pool, two full afternoons of the week for rehabilitation. Physical therapy has developed a total joint replacement program with two of the local hospitals and gets referrals for water therapy regularly. The physical therapy treatments are reimbursable and this program is growing steadily. The physical therapy department has developed relationship with orthopedic specialists in the area and this has helped to increase the census of patients in the health care centre. On-staff occupational therapist treats patients in the pool also.

In planning the building, it wasn't possible to anticipate that the land exercise classes would outgrow the space in the exercise equipment room. It has meant converting a large storeroom in the basement of the facility into an exercise classroom. There now have five land exercise classes in the fitness centre each week: three aerobic classes for women and two exclusively for men. The male class is taught by a male physical therapy assistant who has built up a consistent group of twenty-five men from the main campus and the men facility.

They all enjoy this opportunity to be together. Men are usually a minority group in a retirement community but this fitness centre seems to have had an effect on the male population. They seem to want to do more together. This is a monthly man's breakfast but now there is a monthly men's group that plays shuffleboard regularly, another group of men that gather to play pool, and yet another group of men working on their individual memoirs. This group of men is in the process of developing a book club and a photographic group. This all started in their exercise class.

Fitness centre teaches residents to use the exercise equipment, encourage them with tip on form and help them track their effort. In January 1995, an exercise motivation and adherence program was launched “Around the world in 80 ways”. The total group goal was to circle the globe that is 27,500 miles of walking, swimming, biking, rowing, taking exercise classes, however an individual chose to do their miles. Each individual participant got a passport to fitness and set a personal goal. Individuals got incentive prizes for every few passport turned in, including buttons, ribbons, pencils, water bottles, and T shirts. The group traveled the globe and stopped off monthly to visit places of interest; at 3,000 miles they went to phoenix and had a line dance; at 4,000 miles to Athens, Greece for a travelogue and Greek treats: they went to shanghai, China and ventured for to Chinatown for dim sum. At 10,000 miles inspection with a six-station fitness assessment, which followed up on every six months. In January 1996, the groups completed the world adventure and are now tracking exercise minutes on their way to a star. The excitement builds as they “Reach for star!”

In addition to their global and intergalactic travels, a “healthy lifestyle” program has been initiated that has featured presentations and workshops on nutrition, sleep, abdominal muscle, dance movement, aromatherapy and yoga. In the nice weather, there has been a walking club that this explored the neighborhood and occasionally gone off campus by but for exploratory walks. Celebrating water fitness week and senior health and fitness day have added special sparks to everyday exercise. This wellness programming has exposed residents to different ideas and modalities and made them more open to trying new things. They bring in articles about the “latest”

things and we post them in the exercise room. The monthly calendar includes fitness tips and cartoons collected by people connected to the facility.

Through the orientation process, individual's questions and concerns were addressed. This was a slow, gentle educational process that made everyone comfortable with the building program and staff. Orientation is given to all new residents and staff who use the building as they come to Presbyterian home.

## 2.21 **Safety**

One of the most important factors to success in this setting is the feeling of safety and security. Older exercise need to feel that staff cares and will respond if they need assistance. In facilitating a program for older adults, another ongoing function of staff is gentle follow-up and motivation. This may be simple as being certain that instructors know the names of all the participants in a class or it may mean devising a system for letting people know they are missed if they do not come to class. It is often the personal connection to teachers, classmates and staff that keep people motivated to come back to exercise. Creating a lasting commitment to exercise is as important as helping people get started. Group participation helps with exercise adherence. By emphasizing the fun and variety in an exercise program and recognizing individual achievement to enhance self esteem, it is possible to keep people coming back. Participants need positive feedback and encouragement and will often give it to each other.

## 2.22 **Operational Costs**

In the case of Kimble fitness centre operational costs have been absorbed into the annual operating budget and are paid through residents monthly fees. Some have chosen to have resident users of their fitness facility pay a membership fee or daily use fee to belong to or use their facility. Because there are differing economic circumstances among the residents of Presbyterian homes and because one of the goals of the Kimble centre was to be a community centre, it was important to have the centre available to every resident without any specific charges. Since the fitness centre program needed to have a broad base of appeal, it needed to be accessible to all people who wanted to take advantage of it. A financial reason not to exercise, such as a membership fee to join a fitness centre, is one of the most potent reason a person, especially someone on a fixed income, can come up with. Fortunately, there are individuals and organizations willing to give money to support programs that enhance well being.

## 2.23 **Exercise Classes**

The latest group exercise classes including Yoga, Pilates mat, Kwando, and reaction cycling in two studios:

Club Hours:

Monday – Thursday 5:00 a.m. – 10:00 p.m.

Friday 5:00 a.m. – 10:00 p.m.

Saturday 8:00 a.m. – 8:00 p.m.

Sunday 8:00 a.m. – 8:00 p.m.

<http://www.town-mall.net/entertainments/sport/fitness.html>.

## 2.24 Summary

The attainment of client's or participant's goals is the first focus of any establishment set up for profit. Regular exercise programme of 30 to 60 minutes, 3 to 4 days per week at 60 to 70 % of individual's vo2 max. for health and fitness of an individual is recommended. Much as any establishment is set up for profit, there should be clear objectives behind such as establishment. The attainment of such objectives should be through the provision of proper human and material resources well co-ordination and confidence in the establishment on the part of the participant Nieman, (1990) they should have a clear understanding of their needs and expectations from any establishment that they pay to have some services. With this in mind and knowing the possible limitations behind the achievement of their expected enter with the most suitable human and material resources for the provision of their needs.

Tanko (2002) maintained that training effects of exercise depend upon the amount of stress imposed upon the relevant part of the body. Siegel (1988) in Tanko (2000) reported that the effectiveness of an aerobic workout with running or other vigorous activity depends partly on the intensity of the activity. The intensity of the training must be sufficient to produce over load, other wise no gains for fitness will occur.

The management and the participants should then work together to ensure safety of life and property in the establishment. This is better achieved through the formulation of policies and guidelines and compliances on the set. (Solaja, 1990). With the increasing awareness of the benefit derived from taking part in fitness

activities and the ever-increasing people population, the government and individuals in its effort may find it difficult to provide all essential equipment in fitness centers. The economic situation in the country and the ban laid on importation of certain sporting materials necessarily calls for improvisation of materials' fitness centers and individual alike.

However, parasuraman et al (1988) emphasized that it is good to bear in mind that in improvising any physical fitness material certain factors must be considered. Such factors like the type of physical fitness programme itself, the geographical area or location of the center and the money required for the purchase of the gadgets.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

The purpose of this study was to assess clients' satisfaction with personnel, programs and facilities of fitness centers in Nigeria. This chapter discusses research design, population, sample and sampling technique, instrument for data collection, validation of instrument, administration of instrument and method of data analysis (statistical technique).

#### **3.1 Research Design**

The survey research design was adopted in this study. The design enables the researcher to use several statements and questions on the topic under investigation and respondents are given free hand to respond to the item. The responses from the respondents serve as bases for the findings and generalization.

#### **3.2 Population of the Study**

The population of this study consisted of all male and female clients of fitness centers in Nigeria ages from 21 years and above

#### **3.3 Sample and Sampling Technique**

The stratified sampling procedure was adopted. This enabled the researcher to use the 6 geo-political zones of the federation and the Federal Capital Territory. The names of the state capitals in each zone were separately written on pieces of paper,

folded and put in a container and shaken after which one paper was picked by a research assistant. The Federal Capital Territory was automatically selected for even spread of participation. This procedure produced a total of 6 state capitals and the Federal Capital Territory.

A Google search of the internet was undertaken to get the names of registered fitness centres in the selected state capitals. Participating fitness centres were picked by simple random sampling technique. By this method, the names of all the fitness centres in each of the selected state capitals and the Federal Capital Territory were written on separate pieces of paper, folded and shaken in a container, by lucky dip two paper were picked by research assistant, one after the other. This procedure produced a total of 14 fitness centres which include 2 from the Federal Capital Territory. Subjects were then selected by systematic sampling, in which case every second client attending the centre was chosen for participation, a procedure which produced a total sample size of 360 respondents...

<u>Geo-political zones</u>	<u>State capital</u>	<u>Fitness centres</u>	<u>sample</u>
South-West	Lagos	Proflex world class	49
		UNILAG Gym	26
.South-East	Enugu	Neocourts Hotel gym	25
		Nike lake gym	16
North-Central	Jos	Jos fitness studio	43
		Genesis fitness centre	35
North-West	Kano	City gym	30
		Gobabis gym	19
South-South	Asaba	Asaba township stadium gym	41
		Nation fitness gym	13
North-East	Maiduguri.	Lakechad hotel gym	12
		Gymnasium lerchenfield	20
Fed. Cap. Territory	Abuja	Nicon Hilton fitness centre	24
		The Dome fitness centre	7
Total			360

### 3.4 Validation of the Instrument

The content validity method was relied upon in determining the validity of the instrument. Fox (1969) argued strongly in favour of content validity. The face and content validity of the structured questionnaire were established through the following method:

After constructing the questionnaire, it was subjected to several stages of scrutiny to ensure that the instrument measure what it was supposed to measure. For instance the items were scrutinized by experts in the field of Exercise and Sports Science who made some recommendation for adjustment before the final draft was made. The decision of the researcher to employ experts was based on the remarks of Kerlinger(1973) in Bodundi (2004) that validation by specialists or experts is an effective method of validity..

### **3.5 Reliability of the Instrument**

According to Araoye (2004) the reliability of an instrument is determined by the consistency of the information it produced. For this research, a test-retest pilot study was conducted to determine the reliability of the instrument by the administration of the questionnaire to 10 systematically selected clients of two fitness centres in Kaduna.. The analysis of the results showed a reliability co-efficient of 0.6473 which according to Kirkendall and John (1980) was an indication of significant reliability.

### **3.6 Instrument for Data Collection**

Questionnaire was the instrument used to collect data. The questionnaire was designed in four (4) sections. Section A, was on respondents` bio-data, section B was

on quality of personnel, section C was on programmes of the fitness centres while section D was on facilities of the fitness centres.

### **3.7 Administration of Instrument**

The researcher administered the questionnaire with the assistance of the management of each of the fitness centers on first visit. The second visit was to retrieve completed questionnaires from the managers, after written letters to fitness centres earmarked for this study for the management permission and cooperation (see appendix). The letter explained the purpose of the research which is to assess clients' satisfaction of personnel, programs and facilities of fitness centres in Nigeria. Return rate was 100% because respondents were not allowed to go away with the questionnaire.

### **3.8 Method of Data Analysis**

Data collected were analyzed at the Institute of Agricultural Research (IAR). Ahmadu Bello University, Zaria.

Descriptive analysis consisting of frequency counts and percentage was used to have qualitative information while responses from clients` were analyzed using the Likert scale by which a score of 3.5 and above signified agreement. Chi-Square was then used to test the hypotheses postulated for the study at 0.05 alpha level of significance.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

#### **4.0 Introduction**

This chapter presents analysis of the results of data for this study. Results obtained were analyzed and tabulated using frequency and percentages for the demographic characteristics of the respondent and discussed in line with the objectives of the study with greater emphasis on clients' satisfaction of personnel, programs and facilities of fitness centers in Nigeria. Chi-Square test was used to test the hypotheses postulated, at 0.05 alpha levels of significance

#### 4.1 Results

**Table 4.1 Demographic Information about the Respondents**

Variable	Respondents	Percentage
<b>N=360</b>		
<b>Age:</b>		
<20 years	66	18.3
20 - 25 years	54	15.0
26 - 30 years	95	26.4
31 years and above	145	40.3
<b>Marital Status:</b>		
Single	176	48.9
Married	145	40.3
Separated	12	3.3
Divorced	27	7.5
<b>Sex:</b>		
Male	197	54.7
Female	163	45.3
<b>Qualification:</b>		
Grade II/SSCE	79	21.9
OND/NCE	130	36.1
HND/Degree	103	28.6
Post-graduate degree	48	13.3
<b>Occupation:</b>		
Schooling	96	26.7
Civil servant	253	70.3
Others	11	3.0

#### **Age of Respondents:**

The ages of the respondents in this study showed that 18.3% were below the ages 20 years were the youngest, closely followed by 15.0% are between the ages of 20 – 25 years, 26.4% were between 26 and 30 years of age while majority constituting 40.3% were 31 years and above.

## **Marital Status**

Marital status of the respondents in the various fitness centres showed that 48.9% were single and constituted majority while 40.4% were married. Those who were separated and divorced were 3.3 and 7.5 percent were the minority respectively.

The data collected on the sex of the respondents showed that, 54.7 percent of them were males, representing the majority closely followed by 45.3 percent were females.

## **Qualification**

Qualification of respondents, showed that 36.1% of the respondents in this study possessed OND/NCE certificates, this is followed by those with HND/Degree 28.6% and Grade II/SSCE 21.9% while the least 13.3% were those who possess post-graduate degree were the oldest.

## **Occupation**

Majority of the respondents in the surveyed fitness centers were civil servants and these constituted 70.3% followed by those who were still schooling 26.7%, with only few constituting 3.0% from other walks of life constituted the minority. This agrees with the earlier assertions that most of the respondents were civil servants.

**Table 4.2 Frequency and Percentage distribution of respondents according to Personnel of the fitness centres**

<b>S/No</b>	<b>Items</b>	<b>AF</b>	<b>AP</b>	<b>DF</b>	<b>DP</b>
6.	There are adequate Exercise Instructors in this fitness centers	265	73.6	95	26.4
7.	I am satisfied with the competence of the Exercise Instructors in this Fitness centre	305	84.7	55	15.3
8.	I believe the Exercise Instructors in this fitness centre possess relevant qualifications	312	86.7	48	13.3
9.	The Exercise Instructors are friendly to clients	60	16.7	300	83.3
10.	There are adequate Medical Personnel in this fitness centre.	63	17.5	297	82.5
11.	I am Satisfied with the professional competence of the Medical Personnel of this Fitness Centre	310	86.1	50	13.9
12.	The Medical Personnel of this fitness centre are friendly to clients	107	29.7	253	70.3
13.	There are adequate administrative staff in this fitness centre	315	87.5	45	12.5
14.	I am satisfied with the performance of the administrative staff of this fitness centre	315	87.5	45	12.5
15.	The administrative staff of this centre are friendly	327	90.8	33	9.2

Table 4.2, presents clients` satisfaction with Exercise Instructors, Medical Personnel and Administrative Staff of the fitness centres, 73.6% agreed that there were adequate exercise instructors while 84.7% agreed that they were satisfied with the competence of the instructors. 86.7% agreed that the exercise instructors possessed

relevant qualifications while 16.7% agreed that the exercise instructors were friendly to clients.

As for medial personnel, only 17.5% agreed that they were adequate while 86.1% agreed that they were satisfied with the professional competence of the medical personnel whereas only 29.7%.agreed that the medical personnel of the fitness centres were friendly to clients.

87.5% were in agreement that there were adequate administrative staff in the fitness centres. Similarly, 87.5% of respondents expressed satisfaction with the performance of the administrative staff. 90.8% agreed that the administrative staff were friendly to clients

Table 4.3: **Frequency and percentage distribution of respondent according to programmes of the fitness centres**

S/No	Items	Agreed Frequency	Agreed Percentage	Disagree Frequency	Disagree Percentage
16.	I am satisfied with the pre-exercise assessment programmes of this centre.	313	86.9	47	13.1
17..	Clients are always given informed consent forms to fill before being accepted into exercise programmes of this fitness centre	295	81.9	65	18.1
18..	I am always given adequate instructions before I am placed on Exercise programmes	296	82.2	64	17.8
19..	Clients are placed on exercise programmes based on their needs	299	83.1	61	16.9
20.	I always experience too much pains and fatigue after my exercise programmes	317	88.1	43	11.9
21..	I am satisfied with the exercise programmes of this centre	330	91.7	30	8.3
22..	I am satisfied with the operative hours of this fitness centre	308	85.6	52	14.4
23.	The exercise programmes of this fitness centre are too expensive	202	56.1	158	43.9

Table 4.3 shows respondents` level of satisfaction with clients` assessment, needfulness of programmes and cost of programmes of the fitness centres, 86.9% agreed that they were satisfied with the pre-exercise assessment programmes of the fitness centre while 81.9% reported that they were

always given informed consent forms to fill before being accepted into exercise programmes of the fitness centres. On the other hand, 82.2% were in agreement that they were always given adequate instructions before being placed on exercise programmes.

A total of 83.1% agreed that they were placed on exercise programmes based on their needs however 88.1% reported experiencing too much pains and fatigue after their exercise programmes, 91.7% of respondents agreed to satisfaction with the exercise programmes of the fitness centres while 85.6% were in agreement that they were satisfied with the operating hours of the fitness centres. As for cost of the programmes of the centres, 56.1% of respondents believed that the charges were too high.

#### 4.4 Frequency and percentage distribution of respondents according to facilities

S/No	Items	Agreed Frequency	Agreed Percentage	Disagree Frequency	Disagree Percentage
24	There are good roads to this fitness centre	47	13.1	313	86.9
25.	The location of this fitness centre is good	288	80.0	72	20.0
26.	This fitness centre is sufficiently close to my residence.	60	16.7	300	83.3
27.	There are adequate exercise equipment in this fitness centre.	317	88.1	43	11.9
28.	Most of the exercise equipment in this fitness centre are not out-dated	330	91.7	30	8.3
29.	The exercise equipment in this fitness centre are safe for use by clients	305	84.7	55	15.3
30.	This fitness centre is large enough to contain clients conveniently.	265	73.6	95	26.4
31.	This fitness centre is fitted with sufficient facilities for clients` comfort.	327	90.8	33	9.2
32.	This fitness centre is well ventilated	327	90.8	33	9.2

Table 4.4 shows respondents` level of satisfaction with the locations, equipment and conduciveness of the fitness centres. While only 13.1% agreed that there were good roads to the fitness centres a high majority agreed that, 80.0% agreed that the fitness centres were well located. As for proximity of fitness centres to clients` areas of residence only 16.7% were satisfied with locations.

88.1% agreed that the fitness centres were adequately equipped. Similarly a high majority, 91.7% were in agreement that exercise equipment were not out-dated. 84.7% of clients responded that the exercise equipment were safe for use.

73.6% agreed that the fitness centers were large enough to conveniently contain clients while 90.8% were in agreement that the fitness centres were fitted with sufficient facilities for clients` comfort. In similar vein a high majority, 90.8% respondents expressed satisfaction with the ventilation of the fitness centres.

#### 4.2 Hypotheses Testing

The following hypotheses were formulated and tested for this study-

##### 4.2.1 Sub Hypothesis One:

There is no significant association between clients` satisfaction and quality of personnel provided by fitness centres in Nigeria.

Table 4.5: Association between clients` satisfaction and quality of personnel

Variables	Clients` Satisfaction			
	SW (%)	NSW (%)	Total	X <sup>2</sup> Cal
Exercise Instructors	65	35	100	<b>45.20</b>
Medical Personnel	44	56	100	
Admin. Staff	89	11	100	
<b>Total</b>	198	102	<b>300</b>	

**df = 2, P-value < 0.05 and X<sup>2</sup>-critical = 5.99**  
**SW= Satisfied With; NSW=Not Satisfied With**

The results in table 4.5 shows a Chi-Square calculated of 45.20 while Chi-Square critical was 5.99. In view of the fact that Chi-Square calculated was

greater than the critical value, the hypothesis which states that there would be no significant association between clients` satisfaction and quality of personnel provided by fitness centres in Nigeria is therefore rejected. This means that clients` satisfaction was significantly influenced by the quality of personnel in fitness centres.

#### 4.2.2 Sub Hypothesis Two

There is no significant association between clients` satisfaction and programmes provided by fitness centres in Nigeria.

Table 4.6: Association between clients` satisfaction and programmes

Variables	Clients` Satisfaction			
	SW (%)	NSW (%)	Total	X <sup>2</sup> Cal
Clients` Assess.	84	16	100	32.07
Needfulness	87	13	100	
Programme Cost	56	44	100	
Total	227	73	300	

**df = 2, P-value < 0.05 and X<sup>2</sup>-critical = 5.99**  
**SW= Satisfied With; NSW=Not Satisfied With**

Table 4.6 shows a Chi-Square calculated of 32.07 which is higher than the critical value of 5.99.; the hypothesis which states that there is no significant association between clients` satisfaction and programmes provided by fitness centres in Nigeria is, therefore, rejected. By this it means that the satisfaction of clients was significantly associated with the programmes of fitness centres

### 4.2.3 Hypothesis three

There is no significant association between clients` satisfaction and facilities provided in the fitness centres in Nigeria.

Table 4.7: Association between clients` satisfaction and Facilities

Variables	Clients` Satisfaction			
			Total	X <sup>2</sup> Cal
Location	37	63	100	<b>77.99</b>
Equipment	88	12	100	
Conduciveness	85	15	100	
Total	210	90	<b>300</b>	

**df = 2, P-value < 0.05 and X<sup>2</sup>-critical = 5.99**  
**SW=Satisfied With; NSW=Not Satisfied With**

The result of the analysis in table 4.7, shows that Chi-Square calculated was 77.99 while that of the table was 5.99.therefore leading to rejection of the hypothesis which states there is no significant association between clients` satisfaction and facilities provided in the fitness centres in Nigeria.

## 4.3 DISCUSSION

### 4.3.1 Personnel

Staffing, according to Yong (2000), entails the personnel function of recruiting, selecting, assigning, promoting, discipline, staff welfare and development. It is in line with this study which sought to find out whether these attributes of staffing matters were put into consideration by the Fitness Centres in Nigeria.

The finding of this study showed that most of the respondents were in agreement that their Fitness Centres not only had adequate number of staff, but also that they have in their employment, trained and qualified staff to handle the organizational task. This finding is in agreement with Ikyioha (2001), who advocated for adequate staffing. In his words adequate staffing is reflected in the number and quality of staff recruited and trained to head organizational task. This is understood in view of the fact that the survival of any organization is as good as the quality of employees available.

It should be noted that one of the major keys to any successful organization is the people within the organization. All factors considered the better that people know their jobs and how their jobs relate to other aspects of the organization, the better they perform and the better the service they provide to the users, (Oliver, 1997; Ramaswamy, 1996).

The findings of this study revealed significant association between the availability of adequate qualified personnel, programme and availability of facilities and equipment in the Fitness Centres. One of the purposes in this study was therefore to find out whether Fitness Centres in Nigeria operate with qualified personnel. This finding is in line with Ikyioha (2001), who said that Fitness Centres should have qualified personnel. This is understandable in view of the fact that Fitness Centres are profit oriented and this cannot be ensured unless their operations are effective and efficient. This view is also supported by Benfari, et al (1979) when they stated that Fitness Centres qualified personnel for efficiency and administrative effectiveness.

To further support the findings of this research, Cantu, (1980) asserts that qualified personnel of a corporate Fitness Centre involve supervision by either human

resource director, or medical personnel. Qualified personnel according to Ikyioha (2001), entails the personnel function of recruiting selecting, assigning, training, promoting, disciple, staff welfare and development.

On the other hand, the organizational structure of a profit making commercial Fitness Centres organize their programmes with qualified personnel from the field of medicine, exercise and sports sciences and behavioural sciences. These Centres have qualified personnel, maintained mainly by the operational director (Benfari et al 1979).

However, in Nigeria, the Fitness Centres have not reached the status of a modern corporate fitness Centres that have branches in different places, it is a cosmopolitan business.

#### **4.3.2 Programme**

This study attempted to find out whether Fitness Centres in Nigeria, follow established and acceptable programme that will meet the needs and aspiration of the teaming population of Nigeria.

The result of the study showed that most fitness centres operated well structured programmes that met the needs and goals of the clients. This suggests that programme and programme execution cannot be ignored, a view supported by Mull, et al (1997) when they stated that Fitness Centres need a well established programme set-up for efficiency and effectiveness programme process in this study include fitness activities, land exercise, water exercises and safety programme, seminars and aerobic dances.

### 4.3.3 **Facilities**

The findings of the study showed that most of the respondents were in agreement that their Fitness Centre had adequate number of facilities and equipment to handle the organizational tasks. This finding is in line with Gronnous, (1997) who said that Fitness Centres should have a well structured adequate facilities and equipment. This view is also supported by Hockey et al (1973) when they stated that Fitness Centres need adequate motivating facilities and equipment. This is understandable in view of the fact that Fitness Centres are profit oriented and this cannot be ensured unless their operations are effective and efficient with adequate captivating instrument and there are provisions for immediate replacement of damage ones.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Summary

Recent development in Exercise and Sports Science has focused great attention on general life-styles of our modern age to live active life-style. Many fitness Centres have come up in recent time in many cities in Nigeria. However, most of them do not seem to be patronized either due to poor quality of service or because of the inability to bear the cost. Service quality depend on such areas as availability of qualified personnel, the type of programme they operate, adequate facilities and equipments and whether they meet their clients needs.

The purpose of this study was to investigate clients' satisfaction of personnel, programs and facilities at Fitness Centres in Nigeria. Review of relevant literature was carried out in the second chapter such as the art and science of exercise prescription, components of physical fitness, corporate and commercial fitness centres, personnel, and programmes.

To achieve the purpose of this study, five research questions were asked which led to the formation of three hypotheses. The statistical method used in the data analysis includes frequency and percentages while Chi-Square was used to test the three hypothesis postulated in this study. The three hypotheses postulated were rejected because significant associations were observed.

The instrument used for the study was the questionnaire. Copies were sent to jurors for vetting, this was done for both face and content validity.

The survey research method was used in this study. The population for the study was made up of the entire clients of the fitness centres in Nigeria. A total of 360 copies of questionnaire were administered and were correctly filled and returned.

## **5.2 Conclusions**

On the basis of the results and in view of the limitations of the study, the following conclusions are drawn:

1. Most of the fitness centers had adequate personnel.
2. The fitness centres in Nigeria had appropriate programmes for most clients
3. Fitness centres in Nigeria had adequate facilities to meet the needs of most of their clients.

## **5.3 Recommendations**

Based on the findings of this study the following recommendations were made.

1. That fitness centres should continue to up-grade their programmes so as to continue to meet the needs of clients.
2. That the exercise instructors should continue to up-date their knowledge on principles and practice of exercise so as to ensure continued satisfaction of clients.
3. That fitness centres facilities should continue to be up-dated to ensure continued satisfaction of clients.
4. That Government and Private individuals should set up more fitness centres so as to reduce the distances that clients would have to cover from their homes.

#### 5.4 **Suggestions for Further Research**

1. Effects of regular exercise programme on age related musculoskeletal disease among male and female.
2. Effective use of fitness centres, a tonic to healthy life of male and female adults.

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**APPENDIX (A)**

**DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION  
FACULTY OF EDUCATION  
AHMADU BELLO UNIVERSITY  
Z A R I A**

**Our Ref. No.** \_\_\_\_\_

**Date** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear Sir/Madam,

**REQUEST TO VET A QUESTIONNAIRE**

OMAJUWA ISAAC is a postgraduate student of Sports Science in the above Department.

In partial fulfillment of the requirement of his Master degree Programme in Exercise and Sports Science. He is conducting a research on “Clients` Satisfaction of Personnel, Programmes and Facilities of Fitness Centres in Nigeria”.

Based on your experience and professional expertise, you have been chosen to critically examine the questionnaire and make necessary imputes for its improvement.

I therefore attach a copy of the questionnaire and hypotheses of the study for your critical appraisal and corrections at your earliest time, so that he can utilize the instrument for further necessary action.

Thanking you.

Yours faithfully,

(Sgd)  
Prof. C.E. Dikki  
Major Supervisor

**APPENDIX (B)**

**DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION  
FACULTY OF EDUCATION  
AHMADU BELLO UNIVERSITY  
Z A R I A**

**Our Ref. No.** \_\_\_\_\_

**Date** \_\_\_\_\_

Dear Sir/Madam,

**LETTER OF INTRODUCTION**

OMAJUWA ISAAC is a postgraduate student of the above Department specializing in M.Sc “Exercise and Sport Science”. In partial fulfillment of the requirements for the award of his master’s degree, he is conducting a research on “Clients` Satisfaction of Personnel, Programmes and Facilities of Fitness Centres In Nigeria”.

It shall be highly appreciated if you can help him by filling this questionnaire. This exercise is purely for academic purpose and all information supplied there in shall be treated as confidential.

Thanking you very much for your anticipated co-operation.

Yours Sincerely,

(Sgd)  
Prof. C. E. Dikki  
Supervisor

**APPENDIX (C)**

**DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION  
FACULTY OF EDUCATION  
AHMADU BELLO UNIVERSITY  
Z A R I A**

**QUESTIONNAIRE**

**CLIENTS' SATISFACTION OF PERSONNELS, PROGRAMMES AND  
FACILITIES OF FITNESS CENTERES IN NIGERIA**

**SECTION (A): BIODATA**

**INSTRUCTION:**

Please mark (x) in the space provided for the option with best agrees with your opinion or view on each of the questions/statements. Do not mark (x ) more than one space except where otherwise indicated.

1. Chronological Age
  - (a) less than 20 years ( )
  - (b) 20 - 25 years ( )
  - (c) 26 - 30 years ( )
  - (d) 31 years and above ( )
2. Marital status
  - (a) Single ( )
  - (b) Married ( )
  - (c) Separated ( )
  - (d) Divorced ( )
3. Sex
  - (a) Male ( )
  - (b) Female ( )
4. Highest qualification
  - (a) Grade 2/SSCE ( )
  - (b) Diploma/NCE ( )
  - (c) HND/Bachelor degree ( )

- (d) Postgraduate ( )
5. Occupation
- (a) Civil Service ( )
- (b) Schooling ( )
- (c) Teaching/Lecturing ( )
- (d) Coaching ( )
- (e) Other (specify) \_\_\_\_\_

**SECTION (B):**

**Quality of Personnel**

Please tick (√) the column that best represent your feeling against each statement i.e. Strongly Agreed (SA), Agreed (A), Undecided (U), Disagreed (D), Strongly Disagreed (SD)

S/No	Items	SA	A	U	D	SD
6.	There are adequate Exercise Instructors in this fitness centers					
7.	I am satisfied with the competence of the Exercise Instructors in this Fitness centre					
8.	I believe the Exercise Instructors in this fitness centre possess relevant qualifications.					
9.	The Exercise Instructors are friendly to clients					
10.	There are adequate Medical Personnel in this fitness centre.					
11.	I am Satisfied with the professional competence of the Medical Personnel of this Fitness Centre					
12.	The Medical Personnel of this fitness centre are friendly to clients					

13.	There are adequate administrative staff in this fitness centre					
14.	I am satisfied with the performance of the administrative staff of this fitness centre					
15.	The administrative staff of this centre are friendly					

**SECTION (C):  
Programmes**

<b>S/No</b>	<b>Items</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
16.	I am satisfied with the pre-exercise programme assessment of this centre					
17..	Clients are always given informed consent forms to fill before being accepted into exercise programmes of this fitness centre					
18..	I am always given adequate instructions before I am placed on Exercise programmes					
19..	Clients are placed on exercise programmes based on their needs					
20.	I always experience too much pains and fatigue after my exercise programmes					
21..	I am satisfied with the exercise programmes of this centre					
22..	I am satisfied with the operative hours of this fitness centre					
23.	The exercise programmes of this fitness centre are too expensive					

**SECTION (D):****Facilities**

<b>S/No</b>	<b>Items</b>	<b>SD</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
24	There are good roads to this fitness centre					
25.	The location of this fitness centre is good					
26.	This fitness centre is sufficiently close to my residence.					
27.	There are adequate exercise equipment in this fitness centre.					
28.	Most of the exercise equipment in this fitness centre are not out-dated					
29.	The exercise equipment in this fitness centre are safe for use by clients					
30.	This fitness centre is large enough to contain clients conveniently.					
31.	This fitness centre is fitted with sufficient facilities for clients` comfort.					
32.	This fitness centre is well ventilated					