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PSYCHOLOGY OF THE UNIVERSITY OF LAGOS, NIGERIA

ASSESSMENT AND MANAGEMENT OF NEGATIVE SELF-IMAGE AMONG SELECTED CATEGORIES OF NIGERIANS

2009

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(989008228)

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT OF AWARD OF DOCTOR OF PHILOSOPHY DEGREE (Ph.D) IN PSYCHOLOGY OF THE UNIVERSITY OF LAGOS, NIGERIA.

2009

SCHOOL OF POSTGRADUATE STUDIES
UNIVERSITY OF LAGOS

CERTIFICATION

This is to certify that the Thesis:

"ASSESSMENT AND MANAGEMENT OF NEGATIVE SELF- IMAGE AMONG SELECTED CATEGORIES OF NIGERIANS"

Submitted to the
School of Postgraduate Studies
University of Lagos

For the award of the degree of
DOCTOR OF PHILOSOPHY (Ph. D)
is a record of original research carried out

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DEDICATION

To Osita, Chinedum, Onyeka and Isabel

ACKNOWLEDGEMENT

My profound gratitude goes to all who have contributed directly or indirectly in making this study a reality. Their patience and understanding made a lot of difference to me. I am immensely grateful to God for my good health and peace of mind. To all the participants that responded to the questionnaires, I say thank you all for your time and encouragement.

I am particular grateful to my diligent supervisors, Professor P. F. Omoluabi and Dr E. Akinsola, who instilled in me the virtues of hard work and critical thinking. Many thanks to the Council for the Development of Social Science in Africa (CODESRIA) for the Small Grant for Thesis writing and for great interest in the career development of young African scholars. I am also grateful to my friends especially Ndidi, Uzor, Ojo, Ayodele, Joyce, Demian, Nwanna among others for their encouragement and interest in my studies. To Abu Momoh, Adele Jinadu, Bayo Olukoshi and Mike Ifeagwasi, thank you all for being good role models. I learnt so much from observing your well-rounded scholarship and great love for academics. To my lecturers: Prof. Oguntuashe, Prof. Makanju, Dr Akintayo, Dr Akinfala, Dr Agiobu Kemmer, Dr Ehon, Dr Fagbohungbe, Dr Ayenibiowo, Mrs Ayeni among others, I am deeply grateful to them for the warmth and conducive professional interaction.

I am truly indebted to Michel Dalziel, who came to my aid when my computer crashed during word-processing my thesis; and to my sweet Japanese friends -Yasue,

Akemi, Maria and Kanata, Mayumi, Naomi, Teresa, Hiroshi, Ann Sasaki, Seilo, Beata and Mrs Mayagami, I say Arigatogoziamashta (Thank you), for making my one year stay in Japan a beautiful experience.

I cherish the upbringing and moral support I got from my parents Barrister Francis Achike Onukwuba and Theresa Onukwuba. Thank you dad for constructive criticism, and to mum for your ready smile, prayers and words of encouragement. To my siblings – Ekwife, Chineze, Emman, Martin, Rosemary, Okwudili, Uju, Lawrence and Tony, I thank you all for your words of encouragement and prayers.

Above all, my very heartfelt appreciation goes to Osy, who was very encouraging and patient. Thank you so much for your understanding and for standing by me throughout this programme. To our restless but sweet children: Chinedum, Onyeka and Isabel, my life is beautiful and good because of your sweet faces.

Jane-Frances Agbu

June, 2009

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LIST OF ABBREVIATIONS

1 ACL : Adjective Checklist.

2 APA : American Psychological Association.

3 ABIS : Amputees Body Image Scale.

4 ABRS : Amputees Behaviour Rating Scale.

5 BDDQ: Body Dysmorphic Disorder Questionnaire

6 BUT: Body Uneasiness Test.

7 BDD : Body Dysmorphic Disorder.

8 BDI : Becks Depression Inventory.

9 DAI : Dental Aesthetic Index.

10 DSM-IV : Diagnostic and Statistical Manual of Mental Disorders.

11 EDE-12: Eating Disorder Examination 12th edition.

12 EDI-2: Eating Disorder Inventory-2.

13 FNE : Fear of Negative Evaluation.

14 HADS: Hospital Anxiety and Depression Scale.

15 IBQ : Illness Behaviour Questionnaire.

16 ISE : Index of Self Esteem.

17 MBRSQ : Multidimensional Body – Self Relation Questionnaire.

18 MMPI : Minnesota Multiphasic Personality Inventory.

19. MPB : Male Pattern Baldness.

20 MBSRQ: Multidimensional Body-Self Relation Questionnaire.

21 NSII : Negative Self Image Inventory.

22 OSIQ: Offer Self Image Questionnaire.

23 OSIQ : Offer Self Image Questionnaire.

24 PPA : Perceived Physical Ability.

25 PSE : Physical Self Efficacy.

26 PSC : Perceives Self Presentation and Confidence.

27 REBT : Rational Emotive and Behavioural Therapy.

28 SIQYA: Self Image Questionnaire for Young Adults.

29 SIQYA : Self Image Questionnaire for Young Adults.

30 SMS : Social Maladjustment Scale.

31 STAI: State Trait Anxiety Inventory.

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Abstract

The aim of this study was to assess the nature and characteristics of negative self-image among selected categories of Nigerians and manage those that manifested high negative self-image. In doing this, the study was carried out in two phases namely: the test development and standardization of Negative Self-Image phase and the assessment and management phase. In the test development phase, test items that constitute the Negative Self-Image Inventory (NSII) were generated and pilot-tested on a sample of 30 participants. The final version was then administered to a sample of 500 selected Nigerians (250 males and 250 females), comprising professional athletes, keep-fit exercisers, orthopaedic patients, psychiatric out-patients as well as others from normal population (that is, those not categorized under the aforementioned groups). NSII was administered concurrently with a similar test instrument - Fear of Negative Evaluation (FNE), so as to determine its concurrent validity.

In the assessment and management phase, NSII in addition with the following tests instruments (FNE), Adjective Checklist (ACL), Index of Self Esteem (ISE), Illness Behaviour Questionnaire (IBQ); Physical Self-Efficacy Scale (PSE) and Social Maladjustment Scale (SMS) were administered to 400 participants made up of 50 orthopaedic patients, 50 professional athletes, 50 keep-fit exercisers, 50 psychiatric out-patients and 200 'normal' participants. Those that manifested high negative self-image (30 participants), were subjected to 3 treatment groups of 1st treatment, 2nd treatment (placebo) and control groups, and were managed with Rational Emotive Behaviour Therapy, and Assertiveness Training techniques.

The hypotheses that guided the study were:

1) There would be positive and high correlations between test-retest and split-half scores of the participants in Negative Self-Image Inventory (NSII), indicating its reliability.
2) Participants' scores in NSII would correlate positively with their scores in Fear of Negative Evaluation (FNE), thus indicating the validity of NSII.
3) There would be significant and positive correlations between negative self-image (NSII) on the one hand, and Social Maladjustment Scale (SMS), Fear of Negative Evaluation (FNE) and Irritability.
4) The levels of negative self-image and psychological distress would be significantly higher in females than in males.
5) The low NSI group would record significantly higher scores in the protective correlates of negative self-image than the medium and high NSII groups.
6) The high NSI group would have significantly higher scores in risk correlates of negative self-image than the other six groups (Psychiatric, Orthopaedic, Professional Athletes, Keep-fit Exercisers, Low and Medium NSII groups).
7) Both the protective and risk correlates of negative self-image would significantly predict NSII as a criterion variable.
8) High NSII participants, treated with Rational Emotive Behaviour Therapy (REBT) and Assertiveness Training would have significantly lower measures of negative self-image than those that received placebo treatment or no treatment at all.

Results obtained from the study indicated the following:

1) Negative Self-Image inventory (NSII) developed in the study was found to be reliable with positive and significant split-half, test-retest and Cronbach alpha reliabilities.
2) Scores obtained in NSII correlated positively with scores of a comparable standardized instrument, Fear of Negative Evaluation (FNE), indicating the validity of the new test.
3) Risk correlates for negative self-image were: fear of negative evaluation, social maladjustment, low self esteem and irritability while protective correlates were perceived physical ability, positive personal adjustment as well as perceived self presentation and confidence.
4) There were no significant differences on the measure of negative self-image and associated variables between the male and female groups.
5) The low negative self-image (NSI) group obtained significantly higher scores on the protective correlates of negative self-image than the high and medium NSI groups.
6) The risk correlates of negative self-image were found to be significantly higher among the high NSI groups than the other six groups (Orthopaedic, keep-fit, professional athletes, psychiatric, low NSI and medium NSI).
7) Both protective and risk correlates of negative self-image significantly predicted NSII as a criterion variable.
8) Rational Emotive Behaviour Therapy (REBT) and Assertiveness Training were found to be efficacious in the management of negative self-image.

These results supported and confirmed hypotheses 1, 2, 3, 5, 6, 7 and 8, while hypothesis 4 was not supported. The refutal of hypothesis 4 indicated that manifestation of negative self-image is not gender specific as previously assumed.

The results obtained were discussed within the framework of existing literature on negative self-image and clinical intervention techniques.

Based on the findings, the need for public enlightenment on the manifestations of negative self-image, as well as the establishment of clinics for the screening and management of negative self-image were recommended.

CHAPTER ONE

INTRODUCTION

1.1 Background

The 'self' is a key construct in several schools of psychology, and it is broadly referred to as the cognitive representation of one's identity. The centrality of the self in psychology is a well-acknowledged concept and its' usage differ among theorists and several fields of study. This is usually obvious when researchers continuously grapple with the distinctions among self variables such as the self-concept, self-esteem, self-worth, self-efficacy, self-image, self-actualization, self-disclosure, self monitoring, self-talk and self-control (Bandura, 1991; Rosenburg, 1965, Grogan, 1999). Suffice it to note that, though the self-variables could be analyzed individually, each tend to exert significant influence on the other. This situation could be likened to the tendency to deliberately emphasize or highlight one area of interest or mini self-concept and de-emphasize the other. Self-image thus highlights the physical aspect of self-concept, without underscoring the influence of other self-variables.

The motivation for this study arose from an informal conversation with a young man of around 35 years, whom was observed to be excessively concerned with his physical appearance. The man, referred to as Mr X was stout and muscular-looking and could be observed every morning lifting iron weights, ostensibly to increase his muscular bulk. Out of curiosity, he was asked why he took to body-building and he replied that he took it up as a hobby because he needed to look strong, muscular and attractive, especially to the opposite sex. He claimed that he had had negative experiences in the past – ever since childhood, when he was labeled as *"short engine"*, a *"match box"* or *"full-stop"*, or

whatever such cruel term was the current to describe the 'short in physical build'. He brought out some of his photos where he appeared in only underwear displaying different muscular postures. He also revealed that he used anabolic steroids to aid his body building. He was however despondent that even after the marked increase in his physical build, the women he approached still appeared to have been turned off by his new build, which he thought was the key to looking and feeling better. According to him, once again, as before, he was this time around labeled as *'a Chimpanzee'*. He revealed that he was sad, disheartened and low in self-confidence.

The question is why is Mr X so concerned about his physical appearance and attractiveness to the opposite sex, whereas, some others who looked physically less attractive than him appeared less bothered? Could such feelings and conviction be the product of faulty cognition and self-talk which continually reinforce experiences? Everyone has heard stories about people suffering from anorexia nervosa - people who have become so convinced that they are overweight that they starve themselves into emaciation, so it could be with Mr X who appeared preoccupied with his physical features or characteristics, and continued to *feel* ugly and defective, lacking in self-confidence.

The illustration above portrayed that people could be concerned about their physical appearance than they would readily acknowledge. Observations include spending hours in front of the mirror, being self-conscious while walking on the street, feeling fat, ugly or defective, worrying about the receding hair line or slightly threatening pot belly, over-exercising or using anabolic steroids to achieve a more muscular or trim body or chemically altering the colour of their skin (through toning/bleaching of the skin).

Although beauty ideals have been modeled throughout history, the impact of today's visual media is felt by most. This is because television and magazines have an especially negative influence on the viewers. Oftentimes models in these media are seen as realistic representation of actual people, rather than carefully manipulated artificially developed images. Such observations from the mass media and other socializing agents are sometimes taken personally and incorporated into personal belief system. These can influence how people see themselves and also how they think others see them, with those not in conformity, vulnerable to negative feedback from significant others. Such developmental experiences, especially in early childhood could be continually reinforced by negative self-talk, which influences the psychological well-being as well as the presentation of self to others. Thus, individuals are likely to feel and act positively when they feel attractive.

The idea that the self-image is a pivotal aspect of psychology emerged in the 1930s, but the question about how it creates personality has rarely been answered. Maxwell Maltz, a plastic surgeon attempted an answer in the 'science of cybernetics' (Maltz, 1960). The word "cybernetics' was coined in 1948 by Dr Nobert Weiner, a mathematician and computer scientist. It comes from a Greek word meaning a "ship's steerman" and refers to the operation of an automatic guidance system. Maltz asserted that the human brain and nervous system function as a servo-mechanism, a goal-seeking device that has the capability of steering itself into positive and more productive goals. This is why he called his central idea 'Psycho-Cybernetics' meaning the science of cybernetics as applied to the human mind (Maltz, 1960). The power of this idea lies in the notion that people are capable of taking control of the self-image, (mental picture), and programming an automatic system of success.

Maltz, (1960) however became interested in the self-image psychology because of his confusing observation of patients who had undergone plastic surgery. He observed that some patients, who did minor facial changes, changed their personality and life dramatically, while others with greater facial changes did not seem to change. They often retained their old self-image and continued to 'see' themselves as 'ugly' and 'deformed', even though they appeared beautiful by society's standards. A boy with large ears, for example, had been told he looked like a 'taxicab with both doors wide open', and had been ridiculed all his life. He had become withdrawn and shy. After surgery, he became much more outgoing. Yet, a lady referred to as the 'Shy Duches', who was given a truly beautiful face in surgery, had no noticeable improvement in her personality. She continued to behave as she always had – shy, retiring and lacking in confidence. Maltz was inspired to move from treating "outer scars" to "inner scars" after observing that so many patients' unhappiness and insecurity were not cured after surgery. Maltz first wrote of this discovery in his book titled "New Faces, New Futures." In this book, Maltz suggested that many people 'see' themselves inaccurately, their perceptions distorted by unchallenged and often erroneous beliefs imbedded in the subconscious mind (Maltz & Kennedy, 2002; Psycho-Cybernetics Foundation, 2009). This led Maltz to conclude that changing the physical image was not the real key to changes in personality and behaviour. There was "something else" and that "something else" is the self-image (the mental image or picture). He therefore proposed that personality could be improved by helping an individual to mentally "see" himself or herself, as a beautiful person after surgery, by altering the ingrained hidden pattern of thoughts causing the dissatisfaction (Maltz, 1960; Maltz and Kennedy, 2002).

The formation of a self-image is challenging for an individual. This is because, society, the mass media, friends and significant others issue certain social norms that are often ambiguous. It is through evaluation of such social norms that people develop expectations and self-talk which continuously reinforce the self-image. The consequences could be severe for the individual who may learn self-hatred, and a poor mental image of the self which may be resistant to change.

A problem arising from these observations is that they are speculations. This study therefore seeks to explore this understudied area, by providing empirical data into negative self-image which is poorly understudied, especially in Nigeria. Worthy of note is that, anxieties associated with negative self-image manifestations could be some-worth embarrassing, especially in Africa, and among the male gender. They are also likely to be ill-equipped with relevant skills to handle such self-defeating difficulties. Specifically, the study undertakes the assessment and management of negative self-image among selected categories of Nigerians namely: orthopaedic patients, keep-fit exercisers, professional athletes, psychiatric out-patients and 'normal group' that is, those not categorized under the aforementioned groups. Brief conceptualization of self-image is thus presented below.

1.2: Self-Image: Clarification of Concept

Maltz (1960; Maltz and Kennedy, 2002) described the self-image as people's "mental pictures" or "mental blueprint" of the 'sort' of persons they are, which interferes with success and emotional wellbeing. Messina and Messina (2004) conceptualized self-image as: how people regard themselves; the mental picture of how they appear to others; how people picture themselves physically and how they believe others see them

physically. According to Grogan (1999), self-image is a collection of sensory images, beliefs, thoughts and attached feelings people have about self. This includes both the ideal self-image and the perceived self-image. Ideal self-image includes the complete set of goals and expectations for what people want to be like while the perceived self-image is based on observations of what they are really like. Furthermore, Wikipedia (2006; 2009) conceptualized a person's self-image as the mental picture, generally of a kind that is quite resistant to change, that depicts not only details that are potentially available to objective investigations by others (height, weight, hair, colour, IQ, score etc.) but also items that have been learned by that person about himself on herself either from experience or by internalizing the judgment of others. The items include the answers to such question: Am I fat? Am I skinny? Am I likeable? Am I weak? Am I strong? Am I stupid? and so on.

A closer look at the self-image definitions showed that, though approached from different perspectives, the central idea remained the same. Self-image is made up of the *mental images or pictures or hidden thoughts and ideas unconsciously formed from developmental experiences that interfere with success and emotional well being.* These observations would therefore be very important in the conceptualization of a negative self-image.

1.3: Negative Self-Image: Clarification of Concept

It is usually easier for individuals to identify with disappointment and failure, and may externalize such difficulties. Maltz (1960; Maltz & Kennedy, 2002) called this phenomenon, "the destructive instinct" and these triggered self-defeating statements. As a result of such negative self-reinforcement, people could become anxious and this could

result in self-condemnation and self-hate; *thus a negative self-image,* with all the requisite reactions, feelings, abilities and behaviours. Thus negative self-image could be defined as *'thoughts, feelings and behaviours, formed from developmental experiences that intensify preoccupations with real or imagined defects in physical appearance. When negative, it could result in emotional and behavioural difficulties, as well as poor social skills.*

Negative: is characterized by a display of negation, denial or resistance; having no positive features; a negative outlook on life; a colourless negative personality; a negative evaluation. The phrase "positive" is also characterized by a display of affirmation or acceptance; a positive attitude; a confident review of self.

"Mental picture or image" or "hidden thoughts" indicate that people are not just a body, but consist of mind as well and are capable of complex mental activities. Thus, they can only act accordingly like the type of person they cognitively construe.

Negative feedback from developmental experiences: This include negative feedback from spouse, teachers, peers, parents, children, wives, husbands and relatives as well as observations from the mass media and other socializing agents that are taken personally and incorporated into personal belief system.

Preoccupation with real or imagined defects in physical appearance: This is an essential feature of Body Dysmorphic Disorder (BDD), a disorder of imagined ugliness (APA 1994). Unlike normal concern about physical appearance, the preoccupation with appearance in BDD is excessively time consuming and causes significant distress or impairment in social situations.

Poor psychological well-being and social skills: This is characterized by depression, anxiety and poor self-esteem, poor social skills and fear of negative evaluation. This also include, feeling of jealousy harboured towards others perceived to be more successful, prettier, luckier, smarter, and more talented, and generally better off.

Below are contributory factors that could provide more insight into negative self-image

1.4: Negative Self-Image: Contributory Factors

1.4.1: Physical Factors

Concern with physical appearance is not just an aberration of modern Western culture; every period of history has had its own standards of what is and what is not beautiful. In the 19th century, being beautiful meant wearing a corset – causing breathing and digestive problems. Today, people try to diet and exercise themselves into fashionable shape – often with severe consequences.

The debate over whether a person's personality was more influenced by his/her genetics or environment has raged for years. Estimates in the nature – nurture controversy place the weight of each at around 50% (McMartin, 1995). One possible flaw in this estimate, however, lies in the question of how people's nature influences the environment? This has been largely left unanswered. For this question to be properly answered there is need to determine what natural factors could possibly have a strong influence on environment. Once this cause and effect relationship is established, it should be more convenient to examine what causes people's self-image to develop the way it does.

Under the stated premise, it is necessary to examine what characteristics people possess that could possibly have an effect on their environment. The most promising source of understanding how people's natural or existing traits can affect their social and emotional responses lies in the examination of the traits people are born with. Much of the same way people's personality affects how others treat them, so too does appearance. In some sense, certain elements of appearance (such as hygiene and selection of clothes) are also functions of personality, but for the most part, physical appearance, as something one inherits genetically, exerts greater influence on behaviour and psychological wellbeing. This is because people form opinion from what they see in the person physically, and respond to the person, accordingly. Because of this, it can be said that physical appearance affects the personality; that in turn affects the environment (McMartin, 1995).

The tendency to link physical attractiveness with positive personal qualities has been documented since the 1970s, when Dion and his colleagues formulated the phase 'what is beautiful is good' (Dion, Berscheild & Welster, 1972). They suggested that people tend to assign more favourable personality traits and life outcomes to those that they perceived as attractive. In an updated review of evidence in this area, Eagley, Ashmore, Mushkind and Longo (1991) suggest that the effects of the physical attractiveness stereotype are strongest for perceptions of social competence. Research has shown that in many situations, attractive people are actually more socially competent than those who are less attractive (Eagly, et al., 1991). This can be attributed to the fact that they are reacting to others' treatment, i.e., the self-fulfilling prophecy. Studies show that attractive children are more popular; both with classmates and teachers; and they also have better chances of getting jobs (Eagly et al., 1991). In court, attractive people are found less guilty and receive less severe sentences if found guilty. Eagly et al., (1991), further observed that,

very attractive people may be looking in the mirror, not out of vanity but out of insecurity, because they seem to be under greater pressure to maintain their appearance.

One of the most interesting findings is that children respond more positively to attractive faces. A baby's preference for an attractive face is established within the first three to six months of life, as demonstrated in a study by Langlois, Ritter, Roggman and Vaughn (1991). The infants looked longer at attractive than unattractive faces. At about one year, they took a more active approach in that they showed more positive response to attractive than to unattractive people. This built-in human predisposition to attractiveness is thus an interesting insight with important ramification for the way people react to one another.

Essentially, a two-step, cause-and-effect relationship should hypothetically describe the interaction between appearance and environment, and in turn social interaction. Patzer (1985), observed that at an early stage, before age ten, children have begun to recognize how others react to them. Naturally, individuals react with certain biases to people who look one way or another. Good-looking children are treated as social superiors, because in society, stereotypes dictate that popular people are good looking. Conversely, children who are deemed to be not as attractive are often treated as inferior to the other children. Patzer (1985), in its study found that "if teachers expect different behaviours from students of different physical attractiveness, the students develop accordingly to conform to these expectations. The result was very favourable to those students of higher physical attractiveness and very unfavorable for those lower in physical attractiveness. In both possible cases, the children began to confirm their self opinions to the opinions of those who interact with them and eventually would even change the ways they dress and take care of themselves to conform to others' preconceived notion of them. Once self-image

finally conforms to others' notion as well, the cycle repeats indefinitely, with outward appearance conforming to opinions. This situation demonstrates a case in which environment influence people, but in which environment is heavily influenced by nature (physical appearance). Attractive people thus have distinct advantages in contemporary societies. However, such irrational and deep-seated belief that physically attractive people possess desirable characteristics such as intelligence, competence, social skill, confidence, even moral virtue of (the good fairy princess is always beautiful; the wicked step mother is always ugly), triggers a negative self-image on those perceived as different.

1.4.2: Emotional Factors

People are aware of the continual flow of information through their mind but majority do not take time to cue in consciously to what these thoughts are saying. The quality of a person's life is influenced by how daily problems are perceived; such problems that cannot possibly be presented eliminated or thought patterned controlled. However, it does not take a continual repetition of negative statements to cause a negative self-image, rather once people assimilate a couple of these statements in their head, they could use them over and over again, repeating them in the form of negative self-talk until they become a fact (Schulling, 2001). Interpersonal relationships as well as personal contentment are affected when such internal thought patterns are negative. Negative perception creates fear and apprehension, increases depressive feelings and loss of control, diminishes self-esteem and self-presentation, and impairs effective coping skills (Shumacher, 2003). Thus, an individual is more likely to be vulnerable to other competing psychological difficulties. Beck and Guery (1985) affirmed that when the

vulnerability mode is active, incoming information is processed in terms of weakness instead of strength and the person finds himself or herself more influenced by past events that emphasize failure, than by factors that may predict success. The feeling of vulnerability in the individual is maintained by excluding contradictory data, by means of predominant cognitive schemes: minimization of personal strengths and magnification of personal weakness; selective attention of weaknesses and dismissal of past achievements. Butter and Cash (1997) observed that people with negative self-image tend to exhibit concern over body weight and shape and globally, negative attitudes about their social skills and self-control. Steinhouse (1993) presented a profile of distorted mood, insecurity, feeling of inadequacy, poor adaptation skills, unrealistic high aspirations, social and personal withdrawal. Others include social maladjustment, largely due to fear of negative evaluation. According to Caballo, (1998), symptoms of negative self-image can reach an extreme, almost agoraphobic-like level, (fear of the outside world). Others could include reassurance seeking habits, body grooming (checking and cross-checking self in the mirror), distorted judgment of character, personality and skill (Shumacher 2003). In addition are general interpersonal difficulties due to a tendency to underscore personal uniqueness and special abilities, (Grogan, 1999) observed that men and women with a subjective negative impression of self develop defense mechanisms to cope with a low self-esteem and may request cosmetic surgery to "normalize" a perceived abnormal appearance. Davis (1999) pondered on why people could subject themselves to painful practices like cosmetic surgery, dieting, strenuous exercises and use of anabolic steroid to change physical appearance. To Grogan (1999), a good number of patients who seek facial plastic surgery appear to have a personality disorder, of which a person's self-image plays a key role in its development.

Schlenker and Leary (1982) pointed out that anxieties caused by personal evaluation in social situation occurs when a person has the goal of creating a particular impression on others, but doubt that his or her own ability will succeed in creating this impression, thus anticipates a negative reaction instead. According to this approach, people experience social anxiety when two necessary and sufficient conditions are met. First, the person must be motivated (or have objective) to make a particular impression on others. The second condition is that the individual does not believe that he or she could be successful in conveying the impression they wish to make and as such, does not expect to be regarded in the fashion they desired (Caballo, 1998). In general, these arguments demonstrate the pivotal role of information processing in the development of positive or negative self-image, depending on how such cues are interpreted.

1.4.3: Socio-Cultural Factors

Festinger (1954) theorized that human beings have an innate tendency to derive information regarding the self through the process of social comparison. Research posit that comparison with others who are superior to oneself on the attribute of interest often are associated with increase in emotional distress and decrease in self-esteem and self-image (Major, Testa & Bylsma, 1991). Furthermore, people rate themselves in relation to others, with points awarded for similarities and points forfeited for differences. This assessment is based on standards set by the popular culture. The formation of the self-image is thus a challenging project for an individual, especially when families, peers or the society issues certain social norms that are often ambiguous or inaccurate. It is however through such developmental, social and emotional evaluations of self-image that people develop labels for themselves develop scripts as to how they should act to fit the

image and develop expectations and self-talk which continuously reinforce the self-image. This can be severe for the society, as the European folklore saying instructs "call a person a thief and he or she would steal", the consequences can also be severe for the individual who may learn self-hatred, thus a negative self-image.

The value placed on physical appearance and attractiveness in contemporary age, for example outweighs consideration of character, personality and modest social contribution. Because people have a strong need to belong, it is not surprising that they would strive towards such societal ideal, while a clash of the self and a strong sense of negative self-image may emerge when they try to make meaning into their real selves, under the role they are made to play. Researchers therefore believe that media images have powerful effects on their readers and viewers. These images serve to foster and maintain a distorted self-perception. Most social commentators agree that the media reflects current social norms as well as the ideal body shape and size (Grogan 1999). Psychologists have suggested that the media can affect men and women's self-esteem by becoming a reference point for several qualities and attributes obtainable in a given society. Silverstein, Peterson and Purdue (1986) who observed that models in female magazines had become significantly thinner since the 1930s, concluded that:

> *"Present day women who look at the major mass media are exposed to a standard of bodily attractiveness that is slimmer than that presented for men, and that is less curvaceous than that presented for women since the 1930s (Silverstein et al 1986, p.531).*

Men are also becoming more visible in the popular media. Baker (1994) noted that men's self-consciousness about their appearance is probably greater now than ever before. Mushkind, Rodin, Silberstein and Striegel-Moore (1986) observed that physical image concern is strong for men because media image of the young lean muscular male body represent changes in society's attitude towards the male body. Advertisements also celebrate the young, lean and muscular male body while men's fashion have undergone significant changes in style both to accommodate and to accentuate changes in men's physique, towards a more muscular and trim body (Mushkind et al., 1986). Also, one of the most powerful social forces in the promotion of body consciousness and thus, negative self-perception in industrialized society is the diet industry. Ogden (1992) argued that the diet industry is the perfect industry because it creates a problem (body dissatisfaction) then offers to solve it. By creating a market for itself, it ensures that men and women would continue to feel fat and unattractive, and would continue to support the diet industry. However, apart from the normal reduction of calorie intake, some dieters use more extreme strategies for weight loss. These include smoking, vomiting, use of laxative, exclusive use of very low calorie drinks, diet pills and fad diet such as all fruits diet. Grogan (1999) argued that, "all are particularly dangerous when used by normal-weight individuals who just feel fat. It is therefore not surprising that such media contents as well as other socializing agents have direct effect on viewers, affecting the audience in a fairly uniform way by injecting doses of communication which has a standard effect on overall self-image".

Observations presented above are some contributory factors of negative self-image. Body Dismorphic Disorder: a behavioural and clinical indicator of negative self-image provides further insight.

1.5: Body Dysmorphic Disorder: A Behavioural and Clinical Indicator of Negative Self-Image

The Diagnostic and Statistical Manual of Mental Disorders defined Body Dysmorphic Disorder (BDD) as a preoccupation with an imagined or minor defect in appearance which causes clinically significant distress or impairment in social, occupational, or other important areas of functioning (APA, 1994; 2000). The disorder generally is diagnosed in those who are extremely critical of their physique or self-image even though there may be no noticeable disfigurement or defect, or a minor defect which is not recognized by most people (APA, 2000). Some people wish that they could change or improve *some* aspect of their physical appearance; but people suffering from BDD, generally of normal or even highly attractive appearance, believe that they are so unspeakably hideous that they are unable to interact with others or function normally for fear of ridicule and humiliation about their appearance. They tend to be very secretive and reluctant to seek help because they fear that others would think them vain or because they feel too embarrassed. It has also been suggested that fewer men seek help for the disorder than women (Philips, 1996).

Ironically, BDD is often misunderstood as vanity-driven obsession, whereas it is quite the opposite, because people with BDD believe themselves to be irrevocably ugly or defective. BDD combines obsessive and compulsive aspects, linking it, among psychologists, to the Obsessive–Compulsive spectrum disorders. People with BDD may compulsively look at themselves in the mirror or avoid mirrors, typically think about their appearance for at least one hour a day (and usually more), and in severe cases may drop all social contact and responsibilities as they become a recluse (Wikipedia, 2009).

Chronically low self-esteem is characteristic of those with BDD, because the assessment of one's value is so closely linked with the perception of the appearance. BDD is diagnosed equally in men and women, and causes chronic social anxiety for its sufferers (Philips, 1996).

Phillips, Menard, Fay and Weisberg (2006) noted that suicidal ideation is also found in around 80% of people with Body Dysmorphic Disroder (BDD). There has also been a suggested link between undiagnosed BDD and a higher than average suicide rate among people who have undergone cosmetic surgery (New Scientist, 2006).

According to the DSM IV, to be diagnosed with BDD, a person must fulfill the following criteria:

- "Preoccupation with an imagined defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive."
- "The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning."
- "The preoccupation is not better accounted for by another mental disorder (e.g., dissatisfaction with body shape and size in Anorexia Nervosa) (APA, 1994)

In most cases, BDD is under-diagnosed. In a study of 17 patients with BDD, BDD was noted in only five patient charts, and none of the patients received an official diagnosis of BDD despite the fact that it was present (Rosen, 1995). BDD is often under-diagnosed because the disorder was only recently included in DSM IV, therefore clinician knowledge of the disorder, particularly among general practitioners, is not widespread (Philips, 1996). Also, BDD is often associated with shame and secrecy, therefore patients

often fail to reveal their appearance concerns for fear of appearing vain or superficial (Philips, 1996). BDD is also often misdiagnosed because its symptoms can mimic that of another psychiatric disorder, such as major depressive disorder or social phobia (Philips, 1996), and the root of the individual's problems remain unresolved. Many individuals with BDD also possess a poor level of insight and regard their problem as one of physical nature rather than psychiatric, therefore individuals may seek cosmetic treatment rather than mental health treatment.

There are many common symptoms and behaviours associated with BDD. Often these symptoms and behaviours are determined by the nature of the BDD sufferer's perceived defect, for example, the use of cosmetics is most common in those with a perceived skin defect, and therefore many BDD sufferers would only display a few common symptoms and behaviors.

1.5.1: Symptoms of Body Dysmorphic Disorder (BDD)

Common symptoms of BDD include:

- Obsessive thoughts about perceived appearance defect.
- Obsessive and compulsive behaviors related to perceived appearance defect
- Major depressive disorder symptoms.
- Delusional thoughts and beliefs related to perceived appearance defect.
- Social and family withdrawal, social phobia, loneliness and self-imposed social isolation.
- Suicidal ideation.
- Anxiety; possible panic attacks.

- Chronic low self-esteem.
- Feeling self-conscious in social environments; thinking that others notice and mock their perceived defect.
- Strong feelings of shame.
- Avoidant personality: avoiding leaving the home, or only leaving the home at certain times, for example, at night.
- Dependant personality: dependence on others, such as a partner, friend or parents.
- Inability to work or an inability to focus at work due to preoccupation with appearance.
- Decreased academic performance (problems maintaining grades, problems with school/college attendance).
- Problems initiating and maintaining relationships (both intimate relationships and friendships).
- Alcohol and/or drug abuse (often an attempt to self-medicate).
- Repetitive behaviour such as constantly applying make up and often applying it quite heavily.
- Seeing slightly varying image of self upon each instance of observation in mirror/reflective surface (Philips, 2005)

1.5.2: Compulsive Behaviours

Common compulsive behaviours associated with BDD include:

- Compulsive mirror checking, glancing in reflective doors, windows and other reflective surfaces.

- Alternatively, an inability to look at one's own reflection or photographs of oneself; often the removal of mirrors from the home.
- Attempting to camouflage imagined defect: for example, using cosmetic camouflage, wearing baggy clothing, maintaining specific body posture or wearing hats.
- Excessive grooming behaviours: skin-picking, combing hair, plucking eyebrows, shaving, etc.
- Compulsive skin-touching, especially to measure or feel the perceived defect.
- Becoming hostile toward people for no known reason, especially those of the opposite sex
- Reassurance-seeking from loved ones.
- Excessive dieting and exercise.
- Self harm
- Comparing appearance/body-parts with that of others, or obsessive viewing of favorite celebrities or models whom the person suffering from BDD wishes to resemble.
- Use of distraction techniques: an attempt to divert attention away from the person's perceived defect, e.g. wearing extravagant clothing or excessive jewelery.
- Compulsive information seeking: reading books, newspaper articles and websites which relates to the person's perceived defect, e.g. hair loss or dieting and exercise.
- Obsession with plastic surgery or dermatology procedures, with little satisfactory results for the patient.

- In extreme cases, patients have attempted to perform plastic surgery on themselves, including liposuction and various implants with disastrous results. Patients have even tried to remove undesired features with a knife or other such tool when the center of the concern is on a point, such as a mole or other such feature in the skin.
- Excessive enema use (Philips, 2005)

1.5.3: Development of Body Dysmorphic Disorder (BDD)

BDD usually develops in adolescence, a time when people are generally most sensitive about the appearance. However, many patients suffer for years before seeking help. An absolute cause of body dysmorphic disorder is unknown. However, research shows that a number of factors could be involved and that they could occur in combination. Some of the theories regarding the cause of BDD are summarized below.

1.5.3.1: Biological/Genetic

- **Chemical imbalance in the brain:** An insufficient level of serotonin, one of the brain's neurotransmitters involved in mood and pain, may contribute to body dysmorphic disorder. Although such an imbalance in the brain is unexplained, it may be hereditary. Serotonin is thought to have a role in regulating anxiety, though it is also thought to be involved in such processes as sleep and memory function. This neurotransmitter travels from one nerve cell to the next via synapses. In order to send chemical messages, serotonin must bind to the receptor sites located on the neighboring nerve cell. It is hypothesized that BDD sufferers may have blocked or damaged receptor sites that prevent serotonin from

functioning to its full potential (Philips, 1996). This theory is supported by the fact that many BDD patients respond positively to selective serotonin reuptake inhibitors (SSRIs) – a class of antidepressant medications that allow for more serotonin to be readily available to other nerve cells. There are cases, however, of patient's BDD symptoms worsening from SSRI use. Imbalance of other neurotransmitters, such as Dopamine and Gamma-aminobutyric acid, has also been proposed as contributory factors in the development of BBD (Philips, 1996).

- **Genetic predisposition:** It has been suggested that certain genes may make an individual more predisposed to developing BDD. This theory is supported by the fact that approximately 20% of people with BDD have at least one first-degree relative, such as a parent, child or sibling, who also has the disorder (Philips, 1996). It is not clear, however, whether this is genetic or due to environmental factors (i.e. learned traits rather than inherited genes). Twin studies suggested that the majority, if not all, psychiatric disorders are influenced, at least to some extent, by genetics and neurobiology, although no such studies have been conducted specifically for BDD (Philips, 1996).

- **Brain regions:** A further biological-based hypothesis for the development of BDD is possible abnormalities in certain brain regions. Magnetic resonance imaging (MRI)-based studies found that individuals with BDD may have abnormalities in brain regions, similar to those found in Obsessive Compulsive Disorder (OCD) (Philips, 1996).

- **Visual processing:** While some believe that BDD is caused by an individual's distorted *perception* of his or her actual appearance, others have hypothesized that

people with BDD actually have a problem processing visual information. This theory is supported by the fact that individuals who are treated with the selective serotonin reuptake inhibitors (SSRI's) often report that their defect has gone—that they no longer see it. However, this may be due to a change in the individual's *perception*, rather than a change in the visual processing itself (Philips, 1996).

- **Obsessive–Compulsive Disorder (OCD).** BDD often occurs with OCD, where the patient uncontrollably practices ritual behaviors that may literally take over his or her life. A history of, or genetic predisposition to, OCD or another obsessive–compulsive spectrum disorder may make people more susceptible to BDD.

- **Generalized Anxiety Disorder (GAD).** Body dysmorphic disorder may co-exist with generalized anxiety disorder. This condition involves excessive worry that disrupts the patient's daily life, often causing exaggerated or unrealistic anxiety about life circumstances, such as a perceived flaw or defect in appearance, such as in BDD.

1.5.3.2: Psychological

- **Teasing or criticism:** Teasing or criticism regarding appearance could play a contributory role in the onset of BDD. While it is unlikely that teasing *causes* BDD, since majority of individuals are teased at some point in their life, it may act as a trigger in individuals who are genetically or environmentally predisposed; likewise, extreme levels of childhood abuse, bullying and even psychological torture, are often rationalized and dismissed as "teasing," sometimes leading to

traumatic stress in vulnerable persons. According to Phillips, (1996), about 60% of people with BDD reported frequent or chronic childhood teasing (Philips, 1996).

- **Parenting style:** Similarly to teasing, parenting style may contribute to BBD onset. For example, parents of individuals who place excessive emphasis on aesthetic appearance (i.e. that aesthetic appearance is the most important thing in life) or no emphasis at all may act as a trigger in those genetically predisposed, posited (Philips, 1996).

- **Other life experiences:** Many other life experiences may also act as triggers to BDD onset, for example, neglect, physical and/or sexual trauma, insecurity and rejection (Philips, 1996).

1.5.3.3: Environmental

- **Media:** It has been theorised that media pressures may contribute to BBD onset, for example glamour models and the implied necessity of aesthetic beauty. BDD, however, occurs in all parts of the world, including isolated areas where access to media mediums is limited or non-existent. Media pressures are therefore an unlikely *cause* of BDD, however they could act as a trigger in those already genetically predisposed or could worsen existing BDD symptoms (Philips, 1996)

1.5.3.4: Personality and BDD

Certain personality traits may make individuals more susceptible to developing BDD. Personality traits which have been proposed as contributory factors include:

- Perfectionism
- Introversion / shyness
- Neuroticism
- Narcissism
- Sensitivity to rejection or criticism
- Unassertiveness
- Avoidant personality
- Schizoid personality (Philips, 1996).

Phillips (1996) further indicated that since personality traits among people with BDD vary greatly, it was unlikely that these were the direct *cause* of BDD. However, like psychological and environmental factors, they might act as triggers in individuals who already had a genetic predisposition to developing the disorder.

1.5.4: Effects of Body Dysmorphic Disorder (BDD)

BDD could range from slightly to severely debilitating. It could make normal employment or family life impossible. Those who are in regular employment or who have family responsibilities could almost find life more productive and satisfying if they do not have the symptoms. The partners and family of sufferers of BDD could also become involved and suffer greatly, sometimes losing their loved one to suicide.

Studies have shown a positive correlation between BDD symptoms and poor quality of life. Quality of life for individuals with BDD have also been shown to be poorer than those found in major depressive disorder, dysthymia, obsessive–compulsive disorder,

social phobia, panic disorder, premenstrual dysphoric disorder and Post traumatic stress disorder (Philips, 1996).

Because BDD onset typically occurs in adolescence, an individual's academic performance could be significantly affected. Depending on the severity of symptoms, an individual could experience great difficulty maintaining grades and attendance or, in severe cases, an individual could drop out of school and therefore not reach their peak in academic level. The vast majority of people with BBD (90%) indicated that their disorder impacted on their academic/occupational functioning (Philips, 1996), while 99% indicated that their disorder impact on their social functioning. Despite a strong desire for relationships with other people, many BDD sufferers would choose to be lonely rather than risk being rejected or humiliated about their appearance by people. Many people with BDD also have coexisting social phobia and/or avoidant personality disorder, making the sufferer's ability to establish relationships even more difficult (Grogan, 1999; Phillips, 1996).

Sufferers of BDD could often find themselves getting almost 'stuck' in moping around. That is to say that sufferer with such a type of depression could in some cases appear to take a long time to get everything done. However, this is not in reality the case, as it is simply that the BDD sufferers would often just sit or lie down for prolonged periods of time, without being able to motivate themselves until it becomes completely necessary to get back up. This could often cause 'little to get done' by sufferers, and they could have little self motivation with anything, including relationships with other people. However, contrary to this, when the action is relevant to the person's image, it is more common for

the sufferer to exhibit a fanatic and extreme approach, applying attention fully to self-grooming and modification.

1.6: Population at Risk of Negative Self-Image: Population of Study

Cognitive and perceptual concerns with physical appearance that are developed to a dysfunctional extreme could best be observed among certain class of population. Specifically this study seeks to assess such concerns among: orthopaedic patients, professional athletes and regular keep-fit exercisers, and even among the 'normal' population. The study also seeks to ascertain the similarities, if any, in the evaluation of negative self-image among psychiatric out-patients and 'normal' individuals. Some views bothering on the aforementioned population are thus presented below.

1.6.1: Physical Deformity

The thought of losing an anatomical part, such obtained among orthopaedic patients, is devastating to many people. When it happens, amputation causes a threefold loss in terms of function and sensation. Being physically different has social implications and one of the handicapping aspects is the attitude of people who consider physically different individuals to be 'special', set apart from the so-called 'normal' people. This could impact on the self-image. The 'able bodied' frequently appear to be less comfortable when interacting with those with physical deformity, in turn, those with physical deformities may be exquisitely sensitive to the reaction of others and therefore, may become self conscious. The belief that different degrees and type of physical deformities could trigger a negative self-image was also observed by Grogan (1999). He noted that physically deformed individuals may feel frustrated with self, others and environment,

due to inability to adapt successfully to the day to day living. According to Newell (1991), physically deformed individuals are likely to receive less reinforcement from others, resulting in a decreased self-esteem, and a decrease is positive self-image. This is likely to lead to significant perceptual and subjective self-image changes; a decrease in self-image satisfaction and behavioural avoidance. Survivors also vary in their adjustment after recovery and surgery, since injury often leads to reduction in social involvement (Browne, Byrne, Brown, Pennocks, Streiner, Roberts, Eyles, Truscott & Dabbs, 1985); and vocational activity with 50% to 60% of individuals requiring a change is employment status. Decreased sexual satisfaction could also occur (Tudahil, Blades & Munster, 1987) as well as a general diminishing quality of life, dissatisfaction with appearance and social and occupational difficulties (Sheffield, Irons, Muncha, Malec, Ilstrup & Stonnington, 1988).

It is obvious that amputation of a limb or other parts of the body could result in loss of function and sensation and it also could require the revision of physical appearance. Fishman (1959) observed that such a person "must learn to live with the perception of his or her ability" rather then "with his or her disability". He went on the state that physically disabled patients tend to focus on their anxieties, on the altered anatomy and to give the disability more importance in their future than is realistic. Successful adjustment for them appears to be in the incorporation of the prosthesis into the self-image and to focus on the future and not on the part lost (Bradway, Malone & Racy, 1984). Goldberg (1984) observed that even when amputation does not interfere with one's ability to perform a job or take part in social and recreational activities, such physical state could have great impact on self-esteem. As a result, a person could focus his or her attention on the loss of normal physical appearance and attempt to conceal the disfigurement. Should an

individual have a limb amputated, the person could compare the appearance of his or her body and functional capabilities to others. Based on these comparisons, one could speculate that it might be difficult for the amputee to have a positive attitude towards his or her body. Breakley (1997) hypothesised that if a physically disabled individual has a poor perception of the disability, one might expect a higher degree of anxiety, depression, lower self-esteem, social difficulties, less satisfaction with life and a negative self-image.

1.6.2: Professional Athletes

Greek and Roman artists have shaped the view of the athletes' body through paintings on vessels and through sculptures. Many of these representations seem to be idealised rather than perceived as unrealistic moldings. Indeed, little is known about how athletes in antiquity viewed their bodies (Casper 1998). Since normal confident persons tend to be in harmony with their bodies and its shape and form, confident athletes, who feel good about themselves and their performance, are expected to pay little attention to their physical appearance. But is the claim that athletes have self-confidence accurate? Numerous studies have shown that professional athletes consistently rate their emotional balance as being superior to that of the general population (Casper, 1993). But McNair, Lorr & Droppleman (1971) asserted that the so-called iceberg profile, with its peak showing that attributes such as liveliness, cheerfulness and alertness raising athletes above the average non athlete, has become proverbial.

Using other measures, Morgan and Costill (1971), found that elite athletes are characterised by excellent emotional health. Among wrestlers, distance runners and rowers, the successfully competing athletes scored below unsuccessful athletes on negative feelings but scored similarly or high on vigor and extroversion as well as on

anger (Heusner, 1952). Most athletes excel in games requiring physical strength; athletes are expected to describe themselves as being energetic and vigorous. Since the literature describes athletes as emotionally well-balanced therefore their self-image ought to be high. However, in competitive sports where performance depends on or is judged not only by skill or endurance, but also by appearance, with more often discrepancies between the actual and ideal body, in these sports, the self-image might not match the actual body and the athlete might strive more often to achieve the body ideal and, if unsuccessful, could lead to anxiety and poor body-evaluation.

Professional sports men and women in sports where thinness confers a preference or aesthetic advantage such as (dancers and gymnasts) tend to be highly preoccupied with their weight. Thus, having an ideal athletic body is perceived as an important element of athletic success, leanness and muscularity are associated with success, and excess fat is connoted with poor performance (Davis, 1990; Johns 1996; Petrie, 1996; Makanju, 1996). In some sports, for example, gymnastics, it is emphasised that athletes maintain a petite, thin appearance, whereas others like wrestling require that athletes develop strong muscular bodies to enhance performance (Brennan, 1998).

Often the demands of the sports (i.e., eliciting high level performance and physical fitness/appearance) and those of the society (i.e., eliciting appropriate physical presentation) conflict, concerning the desired shape of the athletes, especially that of the female body (Heywood, 1998). Such female athletes may not personify what Pinnen (1997) described as the "feminine-looking female body" in sport where muscular lean and strong body is essential. Yet big muscles are not considered feminine in most culture, and such athletes are continually reminded that they have a body contrary to the cultural

ideal of feminity (Halbert, 1997). The conflict between a female body for sports and a socially acceptable female body may negatively impact on athletes' self-esteem, health and self-presentation (Krane, 1998). Davis & Dion (1990) also suggested that professional athlete activities may foster excessive body concern, thus negative self-image in susceptible individuals.

1.6.3: Keep-fit Exercisers

A worked-out body has become an important issue in contemporary society and the result has impact on how people feel about themselves. This provides a useful opening to explore issues such as negative self-image. The visual portrayal of muscular men as 'hunks' and slim women as beauty queens is having a significant influence on the psyche and self-image of many. Internalizing these images as norm is causing psychological and emotional damages, especially when an individual melds these supposed standards of beauty and desirability to a fragile self-image. There is some evidence that people are exercising more excessively in the 1990s and 2000s than in the 1970s and 1980s. Researchers have found that some people, typically young women, exercise more for appearance-related reasons than health related reasons (Tiggemann & Williamson, 2000; Strelan et al., 2003; Krane et al., 2001; Zmijewski and Howard, 2003; Furnham et al., 2002; Koff & Bauman, 1999; Russell & Cox, 2003). Berry and Howe (2004) found that most advertisement for exercise apparel, equipment and gym memberships is appearance-based. This is not surprising since society associates thinness with beauty, which is apparent by looking at models on television and in magazines. Some women believe they are supposed to look like those models, but that level of thinness is not healthily attainable (Tiggemann & Lynch, 2001). It is common and expected that women should

be unhappy with their bodies. This feeling has been termed a normative discontent (Tiggemann and Lynch, 2001). Research has shown that those who experience a normative discontent or poor self-image are more likely to take drastic measures to lose weight (Tiggemann and Lynch, 2001). Exercise addiction is just as serious as eating disorders. Normative discontent is a crucial variable for eating disorders and compulsive exercise. Compulsive exercise is not just running a few miles a day; there is a definite difference between leisure time physical activity and obligatory exercise. Obligatory exercise is defined as a, "dominance of exercise in daily life and withdrawal symptoms if exercise is not possible. Addicts may exercise despite injury, at the expense of interpersonal relationships, to the detriment of their work, or with other negative consequences" observed (Grogan, 1999).

As expected, actual levels of excessive exercising are highest in the under-40s, and significantly lower in the over-60s (Grogan, 1999). Activity most linked to improvement of physical appearance in men is weight training and body-building activities that would be expected to lead to development of muscles to bring the male body more in line with the mesomorphic ideals (Baker, 1994). This may mean that women's motivation for exercise differs from that of men. Furnham and Greaves (1994) found that women are more likely than men to cite exercising for weight control, altering body shape, attractiveness and health. In their interview with women keep-fit exercisers, the primary motivation was to improve muscle tone and lose weight rather than for health (e.g., to improve cardiovascular fitness), (Furnham et. al., 1994). Studies have shown that those who keep fit by exercising frequently tend to be more preoccupied with their weight than non-exercisers observed. Studies have also shown positive correlation between weight

and diet concerns on physical activity levels in groups that frequently engage in keep-fit exercise observed (Davis & Donne 1990), leading to the conclusion that such habit may cause self-image dissatisfaction. This argument is problematic since they have no way of knowing whether people who are frequent exercisers started off (before exercise) feeling satisfied and have become less satisfied or were dissatisfied before the exercise regime (which could have been the motivation for taking up exercises in the first place) (Davis et. al., 1990).

However, excessive keep-fit exercise could become an unhealthy obsession that is facilitated by a distorted self-image regardless of the initial reason behind the interest in fitness. Brownwell and Wadden, (1992) proposed that a high level of physical exercise may be a predisposing factor for "eating disorder" and anabolic steroid and drug use, in people who have predisposing factors. Mitchel (1989) observed that those who exercises compulsively are trying to develop a feeling of controlling their lives through controlling their bodies, and that the dissatisfaction is just as real as that of other non-exercisers, despite the fact that they have quite different ideals.

A group of exercisers, which has attracted particular attention, are men and women body-builders. Although, some scholars suggest that body-building is empowering for women in allowing them to adopt alternative body-shape ideals and to value a larger shape (Furnham, et. al., 1994), others have proposed that body-building may lead to decreased body satisfaction when the desire to lose fat and gain muscle become a compulsion (Grogan 1999). Mitchel (1989) however insisted that body-building is not empowering for women because they seem to be setting up an alternative (muscular) ideal instead of the slender image of mainstream culture, which is just as damaging to women. Also men

who equate being 'pumped', having a chiseled body or less than a certain percentage of body fat, with being sexually desirable, often report that they never achieve the desired state of bodily perfection (Grogan 1999). This creates a potent form of anxiety directly linked to a self-critical voice that erroneously ascribes body perfection with the power to guarantee that they would magically experience much improved self-esteem.

In spite of the foregoing observations, evidence that exercise is beneficial to mental and physical health currently overwhelms evidence of negative effects. Evidence in the literature indicates that exercise improves psychological and physical health and even protects against "eating disorders" by improving body satisfaction (Grogan, 1999). Researchers have argued that those who exercise experience positive changes in self-concept and more positive perception of their bodies than those who do not exercise. This may be because exercise contributes to a slimmer, more toned body. In addition to medical reason for keeping fit, other reasons include increasing energy, countering stress, remaining centered, increased confidence and sex appeal. A most parsimonious interpretation is that exercise has predominantly positive effects, and that men and women should be encouraged to take moderate exercise. However, those who have predisposing factors, such as doubts about self-control and self-image, may develop exaggerated body concerns as a result of frequent excessive exercise (Grogan, 1999).

1.6.4: Psychiatric Illness

Though, a negative self-image, perception could exist in the absence of psychiatric disturbance, it is often presumed that people with psychiatric disturbance have deficit in this regard. Psychiatric patients are those diagnosed with one form of mental disorder or another. DSM-IV (APA, 1994) conceptualised mental disorder as a clinically significant

behavioural or psychological syndrome or pattern that occurred in an individual and that is associated with present distress (e.g., painful syndrome) or disability (i.e., impairment in one or more important areas of functioning), or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom. In addition, this syndrome or pattern must not be merely an expectable and culturally sanctioned response to a particular event, for example, the death of a loved one. In an attempt to avoid becoming a vehicle for social regulation, the DSM-IV definition excludes voluntary behaviour, as well as beliefs and actions that are shared by religious, political and sexual minority groups. Indeed, mental disorder is defined in terms of an official diagnostic system – the Diagnostic and Statistical Manual of Mental Disorders, DSM-IV, with major types involving anxiety disorders, personality disorders, schizophrenia and other psychotic illness, mood disorder, somatoform disorder, dissociative disorder, sexual and gender identity disorders. Others include delirium, dementia and cognitive disorders and disorders often first diagnosed in infancy. Whatever its' origin, it must currently be considered a manifestation of a behavioural, psychological or biological dysfunction in the individual (APA, 2002).

Worthy of note is that most psychiatric disorders result in the disruption of a person's thinking, feeling, mood, ability and interpersonal relationships. This brings to the fore, the role of self-image perceptions in a broad spectrum of psychiatric conditions. Thus, depersonalisation characterised by a feeling of disconnection from one's sense of self; a classic manifestation of looking in the mirror and not connecting to the image, reflects a sense of unreality and self-estrangement seen in Schizophrenic clients. Also excessive negative self-image thoughts, the repetitive thoughts and compulsion as well as avoidance behaviour that characterise the body dysmorphic disorder have similar features

with other psychiatric illneses. Phillips (1996) observed that BDD patients are more prone to major depression and a lifetime risk for suicide. Moore (2005) observed that while many parents and physicians may dismiss teenagers' preoccupation with appearance as simply an adolescent phase, it is not uncommon for teenagers to drop out from school and withdraw from family and friends, interrupting their academic and social development, and in more severe cases, could be the cause of suicidal ideations.

1.6.5: 'Normal Group'

People classified as 'normal' are those not receiving one form of treatment as a result of a psychiatric disorder and does not present with physical deformity as a result of accident or trauma. Inclusive are also those not categorised as keep-fit exercisers or professional athletes.

Formation of a self-image can be a very challenging project for an individual, especially when society issues strongly negative evaluations that are mainly inaccurate. In a bid to provide answers to questions such as: who and what am I? Am I fat, skinny, weak or strong? Am I intelligent, stupid, sluggish, beautiful or ugly? People, may either experience difficulties or an easier understanding of the evaluation of their self-image. Below is an excerpt from Kemi (not her real name), a female respondent:

> *"I feel fat! I think I will be happier if I am slim or better still, look like a film star or a model. I sometimes diet to loose weight but still unable to. I love slim, tall, muscular and good-looking men but unfortunately, I end up attracting only the fat and unattractive ones. I think the way I look is the problem; my weight makes me look older and less attractive. I wish I*

can take up a good exercise regime to keep in shape. I tried jogging but gave up because it was quite strenuous"

Kemi and most people like her who do not conform to the slender ideal, are more likely than others to feel insecure throughout their life span. Cash (1990) argued that overweight people are treated differently from childhood. Children prefer not to play with their overweight peers. This prejudice continues into adulthood, when overweight people tend to be rated as less active, hardworking, successful, athletic and popular than slim people. Although fat people were seen as warmer and friendlier, confirming the traditional stereotype of the fat and jolly person, they were also viewed as less happy, more self-indulgent, less self-confident, less self-disciplined, lazier and less attractive than thin people (Cash 1990). Being overweight was seen as being caused by factors within the individual's control (through overeating, lack of exercise). Overweight people are therefore more likely be stigmatized, thus resulting in low self-esteem and self-image. Below is an excerpt drawn from another respondent, Kunle (not his real name), a normal 'regular' male that is far from being overweight.

"I think I am a kind, intelligent and religious person, and of average height and build. Unfortunately, I have a strong conviction that I don't have enough charisma, You understand what I mean?.... I mean the type of confidence needed for bold and good interpersonal relationship especially those that bother on dating and sexual relationships. I can't understand why some of my peers, who are obviously less intelligent seem to be a lot more popular, especially with the ladies".

The two descriptions are obviously contradictory. While Kemi feels fat and insecure, the slim and intelligent Kunle feels even more disturbed. What then is the problem? The problem appears to lie with the self-image; the distorted mental perception of the self as well as in the rigid thought processing. Schulling (2001) observed that the subconscious mind, which is responsible for most behaviour, cannot tell the difference between the truth and a lie, rather what it does is that it sets out to ensure that whatever it is told becomes a fact. To Locke (2001), one's self-image, (especially with sensitive people), is a fragile thing. It can be severely damaged by social inadequacy, loss of job, educational difficulties, and sexual inadequacy and so on. The fact is that, it does not take a continual repetition of negative statements from significant others from childhood to adulthood to cause a negative self-image, rather, once people memorise some of these statements in their heads, they could use then over and over again, repeating them unconsciously in form of negative self-talk until they become a fact. Hence the assumption that negative self-image reduces the quality of a person's life and predisposes people to faulty thinking habits and actions, is a social and psychological problem that needs to be tackled. People influence their environment by the characteristics they naturally possess, beginning at a very tender age. Perhaps, the most influential factor is physical characteristics. Perception of the physical self in a positive or negative way would indirectly determine psychological wellbeing and overall self-image.

1.7: Negative Self-Image: Implication for Assessment

Assessment is considered an important feature of clinical psychology training because a successful management is partly based on a proper diagnosis, which only a proper assessment could offer. Also, the selection of a scale or multiple measures for an

empirical study depends to a large degree on the characteristics of the participants. The use of any measure must be determined by its appropriateness for the diversity represented by the specific individual in terms of background, gender, age, and most importantly, ethnicity. In other words, such assessment instrument should be culture-fair and relevant. Several assessment techniques include clinical observations, self-monitoring, behavioural assessment, clinical interview (structured and unstructured), structured paper and pencil inventories. It is thus believed that a conscious and systematic use of appropriate assessment procedure should adequately tap into the symptoms and characteristics of negative self-image, especially among the population under study. Thus, Negative Self-Image Inventory (NSII) would be developed and standardized in this study, using Nigerian samples and it was hoped to aid the assessment of symptoms and manifestations of negative self-image.

1.8: Negative Self-Image: Implication for Management

The ultimate goal of an intervention research should lead to defining causal models and identify antecedent conditions associated with the increased likelihood of a disorder. Thus, intervention is designed to reduce and eliminate risk factors as well as strengthen the protective factors. Because there is considerable multiple causal pathways to symptoms of negative self-image, including both general and specific factors, intervention should be geared towards encompassing both sources. The need to develop skills that lead to a resilient sense of mastery in many settings and over an extended period of time is also very useful. This study therefore supports intervention models that accomplish a change in negative self-image, by providing opportunities to experience success in such valued areas and also decrease other co-morbid disorders.

The salient issues arising from the introductory chapter is that the centrality of the 'self' in psychology is a well-acknowledged concept and its' usage differ among theorists and several fields of study. Though the self-variables could be analyzed individually, each tends to exert significant influence on the other. This study therefore focused on negative self-image. Tracing the history of self-image psychology, it was observed that Dr Maxwell Maltz, a plastic surgeon became interested in the self-image because of his confusing observation of patients who had undergone plastic surgery. He observed that some patients, who did minor facial changes, changed their personality and life dramatically, while others with greater facial changes did not seem to change. They often retained their old self-image and continued to see themselves as 'ugly' and 'deformed', even though they appeared beautiful by society's standards. Dr Maltz proposed that personality could be improved by helping an individual to mentally "see" himself or herself, as a beautiful person after surgery, by altering the ingrained hidden pattern of thoughts causing the dissatisfaction (Maltz, 1960; 2002).

Examining contributory factors of negative self-image, the study traced the influence of physical, emotional and socio-cultural factors in the development and manifestation of negative self-image. Study also examined Body Dysmorphic Disorder (BDD) – a behavioural and clinical indicator of negative self-image. BDD was defined as the preoccupation with an imagined or minor defect in appearance which causes clinically significant distress or impairment in social, occupational, or other important areas of functioning (APA, 1994; 2000). It was observed that the disorder generally is diagnosed in those who are extremely critical of their physique or self-image even though there may be no noticeable disfigurement or defect, or a minor defect which is not recognized by most people (APA, 2000).

Stressing implication for assessment and management of negative self-image, this study supported intervention models that accomplish a change in negative self-image, by providing opportunities to experience success in valued areas and also decrease other co-morbid disorders.

1.10: Statement of Research Problem

Many are unaware that negative self-image concern can develop to a dysfunctional extreme level resulting in a psychopathological condition known as Body Dysmorphic Disorder (BDD) (APA, 1994). This is a disorder of imagined ugliness defined as, an intensification of normal concern with real or imagined defects in physical appearance (Rosen 1998; Caballo 1998; APA, 1994; 2000), with significant social and interpersonal impairment.

Fixation with the negative self-image is also erroneously assumed to be the burden of the developed world (Lock, 2001), but in a globalized age, such preoccupations could be observed from time to time in all parts of the world, including Nigeria, and also among the male gender who were previously thought to be immune from the problem. Such a pervading psychopathological problem therefore needs to be thoroughly investigated in order to ascertain its peculiar characteristics. The investigation would provide the information needed for initiating necessary psychological intervention that would relieve individuals with negative self-image of their problem, so that they could function optimally in the society.

To the best knowledge of the researcher, there has been little or no interest in investigating this phenomenon in Nigeria. Also in Nigeria, there is dearth of standardized psychological instrument for assessing negative self-image. Studies reviewed presented

an obvious dearth of assessment measure for negative self-image for Nigerian sample as most were developed and standardized using Caucasian participants. Thus the selection of a scale or multiple measures for an empirical study depends to a large degree on the characteristics of the participants. The use of any measure must be determined by its appropriateness for the diversity of specific individuals in terms of gender, background, age, and most importantly, ethnicity. For this reason, Negative Self-Image Inventory (NSII), was developed and standardized in this study.

Though management studies reviewed portrayed the efficacy of cognitive therapy, family therapy and Dr Maltz Psychocybernetic therapy in the management of negative self-image, it is important to look at the role of unassertiveness in the etiology and manifestation of negative self-image. This is necessary because of the uniqueness of the participants who are Nigerian males and females and whose feelings of negative self-evaluation are compounded by African cultural practices and socialization. Nigerian women unlike most Western women are socialized into a gender-biased environment where success is erroneously equated with physical attractiveness. Traditionally, they are expected to be submissive and less assertive with resulting contradictory emotions and feelings. As a result, they may get unassertive and bottle up emotions and feelings, even those relating to self-perceptions and self-worth. Assertiveness training may also help the male participants to positively express their bottled-up emotions in a more healthy way, especially self-image related emotions.

The above stated conditions have created a gap in knowledge concerning the nature and characteristics of negative self-image among Nigerian population, as well as intervention

procedures for ameliorating the problem. This study sets out to fill some of these gaps in knowledge.

1.11: Objectives of Study

The main aim of this study was to assess and manage perceptions and manifestations of negative self-image.

Specifically, the study has the following objectives:

1. To develop an assessment inventory to measure negative self-image and validate the inventory using Nigerian samples.
2. To identify risk and protective psychological correlates of negative self-image.
3. To assess the influence of gender on manifestations of negative self-image.
4. To assess the differences in manifestation of negative self-image among the following groups – professional athletes, keep-fit exercisers, orthopaedic patients, psychiatric out-patients and 'the normal group', i.e., those not categorized under the aforementioned groups.
5. To determine whether risk and protective correlates of negative self-image will predict negative self-image.
6. To evaluate the efficacy of Rational Emotive Behaviour Therapy (REBT) and Social Skill Training (Assertiveness Training), in the management of negative self-image

1.12: Research Questions

This study intends to provide answers to the following questions:

1. How reliable and valid is the Negative Self-Image Inventory (NSII) in measuring negative self-image?
2. What are the risk and protective psychological correlates of negative self-image?
3. Does gender significantly influence manifestations of negative self-image?
4. Are there differences in the manifestation of negative self-image among the following groups: orthopaedic patients, professional athletes, keep-fit exercisers, psychiatric out-patients, low, medium and high negative self-image groups?
5. Will protective and risk correlates of negative self-image predict negative self-image?
6. Will Rational Emotive Behaviour Therapy (REBT) and Social Skill Training (Assertiveness Training) be effective in the management of negative self-image?

1.13: Research Hypotheses

In order to answer the questions stated above, the following hypotheses were tested:

1. There will be positive and high correlation between test-retest and split-half scores of the participants in Negative Self-Image Inventory (NSII), indicating its reliability
2. Participants' score in NSII would correlate positively with their scores in Fear of Negative Evaluation (FNE), thus indicating the validity of NSII
3. There will be significant and positive correlation between negative self-image (NSII) on the one hand, and Social Maladjustment Scale (SMS), Fear of Negative Evaluation (FNE) and Irritability.

4. The levels of negative self-image and psychological distress will be significantly higher in females than in males.
5. The low NSI group will record significantly higher scores in the protective correlates of negative self-image than the medium and high NSII groups.
6. The high NSI group will have significantly higher scores in risk correlates of negative self-image than the other 6 groups (Psychiatric, Orthopaedic, Professional Athletes, Keep-fit Exercisers, Low and Medium NSII groups).
7. Both the protective and risk correlates of negative self-image will significantly predict NSII as a criterion variable
8. High NSII participants, treated with Rational Emotive Behaviour Therapy (REBT) and Assertiveness Training will have significantly lower measures of negative self-image than those that received placebo treatment or no treatment at all.

1.14: Significance of Study

The significance of this study lies in the fact that it would go a long way in filling the void in knowledge concerning the behavioural and emotional manifestations of negative self-image, which are poorly understood. The study posits that an in-depth understanding of the manifestations of negative self-image would enable individuals presenting the problem to be more equipped with information necessary for a flexible, happier and adaptive lifestyle. This is further useful to the different categories of people who have the problem of self-image but consistently deny it, especially the male gender.

Specifically, this study would produce an objective measure of negative self-image that professionals and researchers could utilize in screening those needing immediate treatment

and help. The study would also provide information on the psychological factors that maintain or sustain negative self-image. This would facilitate the designing and planning of a successful treatment programme for the condition. Furthermore, the effective and successful management of negative self-image with Rational Emotive and Behavioural Therapy (REBT) and Assertiveness Training would convince many that the condition is treatable. Finally, this study would definitely increase the scanty literature on negative self-image emanating from Nigeria.

1.15 : Operational Definition of Terms

The following terms were used in this study in the context described below:

1. **The 'self'** – A conscious and reflective personality of an individual.
2. **Image** – A mental picture or a reflection of a concrete form.
3. **Negative Self-Image** – Negative thoughts, feelings and behaviours, formed from developmental experiences that intensify preoccupations with real or imagined defects in physical appearance. These result in emotional and behavioural difficulties as well as poor social skills.
4. **Positive self-image** - Positive thoughts and behaviours formed from developmental experiences that trigger positive perception of real or imagined defects in physical appearance. These result in adaptive social and emotional abilities.
5. **Psychological Test** - A psychological test is one of the sources of data used within the process of assessment; usually more than one test is used.
6. **Psychological Assessment** - A process that involves the integration of information from multiple sources, such as psychological tests, and other information such as personal and description of current symptoms and problems by either self or others.

7. **Psychological Management:** An interaction between a professional and a client that leads to changes—from a less adaptive state to a more adaptive state—in the client's thoughts, feelings, and behaviours.
8. **Risk correlates of negative self-image:** Factors associated with increase in negative self-image manifestations, i.e., is positive correlations.
9. **Protective correlates of negative self-image**: Factors associated with decrease in negative self-image manifestation, i.e., is negative correlations.
10. **Normal Group**: Those not categorized in the following groups (Keep-fit exercisers, professional athletes, orthopaedic patients, psychiatric outpatients)

CHAPTER TWO

LITERATURE REVIEW

2.1: Theoretical Review

Manifestations of negative self-image may vary but the locus of social and interpersonal difficulties may appear theoretically and descriptively similar. The aim of this review is to synthesize theory, data and practice, with regards to negative self-image and also as it relates to its assessment and treatment. Some of the theories that are beneficial in the formulation of a theoretical perspective of negative self-image, as well as in the framework for this study are reviewed.

2.1.1: Allport's Personality Theory

According to Allport's theory of personality, most human behaviour is motivated by what he termed 'propriate functioning' (Boeree, 2006). Propriate comes from the word proprium, which is what Allport referred to as 'the self'. According to Allport personality theory, the self has seven functions, which arise at certain time of one's life viz:

- sense of body
- self identity
- self-esteem
- self-extension
- self-image
- rational coping and propriate striving (Boeree, 2006).

Sense of body developed in the first two years of life. Here, individuals are more aware of their body closeness and warmth and are also able to feel pain, injury, touch and movement.

Self-identity also developed in the first two years. Here individuals are perceived as individual entities, different from others.

Self-esteem developed between two and four years old. There is recognition of values and self-worth.

Self-extension developed between four and six. This is recognition of people, and events around, as central and warm and essential for existence.

Self-image developed between four and six. This is the "looking-glass self," 'the me as others see me'. This is the impression made on others, the "look," the social esteem or status, including sexual identity.

Rational coping is learned predominantly in the years from six years to twelve. The child begins to develop his or her abilities to deal with life's problems rationally and effectively.

Propriate striving does not usually begin till after twelve years old. This is the self as 'goals, ideal, plans, vocations, callings, a sense of direction, a sense of purpose'. The culmination of propriate striving, according to Allport, is the ability to state that the individual is the proprietor of their lives, that is, the owner and operator (Boeree, 2006).

The self-image which Allport referred to as 'the looking glass self' develops between age four to six years. This is an indication that children are innately aware of the way they

look and the way they feel others perceive them. This provides insight on the developmental experience that thwarts a positive self-image.

2.1.2: Freud Psychoanalytic Theory

Sigmund Freud developed a theory of personality and motivation, as well as a method of therapy. Both his theory and practice revolutionised people's perception of themselves as rational individuals who are always in complete control of their own actions (Agiobu-Kemmer 2005). Freud (1949) stressed the importance of a strong and confident inner-self in the development of a good sense of self. Freud psychosexual stage description, further observed that emotional development depends on appropriate stimulation of body areas referred to as erogenous zones. He asserted that anatomy is destiny and theorized that the better part of a person's psychological makeup was predicated by a primal fear of having his genital removed, as captured in his Oedipal Complex. Thus he stated that during the phallic stage, about age three, children focus their attention on their genitals while the differences between males and females become salient. During this stage, the primitive sexual urge of the boys become directed towards their mothers as part of their fantasies. The child then develops castration anxiety when he senses that his father would be angry if he knows of his desires while the girls develop penis envy when they discover that their penis (clitoris) is inferior to the ones possessed by the males (Freud 1940/69). Though Freud's theory continued to generate controversy even among psychoanalysts, it is still a major force in contemporary psychology (Agiobu-Kemmer, 2005), and specifically in the understanding of symptoms and manifestations of negative self-image.

2.1.3: Humanistic Perspective

According to Rogers (1961), humanistic psychologists theorized that people are essentially good and rational and are motivated from birth to actualize the self. Rogers (1961) asserted that individuals are innately driven to fully actualize their potentials, given the respect, love and acceptance necessary for growth. He described such tonic necessary for growth as unconditional positive regard and if experienced, people would grow towards enhancement of the unique self. Suffice it to note that, unfortunately, the growth process is often thwarted. Instead of receiving such unconditional positive regard, the child is more likely to experience conditioned positive regards. Instead of acceptance, the developing self is also more likely to experience conditions of worth; ways he or she must behave to obtain approval. Following the premise of Rogers' personality theory, such conditioned positive regard could trigger an onset of negative self-image to many who continually strive for acceptance and self-worth. Maslow (1968) saw the meaning of life in the unfolding of the self. Maslow observed that people in touch with the 'self' are spontaneous, natural, autonomous, and are more likely to express themselves creatively and positively, while those with rigid and unrealistic views about the 'self' are more likely to express themselves negatively. In Erikson's (1968) theory of development, the manifestation of a low sense of self could be a product of the adolescent's answer to the question "who am I? In this view, the conflict caused by such persistent observations could produce a confused and restless identity. Thus identity, according to Erikson, is usually "others directed" rather than "self directed".

3.1.4: Self-Perception Theory

Self-perception theory is an account of attitude change developed by psychologist Daryl Bem. It asserted that individuals develop attitudes from observations of their behavior and concluding what attitudes must have caused them ((Bem, 1967). Self perception theory is sometimes viewed as similar to Cognitive Dissonance theory (Festinger, 1954). Cognitive dissonance is thus an uncomfortable feeling caused by holding two contradictory ideas simultaneously. The "ideas" or "cognitions" in question may include attitudes and beliefs, and also the awareness of one's behavior. The theory of cognitive dissonance proposes that people have a motivational drive to reduce dissonance by changing their attitudes, beliefs, and behaviours, or by justifying or rationalizing their attitudes, beliefs, and behaviours (Festinger, 1954). However, self-perception theory differs from cognitive dissonance theory in that it does not hold that people experience a "negative drive state" called "dissonance" which they seek to relieve. Instead, people simply "infer" their attitudes from their own behavior in the same way that an outside observer might. Bem ran his own version of Festinger and Carlsmith's famous cognitive dissonance experiment. Subjects listened to a tape of a man enthusiastically describing a tedious peg-turning task. Some subjects were told that the man had been paid $20 for his testimonial and another group was told that he was paid $1. Those in the latter condition thought that the man must have enjoyed the task more than those in the $20 condition (Bem, 1967). Bem argued that the subjects did not judge the man's attitude in terms of cognitive dissonance phenomena, and that therefore any attitude change the man might have had in that situation was the result of the subject's own self-perception.

Bem (1972) made a looking glass model which comprised three components:

- 'How we think we appear to others'
- 'How we think they evaluate that appearance'
- 'The resulting shame or pride we feel'

In philosophy, 'Self-Knowledge' is commonly used to refer the knowledge of one's particular mental states, including one's beliefs, desires, and sensations. Often it is used to refer to knowledge about a persisting self - its ontological nature, identity conditions, or character traits. Self-perception, in short, is how we, as individuals come to understand ourselves (Bem, 1967).

2.1.5: Higgins Self-Discrepancy Model

Higgins (1987), self-discrepancy model posited that the self is constructed as containing many selves, an individuals' perception of his or her actual self and ideal self, would be two examples. Selves such as ideal self and ought self are called guides. There are also standpoints on the self, such as one's own view or one's perception of one's parent's view. If these different selves were pretty similar, that is, one saw oneself, as close to one's ideal and close to perceived parental expectations, one would be a happy person. However, if any of these selves were discrepant, it would arouse feelings particular to that kind of discrepancy. According to self-discrepancy theory, an actual-ideal discrepancy is associated with depressive emotions, whereas, an actual-ought discrepancy is associated with anxious emotions (Strauman & Higgins, 1987). Thompson (1992) affirmed that the result of self-discrepancy between the ideal self and perceived self, leads to dissatisfaction with self, thus the greater the discrepancy, the greater the dissatisfaction with the self-image. Silberstein et al. (1987) stressed that such discrepancies may lead to self-image concerns and general negative self-perception and

presentation in non-clinical populations. This is thus, so frequent and is often thought to be the normative experiences for most people.

2.1.6: Self Objectification Theory

Objectification theory is based on the principle that girls and women develop their primary view of their physical selves from observations of others. These observations can take place in the media or through personal experience (Bartky, 1990). Through a blend of expected and actual exposure, females are socialized to objectify their own physical characteristics from a third person perception, which is identified as self-objectification (Kaschack, 1992). Women and girls develop an expected physical appearance for themselves, based on observations of others; and are aware that others are likely to observe as well. Objectification theory is essential in feminist theory, as the sexual objectification and self objectification of women are believed to influence social gender roles and inequalities between the sexes (Goldenberg, Jami & Tomi-Ann (2004).

Self-objectification allows individuals to acclimate to a society where the objectification of female bodies is prevalent (Bartky, 1990). Self objectification can provide insight on situation which heightens the awareness of an individual's physical appearance (Fredrickson, Barbara & Kristen, 2005). Here, the presence of a third person observer is enhanced. Therefore, when individuals know others are looking at them, or will be looking at them, they are more likely to care about their physical appearance. Examples of enhanced presence of an observer include the presence of an audience, camera, or other known observer.

Primarily, objectification theory influences women and girls as a result of expected social and gender roles (Bartky, 1990). Research indicates that not all women are influenced equally, due to the anatomical, hormonal, and genetic differences of the female body; however, women's bodies are often objectified and evaluated more frequently (Fredrickson & Harrison, 2005). Females learn that their physical appearance is important to themselves and society, and as a result, females consider their physical appearance often, expecting that others will also.

Sexual objectification occurs when a person is identified by their sexual body parts or sexual function. In essence, an individual loses his or her identity, and is recognised solely by the physical characteristics of the body (Bartky, 1990). Lemencheck (1997), observed that the purpose of this recognition is to bring enjoyment to others, or to serve as a sexual object for society. Sexual objectification could also occur as a social construct among individuals, or as a result of exposure to the mass media.

Research also indicates that objectification theory is valuable to understanding how repeated visual images in the media are socialized and translated into mental health problems, including psychological consequences on the individual and societal level (Friedrickson, Barbara & Kristen, 1997). These include increased self consciousness, increased body anxiety, heightened mental health threats (depression, anorexia nervosa, bulimia, and sexual dysfunction), and increased body shame. Therefore, the theory has been used to explore an array of dependent variables including disordered eating, mental health, depression, motor performance, self-image, idealised body type, stereotype formation, sexual perception and sexual typing (Friedrickson, et al., 1997; 2005). Effects of objectification theory are identified on both the individual and societal levels

2.1.7: Adler Organ Inferiority Theory

The psychoanalytic view of Adler, as reviewed by Burger (2000) asserted that individuals begin life with a sense of inferiority and this perception marks the beginning of a long struggle to overcome feelings of inferiority. Adler called this struggle a "striving for superiority. A low self perception therefore emerges when this struggle is either not adequately overcome or it is disrupted by social and emotional factors. According to Adler (1956), everyone suffers from inferiority in one form or another.

According to Alfred Adler, who was the first one to coin the term inferiority complex, every child experiences the feelings of inferiority as the result of being surrounded by stronger and more capable adults. As the child grows he becomes derived by his original feelings of inferiority he experienced earlier and so he strives for power and recognition. If the child failed to meet certain life challenges as a result during his act of compensation then he develops an inferiority complex. According to Adler every child feels inferior but not every one develops an inferiority complex which only affects those who failed to compensate correctly.

Primary and secondary inferiority complex

When a person who used to feel inferior as a child because of his/her perceived weaknesses faces a challenge that he/she can meet, it could trigger secondary inferiority. Secondary inferiority feelings are feelings of inferiority that are based on the primary inferiority feelings the child experienced when he was young. It is as if the inferiority feelings were dormant until the secondary inferiority feelings happened and reminded the person of the original feelings.

Studies indicate the roles of rejection, discrimination, bullying and physical disabilities as can reason behind the primary inferiority which then leads to the secondary inferiority.

Adler studied organ inferiority which refers to the inferiority feelings the person having certain physical disability develops and which lead him later to conclude that all children experience inferiority feelings with no exception.

For example, Adler began his theoretical work considering *organ inferiority*, that is, the assumption that individuals have weaker, as well as stronger, parts of the anatomy or physiology; Some have weak lungs, or kidneys, or early liver problems; Some have weak eyes, or poor hearing, or a poor musculature; Some have innate tendencies to being heavy, others to being skinny; Some are retarded, deformed, tall or short. According to Adler's concept of *psychological inferiorities,* when individuals are told that they are dumb, or ugly, or weak, many compensate by becoming good at something else, but otherwise retaining the sense of inferiority while some just never develop any self esteem at all. Thus, the consequence of both *organ inferiority* and *psychological inferiority* is the development of irrational thoughts and belief which could precipitate negative self-image.

2.1.8: Social Learning Theory

Social learning theory focuses on the learning that occurs within a social context. It considers that people learn from one another. Included are such concepts as observational learning, imitation and modeling. Albert Bandura is considered the leading proponent of this theory (Bandura, 1977). This theory is grounded in the belief that human beings are determined by a three-way relationship; between cognitive factors, environmental influences and behaviour. In the words of its main architect "social learning theory

approaches the explanation of human behaviour in terms of continuous reciprocal interaction between cognitive, behavioural and environmental determinants (Bandura, 1977). The general principles of social learning theory includes – people can learn by observing the behaviours of others and the outcome of these behaviours, learning can occur without a change in behaviour; the consequences on behaviour play a role in learning and cognition plays a role in behaviour.

This theory has been applied extensively to the understanding of aggression (Bandura, 1973) and psychological disorders, particularly in the context of behaviour modification (Bandura, 1969). It is the theoretical foundation of the technique of behaviour modeling which is widely used in training programs. In recent years, Bandura has focused his work on the concept of self-efficacy in a variety of context (Bandura, 1997). The most common (and pervasive) example of social learning theory situations is television commercials. Commercials suggest that drinking a certain beverage or using a particular hair shampoo could make people popular and win admiration of attractive people. Depending upon the component processes involved (such as attention or motivation), people may try to model the behaviour shown on the commercial and buy the product being advertised. This observation could also aid in the understanding of learning and motivational factors of theself-image.

2.1.9: Social Comparison Theory

Festinger (1954) theorised that humans have an innate tendency to derive information regarding the self through the process of social comparison. Research posits that comparisons with others who are superior to oneself on the attribute of interest often are associated with increase in emotional distress and decreased self-esteem (Major, Testa &

Bylsma, 1991). Others maintain that a tendency to compare one's physical appearance to others seem to be related strongly to self-image dissatisfaction (Striegel-Moore, McAvry & Rodin, 1986). High scores on measures assessing the tendency to compare physical and social competence to others have been shown to be strongly related to high scores on emotional distress, self-esteem and self-image dissatisfaction. In a study by Heinberg and Thompson (1992), subjects who compared themselves to a more familiar others (e.g., friends and classmates), reported greater body anxiety and social distress than those who compared themselves to generic others (example, average persons in a given society). Thus, majority of variance in self-image concerns can be accounted for by the tendency to make social comparisons and the tendency to be aware of and internalise socio-cultural norms regarding self-image and attractiveness (Stormer & Thompson, 1995).

2.2: REVIEW OF EMPIRICAL STUDIES

Much of the evidence for the manifestations of negative self-image are derived from multiple factors. To adequately understand these factors, the study reviewed literature that related with the risk and protective factors of negative self-image. The study also examined literature that relates negative self-image with stress and emotional discomfort, and those that relate physical appearance with the opinion of others. The study further reviewed specific areas that dealt with the clinical implications of negative self-image as well as the role of perception and developmental experiences in negative self-image. Finally, the review examined related assessment and management studies

2.2.1: Risk and Protective Factors of Negative Self-Image

The goals of risk factor research are to formulate etiological models for a particular disorder, design preventive or treatment interventions for the disorder and identify those individuals or groups most at risk and therefore most likely to benefit from interventions (Kazdin, Kraemer, Kessler, Kupter & Offerd, 1997). Risk factor research involves the study of both risk and protective factors. Risk factors refer to "antecedent conditions associated with an increase in the likelihood of adverse, deleterious or undesirable outcomes" and protective factors refer to "antecedent conditions associated with a decrease in the likelihood of undesirable outcomes or an increase in the likelihood of positive outcomes" (Kazdin et. al., 1997). It is important to demonstrate that risk and protective factors precede the outcome of interest. If they do not, it is more appropriate to refer to them as correlates, concomitants or consequences of the disorder (Kadzin et. al., 1997). Risk factors have been categorised into three types: fixed markers, variable marker and causal risk factors (Kadzin et. al., 1997). A fixed marker is a risk factor that cannot be changed (example, race, gender), and a variable marker is a risk factor that changes or can be changed, but changing it does not affect the outcome. A causal risk factor, on the other hand, is one that is manipulated and, when manipulated, changes the outcome. Fixed and variable markers can be very useful in choosing a population to target for treatment or intervention programme. However, in designing an intervention, it is essential to focus on causal risk factors because these are the only factors that are capable of altering the outcomes. In addition to identifying risk and protective factors, it is also important to study the variables that mediate or moderate the effects of these factors. Moderators are variables that influence the direction and magnitude of the risk factor – outcome relationships, and

mediators refer to the processes or mechanism by which a risk factor, or set of factors operates to produce an outcome (Kadzin et. al., 1997).

Though there are controversies over the definitions, the term risk factors generally refers to influences that increase the likelihood that an individual may develop a given physical or emotional difficulties (Shisslack & Crago, 2002) in this case, negative self-image; and protective factors are those characteristics and opportunities that decrease the chances that a problem will emerge. Risk and protective factors for a particular disorder may vary as a function of age, gender, ethnicity and social class (Kadzin et. al., 1997; O'Connor & Rutter 1996). Different factors may be responsible for the onset of a disorder than for maintenance, recovery or relapse. In addition, risk and protective factors may be either general or specific. General factors are those associated with a particular disorder. With many disorders, there is more than one causal pathway to the disorder, consisting of both general and specific factors. Finally, risk and protective factors may vary depending on whether the disorder is acute or chronic, pure or co-morbid, partial or full syndrome, or a community versus clinic case (Attie & Brooks-Gunn 1995; Wilfey, Pike & Striegel-Moore, 1997).

2.2.1.1: Risk Factors

A variety of risk factor models which could also contribute to the understanding of emotional and physical factors of negative self-image could be deduced from several works (Conners 1996; Leung, Geller & Katzmen 1996; Pike 1995; Smolak & Levine 1996; Stice 1994; Striegel-Moore & Cachelin 1996; Wilfey, et. al., 1997). These models include multiple putative factors that could be divided into three general categories: Individual (biological, behavioural, personality), Family, and Socio-cultural. Risk factors of an

individual nature that have been proposed in these models include low self-esteem, perfectionism, inadequate coping skills, poor social skills, body dissatisfaction and weight concerns. Also included are impulsivity, being overweight, early maturation, dieting, and initiation of dating and low IQ. Family risk factors that have been proposed include parental over-protection, parental neglect, parental loss or absence, family conflict, parental obesity, family concern about shape or weight and parental psychopathology. Socio-cultural risk factors include importance of appearance for success, thin beauty ideal for women, gender role conflict, teasing about weight or shape, media influence and physical or sexual abuse. Negative emotionality, sense of ineffectiveness, depression, lack of introspective awareness was risk factors observed by (Leon, Fulkerson, Perry, Keel & Klum, 1999), while poor communication and poor role differentiation in the family were reported by (Callan & Waller 1998). Other risk factors are: negative emotionality, (Martin, Wertheim, Prior, Smart and Oberklaid, 2000), past psychiatric history and mother's lack of self-confidence (Patton, Johnson-Sabine, Wood, Mann & Walkeling, 1990). Yet others are excessive exercise, disordered eating at baseline, female gender, unstable self-perception, and depressed mood (Wichstrom 2000).

These studies indicate a number of potential risk factors for negative self-image. Below are possible protective factors of negatives self-image.

2.2.1.2: Protective Factors

In contrast to risk factors for negative self-image, relatively little is known or has been written about protective factors that may increase resistance to negative self-image. Among the individual protective factors that have been proposed are: (a) being self-directed and assertive (Rodin, Striegel-Moore & Silberstein 1990); (b) Successful performance of

multiple roles – for example, education, career, family, personal interests (Rodin et. al. 1990); (c) Coping well with stressful situation (Rodin, et. al., 1990; Striegel-Moore & Cachelin, 1999); (d) High self-esteem (Shisslack, Crago, Renge & Clark-Wagner 1998; Striegel-Moore & Cachelin 1999); and (e) a genetic predisposition to be slender (Conners, 1996; Rodin et. al., 1990).

Family protective factors that could be deduced are (a) being a member of a family in which there little or no emphasis on weight and attractiveness (Conners, 1996; Rodin et al., 1990); and (b) close, but not too close, relationships with parents (Smolak & Striegel-Moore 1996).

Protective factors of a socio-cultural norms are (a) Social acceptance of a diverse range of body shapes and sizes (Rodin et. al., 1990); participation in sports that encourage the appreciation of the body for its performance more than just its attractiveness (Rodin et. al., 1990; Smolak, Murnen, & Ruble 2000); (c) close relationships with friends or romantic partners who are relatively unconcerned with weight; (d) Good social support (Rodin et. al., 1990; Striegel-Moore & Cachelin 1999).

2.2.2: Stress and Negative Self-Image

Studies of stress in middle age and adolescence by Kanner, Coyne and Schaefer (1981) reported that three out of ten most frequent routine hassles are concerns about physical appearance and social acceptability. An estimate of the prevalence of behavioural symptoms of negative self-image in 50 participants showed a most consistent feature of avoidance of social situation, fear of negative evaluation and emotional difficulties. Although the number of participants used for (Hayne et al 1981) study appeared

insufficient for a more generalised conclusion, the result provided some intriguing information regarding negative self-image and psychological well-being.

2.2.3: Physical Appearance and Psychological Well-being

Cash, Winstead and Janda (1986), carried out a survey research on the influence of psychological well-being on physical appearance. The authors included items in the survey to tap what they believe constituted psychological well-being. These items asked about self-esteem, life satisfaction, loneliness, depression and feeling of social acceptance. An analysis was made of 2,000 person-sample of 30,000 person-survey of the general public on self-image. The researchers found a relationship between psychological well-being and self-image. Only 73% of the women and 62% of the men who had negative images of their physical appearance were well adjusted, whereas, 97% of women and 95% of men with positive images of physical appearance were well adjusted. This indicates that more persons with positive perceptions of physical appearance reported favourable psychological adjustment while in contrast, fewer people with negative feelings presented favourable psychological adjustment. The study revealed that females reported more dissatisfaction with physical appearance than males. This observation may be explained by the supposition that women are constantly socialized into relating beauty and attractiveness to success and power. The large sample size used made this study a more reliable reference point. However, there is more to one's self-image and psychological well-being, as other factors reviewed below make the subject matter more interesting.

2.2.4: Negative Self-Image and Developmental Experiences

This perspective focused upon the importance of childhood and adolescent development in later self-image concerns. Aspects reviewed under this perspective include maturational timing, teasing and negative verbal commentary.

2.2.4.1: Puberty and Maturational Timing

Puberty development is associated with multiple psychological and physiological changes for both genders and often is considered to be an important milestone in self-image development. Thompson (1992) observed that late maturation appears to result in less body fat and weight, while early maturation tends to place an adolescent at higher risk of being teased because of the resultant physical changes and mannerisms. Cattarin and Thompson (1994) found in a 3 – year longitudinal study of adolescents, that teasing history predicted later self-image concerns. Levin, Smolak, Moodey, Shiman and Hessen (1994) also suggests a complex equation in which the addition of academic stress to the confluence of advanced puberty status and dating onset resulted in an even more significant increase in risk for disturbed eating and low self-esteem.

2.2.4.2: Negative Verbal Commentary and Teasing

In addition to Levin et al., (1994) observations on the role of teasing, academic stress and advanced puberty status in the development of negative self-image, Fabia and Thompson (1989) further illustrated the role of teasing and negative verbal commentary on negative self perception. It thus appears that teasing, especially during developmentally sensitive periods may have lasting effect on the self-image. Fabia and Thompson (1989) found that

teasing was related significantly to low self-esteem, self-image dissatisfaction and interpersonal difficulties. Brown, Cash and Lewis (1989) reported that adolescents with eating disturbance had a greater history of being teased by peers, with Cattarin and Thompson (1994) asserting that teasing predicted the development of body dissatisfaction in adolescent females. It was also observed that adult males and females, who had been teased about their appearance, social competence, and judged negatively during childhood, were more dissatisfied with their self-image, than those who had been teased rarely (Cash, Winstead & Janda, 1986). Thompson, Coovert, Richards, Johnson and Cattarin (1995), using exploratory casual modeling procedure found that teasing history had a direct influence on overall psychological functioning. Tantleff-Dunn, Thompson and Dunn (1995), in an examination of the effect of negative feedback on the development of self-dissatisfaction, observed that even more subtle aspects are associated with appearance dissatisfaction and overall psychological functioning.

2.2.5: Negative Self-image: The role of Perception

Most people assume everyone see the world the same way. This can be expected because people are not able to compare what they see to what someone else sees (using language to describe visuals is inherently biased). This widely accepted assumption, however, is inaccurate. There is evidence that each person's perception of the world is different, if only in minor ways. For example, a perception discrepancy can be found when comparing how people suffering from anorexia nervosa see their bodies (Grogan, 1999). Even though this distortion is in extreme, analyzing the distorted body phenomenon can be useful and perception differences can actually be documented (most perception

differences cannot even be verbalized). This can help to explain the concept of perception by answering three key questions:

1 What does a different perception entail?

2 What provokes different perceptions to occur and

3 How does this all fit into together on a neurological level (Mosher, 1998).

Perception is thus not just a collection of input from the sensory system instead it is the brain's interpretation of stimuli, which is based on an individual's biological process and past experience. The following are three variables that could explain the perceptual related dimension of real or imagined defects in physical appearance; a strong determinant of negative self-image.

2.2.5.1: Cortical Deficit

Thompson and Spana (1991) developed a model of cortical deficit to explain perceptual disturbance of differences. They hypothesised that size overestimation relies on visuo-spatial ability and may be the result of more general visuo-spatial deficit that can be measured via neuro-psychological testing. Their results indicated that size overestimation was related positively to more general visuo-spatial abilities, as measured by the Benton Visual Retention Test (Thompson & Spana, 1991). In contrast, a study found that subjects demonstrated greater overestimation for themselves than for a mannequin (Dolce, Thompson, Reiter & Spana, 1987). Thus, accuracy of size perception may not be simply a consequence of visuo-spatial ability instead as (Dolce et. al., 1987) concluded, cognitive and affective influences may interact with perceptual skills to produce size perception estimation. Braun and Chouinard (1992); Trimble (1988), further hypothesised that people with eating disorders, anorexia nervosa and body dysmorphic

disorders, a behavioural and clinical indicator of negative self-image, may suffer from automocrosomatognosis, which consist of a hallucination and delusions of one's body being larger or distorted than it actually is. Automocrosomatognosis often is associated with brain paroxysms; its' focus is within the parietal lobe and requires sub cortical and cortical involvement (Braun & Chainard, 1992).

2.2.5.2: Perceptual Artifact

Adherents to this view state that an overestimation of one's body size is related to one's actual body size. Thus, individuals who are of a smaller size may overestimate to a larger extent than individuals of average or larger size (Coovert, Thompson & Kinder, 1988; Penner, Thompson and Coovert, 1991). To test this hypothesis, control subjects were matched with anorexic subjects on actual size, selecting a dispositionally thin non-eating disordered group that was size-matched to the anorexic subjects (Penner et. al., 1991). Results revealed no differences in the level of overestimation for anorexic and the small-sized control subjects. Coovert et al., (1988) tested perceptual artifact view in a larger sample of normal subjects by correlating actual body size with degree of overestimation. They observed that larger levels of overestimation were associated with small body sizes (Thompson 2002). One implication of these findings is the need to co-vary out actual size in any study of size estimation of different size groups (example, obese versus normal, anorexia versus normal).

2.2.5.3: Adaptive Failure

This view indicates that subjects' perception of their body size and appearance may not change at the same rate as their actual appearance changes. (that is, as they loose or gain

weight, or achieve a more ideal physical appearance). Crisp and Kaluchy (1974), observed that, following weight loss, perception of body was found to remain constant; the greater the size changes, the higher the overestimation of body size and appearance. Slad (1977), in a partial support of this hypothesis, by testing women at four to eight months of pregnancy, observed accuracy at eight months. Perhaps because of the difficulty of following subjects from their maximum weight through various stages of weight loss, adaptive failure theory has not been empirically tested, adequately (Thompson, 2002).

2.2.6: Body Dysmorphic Disorder (BDD).

Phillips, McElroy, Keck, Pope and Hudson (1993), using 13 women and 17 men, on a measure of 24 variables obtained the following result on Body Dysmorphic Disorder (BDD): dissatisfaction with Hair (63%), Nose (50%), Skin (50%), Eyes (27%), Breast size or shape (20%), Head-face shape (20%). Others include, Overall body build (20%), Lips (17%), Chin (17%), and Stomach (17%), Teeth (13%), Legs (13%), Breast-Pectoral muscle (10%), Ugly face (10%), Ears (7%) and Cheeks (7%). Complain with the size and shape of Buttocks was (7%), Arms (7%), Penis (7%), Neck (3%), Forehead (3%), Facial muscle (3%), Shoulder (3%) and Hips (3%). This result indicates that respondents were more dissatisfied with the hair, nose and skin and least dissatisfied with the forehead, shoulders, hips and facial muscles. In a related study of 54 women, Rosen, Reiter and Oroson (1995), using 14 variables obtained the following results: dissatisfaction with Thighs (38%), Abdomen (35%), Breast size (20%), Skin (17%), Buttocks (15%), Facial features (12%), Overall weight (9%), Scars (8%), Aging (7%), Hair (7%), Height (6%), Hips (5%), Teeth (4%) and Arms (3%). Thus, two weight-relevant body sites (thigh and abdomen), were the most often found in the Rosen et al. (1995) survey, in contrast, with

the Phillips et al. (1993) data where the top categories were hair, nose, skin and eyes. The differences in the two surveys may be related to the differences in the samples used in data collection. Phillip's sample evaluated men and women, whereas Rosen et al sample evaluated only women. In addition, it appears that Rosen et al included only primary and secondary complaints, whereas Phillips et al data contained all reports of appearance concerns. In spite of the differences, these data are very useful indicators of the great range of appearance components that may form the excessive concern that trigger negative self-image in body dysmorphic disorder clients.

2.2.7: Studies on Dissatisfaction with Specific Body Areas

2.2.7.1: Breast Size and Shape

Self Magazine conducted a survey in 1996 of over 4,000 women and found that over half would change their breast if they could, (Grant, 1996); 43% thought that their breast size made a difference to their partners' enjoyment and 62% of that group stated that they had that opinion because of specific comments from partners, friends and peers. In a related study, Thompson and Tantleff (1992) developed the breast-chest rating scale, which consists of five sizes ranging from the small to the large, and asked men and women to rate their current size and their ideal size. Both men and women preferred to have larger chest and breast than they currently possessed. In addition, there were some interesting findings relating to stereotypical beliefs about the ideal size ratings of other individuals. In general, men and women overestimated the ideal size they thought others would choose, indicating that people are not actually enamored of large breasts and chests as the raters thought. Jacobi and Cash (1994) reached similar conclusions for breast size. They observed that women's own size rating was smaller than their ideal, and they overestimated the ideal breast size picked by men. Also, in a longitudinal study of size

preference covering six years, from 1990 – 1996, by Tantleff-Dunn, Thompson, Sellin-Wolters and Ashby (1997), men and women were found to be consistent in their dissatisfaction with breast-chest size. Ratings of actual size were smaller than the ideals of each of the four measurement periods during the six years. Interestingly, these findings highlighted the role of faulty cognition in the overestimation of breast – chest sizes among participants.

2.2.7.2: Facial Features:

Many aspects of the face are foci of dissatisfaction among individuals of different backgrounds. For instance, Hall (1995) noted that eyelid surgery to modify the epicanthic fold (the fold of the skin of the upper eyelid over the inner angle or both angles of the eyes) and nose reconstruction is common. Rhinoplasty (nose surgery), Rhytidectomy (face lift), and Blepharoplasty (eyelid lift) are among the most common cosmetic surgeries performed each year reported (American Society of Plastic and Reconstruction Surgeons, 1996). Ear surgery, jaw surgery, chin augmentation or reduction, brow or forehead lift, and cheek surgery are also popular facial sites for intervention. Sarwer, Wadden, Pertschuk and Whitaker (1998), carried out a study on body dissatisfaction in male cosmetic surgery patients. They observed that these patients were more dissatisfied with the body site or feature for which surgery was carried out but did not differ in overall appearance satisfaction from a normative control group of men. These findings were extended in their analysis of a sample of women seeking rhytidectomy (face lift) or blepharoplasty (eyelid lift) to improve aging facial features. It was observed that satisfaction with site of concern was lower than for a control group, but overall

satisfaction with appearance was higher than for the controls (Sarwer, Wadden & Pertschuk, 1997).

2.2.7.3: Hair Loss:

Androgenetic alopecia or male pattern hair baldness (MPB), affects the majority of men over the age of 50 (Cash, 1990), and this change in appearance may have dramatic effects for the emotional well-being of the individual. Cash (1992) found that men with extensive MPB described negative social and emotional effects from hair loss. In fact, hair transplant or restoration surgeries are by far the most popular cosmetic surgery for men (American Society of Plastic and Reconstructive Surgeons, 1996). Cash, Price and Savine (1993) directly compared female and male participants with MPB and found that the consequences were significantly more deleterious for women. Women reported more adverse psychosocial events, reported reduction in positive life events and were more dissatisfied on a measure of overall appearance evaluation than were men.

2.2.7.4: Body Weight

Research with children, adolescents and adults documented high levels of self-image dissatisfaction that occurred in individuals who do not meet the societal ideal of weight and size. Studies also indicated that elevated weight or body fat may be associated with hazardous social interactions, such as being teased about one's appearance, that lead to elevated levels of negative self-image (Cattarin & Thompson, 1994). Striegel-Moore, Wilfley, Caldwell, Needham and Brownell (1996), in an evaluation of 324 black and white women (drawn from a pool of over 20,000 subscribers to Consumer Reports), assessed nine different reasons for undertaking a weight loss program. The items include

concern about health, desire to improve appearance, pressure from others, and desires to feel better about self and an up-coming event. Others include desire to have more energy, desire to improve social life, desire to work better at work and feeling comfortable physically. Questions were rated on a scale ranging from 1 (not at all important), to 5 (extremely important). Results indicated that none of the comparisons between black and white participants for any of the nine measures were significantly different. However, a comparison on the strength of rating across different items reveals that desire to improve appearance and "wanted to feel better about self" were the highest rated items of importance. This study is remarkable judging from the fact that the 324 participants were randomly selected from a pool of 20,000 Sample size, thus forming a very representative sample. It also indicates the universality of self-image concerns, as there are no significant differences in the responses of black and white female participants. Also the fact that participants recorded higher concerns with the "desire to feel better about self and improve appearance" shed more light on why women could engage in dieting or cosmetic plastic surgeries, which are often self-consuming and health risking. However, the study appeared tilted because its main focus was on the females.

In a related study, Smith, Thompson, Raczynski and Hilner (in press) evaluated body satisfaction and investment in appearance (that is, the importance of physical appearance to the individual), in a large sample of black and white men (1,838) and women (1,898). It was observed that black men and women were more invested in appearance than white men and women, but were more satisfied with their appearance. This finding indicates that cognition and behaviours associated with appearance issues – which are what the items on the appearance investment measure assessed do not necessarily translate into

dissatisfaction with one's looks. However, one possible explanation to the ethnic differences observed in these studies may be borne from observation that black women self image may not be as dependent on weight as that of the white women. Overweight black women could focus on a variety of appearance features (e.g., hair, make-up, dress, traditional jewelries and body marks) where as, white women appear to be focused more on weight. This component of appearance may dominate internal feelings about their looks. This is only one hypothesis, and research to test it and other possible explanations is needed. This study is quite commendable, judging from the number of participants employed. However, it underscores the influence of age, income, and educational status amongst others on self-image concerns.

In a more in-dept survey by Cash and Henry (1995), 803 women, ranging in age from 18-70 years old, from five regions of the United States (Northern, West Coast, Southwest, Southeast and Midwest) were studied. The sample was conducted to represent race, age, income, education and geographical region. The result revealed that levels of disturbance on measures of dissatisfaction, appearance evaluation and overweight preoccupation were remarkably consistent across ages. On only one dimension, appearance evaluation, was there any difference across the 18-70 age range, with 18-24-year-olds rating their bodies more positively (Mean: 3.07), than did all other ages: 25-34 (2.94), 35-44 (2.92), 45-54 (2.88), 55-70 (2.86). The study noted that ethnicity was clear-cut in all measures: Blacks were more satisfied than whites in all measures. Interestingly, the observation that those in the age range of 18-24 appeared more satisfied with their bodies could be explained from the standpoint that youthfulness presents with more attractive body features than middle and old age. This is also hypothetical and inconclusive. It is however interesting

to note that body size remains one of the few personal attributes that many individuals still see as an acceptable target of prejudice, while movies, talk shows and magazines provides abundant models for the disparagement of fatness.

2.2.7.5: Eating Disorders

For many years, body image has been thought to be essential to both understanding the etiology of eating disorders and strategizing optimal therapeutic interventions. Bruch (1962) considered it the most important pathognomonic feature of anorexia nervosa and felt that successful treatment of the eating disorder "without a corrective change in the self image" was likely to be short lived. Slade (1982) contended that it was the primary force behind both anorexia nervosa and bulimia nervosa. Rosen (1992) felt that the disordered-eating patterns and weight-control strategies of the individuals with eating disturbance were secondary to over-concern with body shape and weight, even noting that "it may be more appropriate to think of anorexia and bulimia nervosa as self- image disorders"

Supportive studies for this argument are most underlined by the research conducted in the last years on the risk factors for the development of eating disorders. Graber, Brooks-Gunn, Paikoff and Warren (1994) tracked 116 girls from young adolescence into adulthood over a period of 18 years. They evaluated the role of several predictors of risk factors for eating disturbances during three time periods: young adolescence, mid adolescence and young adulthood. Level of body fat was found to be predictive of eating disturbance at all three epochs; body satisfaction was significantly related at the first two time periods. Stice and Agras (1998), in a sample of female adolescents followed for 9

months found that not only did body dissatisfaction predict the onset of binge eating and purging but also that decreased body dissatisfaction predicted the remission of these bulimic behaviours.

These longitudinal studies support the contemporary view that self-image issues may be at the core of eating disorders (Rosen, 1992; Thompson, 1996). Works with structural equation modeling and covariance structure modeling analyses indicate that self-image disturbance may also mediate the connection between other multiple risk factors and eating disturbances. For instance, Veron-Guidry, Williamson and Netemeyer (1997), found that eating-disorder symptoms were affected by the interaction of social pressure for thinness, negative self-appraisal and negative affect, but that body dissatisfaction mediated the relationship between the risk factor and eating disturbance. However another longitudinal study with adults shed unexpected positive light on the potential changes in self-image and related eating disorder symptoms over time. Heatherton, Mahamedi, Striepe, Field and Keel (1997) followed 509 women and 206 men from 1982 when they were in college until 1992. On average, the women gained 4 lb (1.81kg) and became more satisfied with their weight, while men gained 12 lb (5.44kg) and became more dissatisfied. Study also revealed that in 1982, 49% of the women reported they were "overweight" and in 1992, the figure dropped to 25%. For men, however, 13.7% stated that they were overweight in 1982, and the figure increased to 24.4% for 1992. These and other findings indicate that women's dieting, body dissatisfaction and eating- disordered symptoms tend to diminish with time, suggesting that maturing into adulthood and getting away from the enormous social influences that emphasize thinness probably helps women escape from chronic and abnormal eating. Whereas for men, the pressure of old

age as well as an unwritten desire to attract younger women may be at the core of self-image anxieties.

2.2.8: Nigerian Studies

In one of the few Nigeria studies on self-image, Balogun, Okonofua and Balogun (1992), examined the attitudes of 286 Nigerian University students towards their physical image. Participants were asked to complete the 25-item version of the Body Cathexis Scale. Result indicates that body weight and general muscle development were aspects with which they were most dissatisfied. Men were significantly more satisfied with the ear and general muscle development as well as size and appearance of sex organs than women. By disclosing the self-image anxieties associated with adolescence and physical development, the study further buttressed the realities of psychological difficulties associated with negative self image.

Onyeaso and Arowojoh (2003) assessed perceived and desired need for orthodontic care in a randomly selected 567 Nigerian students in Ibadan, Nigeria. Result revealed that 48.6% of participants with various degrees of malocclusion desired orthodontic care and 81.7% perceived the need for orthodontic care. No statistically significant gender differences were observed.

Onyeaso and Sonu (2005), in an attempt at analyzing the psychological implications of dental appearance on a Nigerian sample, assessed 614 secondary school children (327 males and 287 females), aged 12-18 (mean age 14.9). They filled a questionnaire containing general questions about specific inquiries concerning self-perception and

social implication of dental appearance. The children's occlusions were also assessed using the Dental Aesthetic Index (DAI) and the Malocclusion traits related to body image, self-perception and social implications of dental appearance. The lowest rating was observed in subjects with crowding of the maxillary and mandibular incisor segments. Highly significant differences (p. 001) were found between subjects with minor malocclusion and those with marked malocclusion, indicating awareness of malocclusion dissatisfaction with the appearance of teeth and unfavorable appearance of teeth compared with those of peers. School mates teasing occurred significantly more often in the presence of malocclusion. It was concluded that certain dental appearance might adversely affect self-concept of Nigerian adolescents.

Owoeye, Aina, Omoluabi and Olumide (2007) carried out a study on, the assessment of emotional pain among subjects with chronic dermatological problems in Lagos, Nigeria. Eighty subjects with dermatological disorders, and of equal sex distribution, were evaluated, with mean age of 33 ± 12.1 years. Each subject was evaluated with a questionnaire to obtain necessary socio-demographic data: Psychache scale (PAS), and subscales C, D, and J of Symptom Check List (SCL-90. The results showed that subjects with dermatological disorders suffered from significant emotional pain when compared to the healthy controls; the males had higher mean scores on PAS and SCL subscales, hence more likely to suffer emotional pain than their female counterparts. Finally, the need to have consultation-liaison psychiatry in the dermatology facilities in Nigeria was emphasised.

The Nigerian studies provided insight into dissatisfactions with self-image of some Nigerian students. Specifically, Balogun et al., (1992) observed that body weight and general muscle development as well as size and appearance of sex organs, were aspects with which participants were most dissatisfied. Oyeaso and Arowojoh (2003) found that 48.6% of participants with various degrees of malocclusion desired orthodontic care. Onyeaso et al (2005), in a sample of 614 students further observed that dental dissatisfaction is exacerbated by teasing from school mates and significant others. Owoeye et al., (2007) observation that subjects with dermatological disorders suffered from significant emotional pain when compared to the healthy controls is indication that dissatisfaction with the self-image is indeed a natural but abnormal response that needs adequate psychological insight.

2.2.9: Negative Self-Image and Orthopaedic Status

The thought of losing an anatomical part is devastating to most people. When it happens, amputation causes a threefold loss in terms of function, sensation and body image. Breakey (1997) using an Amputee Body Image Scale (ABIS) examined self-perception and psychosocial well-being among 90 male lower-limb amputees. Findings indicated significant positive correlations between physical appearance and self-esteem, anxiety and depression. This suggests that amputee's evaluation of his or her physical appearance can influence these variables in either a positive or negative manner. A significant correlation was also found between self-image and life satisfaction. Result of the study supports the hypothesis that a relationship exists in amputees between their perception of their physical image and their psychosocial well being. The significant correlations tended to support other studies were physical disability were found to increase a person's

tendency towards anxiety, depression, low self-esteem and less satisfaction with life. Fishman (1956) studied 96 amputees, all war veterans, to determine whether a relationship existed between self-concept and adjustment to prosthesis. His findings indicated a significant relationship. In addition, Fishman (1956) identified several human needs common to amputees: they include; economic security, status and respect of one's peers, physical functioning with prosthesis, visual and auditory consideration of prosthesis and achievement in various activities with the use of prosthesis. This affirms that once these needs cannot be completely satisfied, the consequences of the frustration that arises can result in psychological conflict and varying behaviour. Goffman (1963) also observed that some amputees experience psychic pain that translate into a stigma. As a consequence, they expect to be ostracized from the group as less acceptable human being. Fearing rejection, they may view themselves as revolting and project these feelings on relatives and friends. They may withdraw from and reject their friends to avoid the pain and anxiety of the anticipated rejection (Henker, 1979).

Weiss, Fishman and Krause (1970) studied 56 trans-fermoral amputees and 44 trans-tibial amputees using a battery of tests and a 50-item Amputee Behaviour Rating Scale (ABRS). The rating scale assessed the actual behaviour of the amputees as observed by the members of the amputee clinic team. The team members completed the form: the physician, therapist, prosthetist and the rehabilitation counselor. On nearly all measures, the trans-tibial amputees obtained better scores than the trans-femoral amputees. The investigators found that the level of amputation was significantly related to numerous aspects of psycho-physiological and personality functioning. They concluded that since trans-tibial amputees are less disabled as a group, they generally function better than

trans-femoral amputees. In addition, they suggest the less positive self-image of the trans-femoral amputees can also be attributed to a less-appealing gait, often with a noticeable gait

A study by Frank, Kashani, Kashani, Wonder, Umlauf and Ashkanazi (1984) using Beck Depression Inventory, the Symptom Checklist and interviews to evaluate 65 amputees, set a median age of 65 years to divide amputees into young (N=31) and old (N=35) and a median time since amputation of 18 months to define the recent and long-term amputees. Their findings revealed that in the older amputees, the longer the time since amputation the fewer psychological symptoms and less depression exhibited. In contrast, the younger amputees had increased psychological symptoms and increased depression. The picture of the younger amputees that emerges from the present study is of an anxious, sensitive, vigilant person who has difficulty integrating his or her present life. The older amputees, because of their adaptation to the aging process, may be more malleable in altering body image after limb loss. Kolb and Brodie (1982) observed that a healthy amputee is one who accepts his or her loss and resumes his or her position in the family and work. Reporting on discussions held with amputees at a support group, Racy (1989) considered most of the members to have accepted their new physical image with their prosthesis as part of them. However, all members of the group continued to experience self-consciousness in social situations, with members admitting to a tendency to walk more clumsily in public when they felt they were being observed.

2.2.10: Negative Self Image and Keep-fit Exercisers

Many studies have examined at the motives for participating in exercise and sports. The differences in men's motives and women's motives have been thoroughly studied. Anderson (2003) found that the more motives a person have for exercising, the more likely that they would with their exercise program.

Hlevenka (2005), study looked at appearance related motives for exercising as well as health related motives for exercising, and other (neither appearance related nor health related) motives for exercising to see if any motive is more responsible for making someone stick to an exercise programme. This was different from Anderson's (2003) study because it looked at the differential impact of particular motives as opposed to number of motives. Hlevenka (2005) hypothesized that people who exercise for health related reasons would stick to their exercise program longer. The participants were 62 undergraduate and graduate students, 32 males and 30 females, ranging from 18 to 32 years of age, with a mean age of 20.65 and a standard deviation of 2.42, at Clemson University. They were recruited by the author, outside the University's recreation center at various times throughout the day. Surveys were used for this study. The first survey was an exercise behavior questionnaire. It asked questions such as, "How often do you exercise (days per week)?" and "How long have you been exercising regularly?" The second survey is based on Silberstein, Sriegel-Moore, Timko and Rodin, Reasons for Exercise Inventory (1988). The original inventory used a Likert scale and has participates rate how important (1 not at all important – 7 extremely important) each reason is to them for exercising. The subjects in this study did not do this. Instead they checked-off all the reasons they exercise. This study only focuses on the reasons people exercise, not the

extent of which they exercise for all reasons. The Reasons for Exercise Inventory also divided the reasons for exercising into seven categories (weight control, fitness, mood, health, attractiveness, enjoyment, and tone) but it was adjusted so all the reasons fit into appearance related, health related, or neither since the study was only interested in appearance and health related reasons.

The author stood outside of the University's recreation centre, at different times during the day, and administered the surveys. The recreation center was chosen because the author was only interested in surveying people who participate in exercise. Since the recreation center is the only gymnasium free to full-time students on campus, it was assumed this is where most of the University's students exercise. The participant was first asked if he/she was a student and if he/she was over age eighteen. If he/she answered yes to both questions, he/she was then asked to fill out the survey. After he/she had completed it, the time was recorded on the survey.

The main hypothesis was that students who exercised for health-related reasons, as opposed to appearance related reasons would exercise and maintain an exercise programme longer. A Pearson Correlation supported the hypothesis, showing a significant correlation between the number of health-related reasons and exercise over the lifetime, such that people who exercised for health related reasons exercised more over the course of their lifetime ($r = 0.272$, $p<0.05$). There was not a significant correlation for the number of appearance-related reasons and exercise over the lifetime ($r = -0.065$, $p>0.05$). There was also no significant correlation for other reasons and exercise over the lifetime($r = -0.002$, $p>0.05$). A Pearson Correlation also showed that the amount of time people exercised in one day correlated positively with the amount of time exercised over

the lifetime ($r = 0.501$, $p<0.01$). This means that people who exercised longer over the course of time, tend to exercise longer in one exercise session.

Since previous literature shows a gender difference in reasons people exercised, Hlevenka (2005) decided to control gender. After controlling for gender, a Pearson Correlation revealed a significant correlation in that males who exercised for health related reasons were more likely to exercise longer over their lifetime ($r= 0.423$, $p<0.05$). A Pearson's Correlation did not reveal a significant correlation for females who exercised for health related reasons and lifetime exercise($r = .159$, $p>0.05$). However, a t-test revealed that these correlations were not significantly different from each other, t (60) = -0.776, $p>0.05$. A Pearson Correlation also revealed significantly for both males and females that the longer they exercised over their lifetime, the more likely they were to exercise longer in one exercise session ($r = 0.544$, $p<0.01$) and ($r = 0.525$, $p<0.01$) respectively. Further more, the students who reported that they exercised more for health related reasons had been exercising longer over the course of their lifetime than the students who reported that they exercised more for appearance related reasons.

It is important to keep in mind the limitations of Hlevenka's study. Only college students were used in that study, therefore, one cannot generalise these findings to the entire population. This study can only be generalised to college students. In order for the study to be generalized to the entire population, a much larger sample must be used consisting of people of all ages and other demographic variables. However, it is important to keep in mind that this data is co-relational, and a true experiment was not performed. Therefore, no causal inferences can be made. There may be a third variable besides health related reasons and length of exercise in one session that is influencing the students to exercise

more over the course of their lifetime. This research only focused on people who were already exercising. The most challenging aspect of getting people to exercise is getting people to make exercising a habit (Anderson, 2003). The majority of people who start an exercise program drop out within the first three to six months (Anderson 2003). Only 4 out of the 62 people surveyed had been exercising for less than six months. Participating in exercise was already a habit for the majority of (Hlevenka, 2005) sample.

Even within college students, the generalizability must be narrowed. The sample used for this study was not a random sample. The students used in this study were only from Clemson University, a mid-sized state university in rural South Carolina. If a different population of students were used, for example, students of a small liberal arts college in the Northeast or a community college in a large city in Lagos, Nigeria, different results would be found. Only college students who exercised at the University's recreation center were used. If someone exercised at an off-campus recreation center, ran outside, or was a university athlete, they did not have the chance to be included in this study. Another important point to remember is that these are reported exercise behaviors of the college students. Their reported behaviour may vary greatly from their actual behavior.

2.2.11: Negative Self-Image and Professional Athletic Status

For many people, their chosen profession or hobby place them either at risk of negative self-image or contribute to a more healthy perception of self and social situations. Eating disorders have been found to be frequent among elite performers of certain sports or physical activities. Ravaldi, Vannaci, Zuchi, Munnucci, Cabras, Boldrini, Murciano, Rotella and Ricca (2003) studied 113 female non-elite ballet dancers, 54 female gymnasium users, 44 male non-competitive body builders, 105 female controls and 30

male controls. They were evaluated using the Body Uneasiness Test (BUT), the State-Trait Anxiety Inventory (STAI), the Beck Depression Inventory (BDI), and the Eating Disorder Examination 12th edition (EDE-12). Results: Non-elite ballet dancers reported the highest prevalence of eating disorders (anorexia nervosa 1.8%; bulimia nervosa 2.7%; eating disorders not otherwise specified 22.1%), followed by gymnasium users (anorexia nervosa 2.6%; eating disorders not otherwise specified 18%). Significant differences ($p < 0.01$) between athletes and their controls were found in the following parameters (median values): Beck Depression Inventory (female dancers 5.7, gymnasium users 6.1, female controls 2.8, body builders 1.6, and male controls 1.3), Body Uneasiness Test (female dancers 1.08, gymnasium users 0.62, female controls 0.54, body builders 0.35, and male controls 0.27), EDE total scores (female dancers 1.6, gymnasium users 1.7, female controls 1.0, body builders 1.0, and male controls 0.4), EDE - restraint subscale scores (female dancers 0.8, gymnasium users 1.6, female controls 0.0, body builders 0.8, and male controls 0.0), EDE-eating concern subscale scores (female dancers 0.4, gymnasium users 0.2, female controls 0.0, body builders 0.0, and male controls 0.0), EDE-weight concern subscale scores (female dancers 2.1, gymnasium users 2.1, female controls 1.6, body builders 1.4, and male controls 0.5), and EDE-shape concern subscale scores (female dancers 2.7, gymnasium users 2.8, female controls 2.0, body builders 2.1, and male controls 0.9).

EDE scores were highly related to Body Uneasiness Test scores, especially in non-elite ballet dancers and in non-competitive body builders ($p < 0.01$). Conclusion: Performers of sports emphasising thinness or muscularity, such as ballet and bodybuilding, showed a high degree of body uneasiness and inappropriate eating attitudes and behaviours.

Weeda-Mannak and Drop (1985) in their controlled study examined anorexic and psychological characteristics of female ballet dancers, who by career choice must focus on thinness, and anorexia nervosa patients. Anorexia nervosa (AN) patients, female ballet (BA) students as well as asymptomatic female controls (AF) were compared with respect to the psychological characteristics: the Drive to Achieve, the Motive to Avoid Failure (Negative Fear of Failure) and the Motive to Achieve (Positive Fear of Failure). The results confirmed previous empirical and clinical findings that the anorexia nervosa (AN) group and the ballet dancers (BA) group can be differentiated from a control group with respect to a heightened Drive to Achieve. However, the Drive to Achieve of AN patients was found to originate in an avoidance of failure (the Negative Fear of Failure), while in BA students this drive was found to stem from a motive to achieve (the Positive Fear of Failure). The findings underlined the similarities and importance of an evaluation of psychological characteristics in subjects with anorexic symptoms as well as those in sports that emphasize thinness or low body weight.

If one were a competitive athlete, in the best shape, he/she would not be very amused. And for many men suffering from muscle dysmorphia, that is what happens every time they sneak a peak at their reflection. Often referred to as reverse anorexia nervosa, muscle dysmorphia is a self-image disorder primarily affecting males in which they become preoccupied with the misperception that their muscles are too small. Individuals with the condition are often driven to spend countless hours in the gym, to the detriment of their relationships, social lives, and physical well-being. No matter how much or how hard they work out, men with muscle dysmorphia never feel muscular enough. But that

does not stop them from trying. "Male athletes who have muscle dysmorphia tend to compulsively lift weights, ignoring signs of physical distress to their ligaments and joints," says Roberto Olivardia, Ph.D, a clinical psychologist at McLean Hospital in Belmont, Mass., and muscle dysmorphia researcher, as well as co-author of The Adonis Complex: The Secret Crisis of Male Body Obsession. "Even when their bodies tell them to stop, they continue working out, thinking that more is better. They also tend not to pay attention to other physiological needs like hydration and food intake. And a number of them would use anabolic steroids" (Weeda-Mannak & Drop, 1985)

In a 2000 study, Phillips and Olivadia (2000) found that 50 percent of men with muscle dysmorphia had used or were using steroids. It was also observed that about one-third of men with muscle dysmorphia have a current eating disorder, a history of an eating disorder, or idiosyncratic eating patterns—such as placing an emphasis on extreme low-fat, high-protein diets. A study carried out in Norway revealed that eight percent of elite male athletes suffered from some type of eating disorder. The British Medical Journal found that the number of men who openly report dissatisfaction with their physical appearance has tripled in the last 20 years, and that therapists report seeing 50 percent more men for evaluation and treatment for eating and body dysmorphic disorders than they did in the 1990s (Phillips et al., 2000).

Phillips et al. (2000), asserted that one percent of the 882 athletes surveyed (of which 57 percent were male) showed possible signs of muscle dysmorphia. While that may not seem like an alarming statistic, the researcher is quick to point out that the questionnaire was not anonymous. She explained that one of the biggest problems with studying muscle

dysmorphia is that men are very reluctant to admit having any type of negative self-image. Muscle dysmorphia is a subtype of body dysmorphic disorder (BDD). BDD is the diagnosis people get when they are preoccupied with how their body looks—whether it is their nose, hair, skin, or any part of their body. Muscle dysmorphia is a type of BDD in which the preoccupation happens to be on their muscularity and their physique. Also in a related study by Jacobi and Cash (1994) in a study of satisfaction of multiple body areas, found that both male and female participants preferred a more muscular physique than they currently possessed. However, Furnham, Titman and Sleeman (1994) found that physical activity status moderated women's positive perception of muscularity: women who were involved in active sports, such as bodybuilding and rowing and had higher acceptance ratings of muscular female body than did sedentary controls.

2.2.12: Negative Self-Image and Psychiatric Status

Gaboriau and Graham (1999) in an attempt to describe the personality disorders of patients seeking facial plastic surgery assessed 133 patients. Preoperative assessment revealed 44-50% with clinical depression, 70% with anxiety, 20% with substance abuse and 23-29% had attempted suicide. Further analysis of the 133 patients revealed that 29% did not meet any criteria for personality disorder, 25% were categorized as narcissistic, 12% as dependent personality and histrionic, 9% were borderline, 4% were categorized as obsessive-compulsive, 3% were antisocial/passive-aggressive and the remaining 1½% listed as schizotypal, 1½ schizoid, 1½% avoidant and 1½% paranoid. Within the group of 133, post-operative patient satisfaction was found highest in the avoidant personalities, followed by those without a personality disorder. Narcissistic, antisocial, excessive-compulsive and paranoid personalities expressed low patient satisfaction scores for their

surgeries. Interestingly, dissatisfaction with physical appearance and fear of negative evaluation may have accounted for avoidant habits reported for those with avoidant personality, of which they naturally became satisfaction and outgoing after correction of the physical defects.

In a related study, Keel, Mitchell, Davis and Crow (2001) findings suggested that depression may be a better prognostic indicator of body dissatisfaction than bulimic symptoms in women diagnosed with bulimia nervosa. Participants were 101 women who completed a controlled treatment study of bulimia nervosa and participated in follow-up assessments 10 years later. Findings indicated that baseline levels of depression were independent of and superior to bulimic symptoms in prospectively predicting body dissatisfaction at follow-up assessment.

To assess psychological co-morbidities and impairment of quality of life in obese individuals seeking treatment at two specialist centres in the UK, patients attending for a first visit between April 2004 and March 2005 completed questionnaires that included scales for measurement of anxiety and depression (Hospital Anxiety and Depression Scale), eating disorder-behaviour (Eating Disorder Inventory 2), assessment of body image (Body Image Assessment for Obesity) and quality of life (Impact of Weight on Quality of Life—Lite). The researchers examined the relationships between variables measured on these scales and anthropometrics data. Of 253 questionnaires evaluated, there were elevated scores for depression in 48%, and elevated scores for anxiety in 56%. Twenty-two percent demonstrated scores suggestive of a personality trait that overlaps with an eating disorder; an additional 11.5% had an elevated score for bulimia. About a

third of individuals had significantly impaired quality of life in the areas examined (Keel et al., 2001).

A study by Tuthill, Slawik, O'Railly and Finer (2006), 208 consecutively admitted patients (ages 12 to 17) on the adolescent in-patient unit of Bradley Hospital completed the Body Dyspmorphic Disorder Questionnaire (BDDQ) as part of their admission evaluation. The questionnaire assesses the presence of BDD by asking whether respondents are very worried about how they look, think about their appearance problems a lot, and wish they could think about them less, and whether their main appearance concern is that they are not thin enough, or might become too fat. It also asked for the amount of time that they spent focusing on appearance concerns. Researchers found that 6.7 percent of patients on the adolescent in-patient unit at Bradley Hospital met criteria for classic (non-weight-related) BDD, but that a much higher percentage (22.1 percent) exhibited distressing and impairing concerns with their weight and shape.

2.2.13: Negative Self-Image: Assessment Studies

The earliest and simplest measures of physical appearance and its influence on psychological well-being were the use of schematic figures or silhouettes of varying sizes, from thin (underweight) to heavy (overweight) and again taking the discrepancy between the individual's choices of their ideal figure versus their conception of the figure that matches their current size. (Thompson, 1992; 1995; Williamson, Davis, Bennett, Goreczny & Greeves, 1989). In the Figure Rating Scale of Stunkard, Sorenson and Schulsinger (1983), participants were asked to select from nine figures that vary in size from underweight to overweight, that which best describe their ideal and perceived self.

Participants included 92 normal male and female undergraduates. There was a significant correlation between figures picked and ideal and perceived self. Most picked figures slimmer than their current weight as ideal self. Williamson, Davis, Bennett, Goreczny and Greeves (1989) designed a Body Image Assessment measure that entails selecting from nine figures of various sizes. Participants were 659 female bulimic, binge eaters, anorexic, normal, and obese individuals. Its test-retest reliability coefficients ranged from .60-.90. Other schematic designs have been created to assess different aspects of physical appearance than overall body size. Thompson and Tantleff (1992) were interested in the upper torso, particularly breast and chest-size satisfaction, and developed the Breast/Chest Rating Scale for this purpose. This involved 5 males and females schematic figures ranging from small to large upper torso. Participants were 43 males and females and test-retest reliability co-efficient ranged from .81 for ideal breast, .85 for current breast and .69 for ideal chest. As expected, ideal size selections were larger than current size ratings, for both men and women.

Gardner, Friedman and Jackson (1998) however criticised some of the figural scales because of the lack of consistent size gradation between adjacent figures. They observed that proportional change from one figure to the other varies. For instance, they evaluated Stunkard, Sorenson and Schulsinger's Figure Rating Scales and noted that the proportional change from size 5 to size 7 was .100 whereas the change from size 4 to size 3 was .176 and the change from size 3 to 2 was .03. Another potential problem with standardizing figure rating procedures is that the size and dimensions reflected by the figure may not match that of the participant, leaving them to state that none of the shapes looked like them. Another important observation is that the facial and hair features often

appear Caucasian, which may make their use disconcerting or inappropriate with individuals of other races.

Alfonso and Allison (1993) designed for 170 male and female undergraduates, an Extended Satisfaction with Life Scale, with a Physical Appearance sub-scale. The scale which tapped into issues of general satisfaction with appearance, on a 7-point likert-type scale, has an internal consistency coefficient of .91 and a two-week test-retest reliability coefficient of .83. In addition, the Multidimensional Body-Self Relations Questionnaire (MBSRQ) measures overall appearance satisfaction and evaluation (Cash 1995, 1997). It is a 7-item scale and the standardization sample included 2000 males and females. It has an internal consistency coefficient of .88 for both males and females. The Self-Image Questionnaire for Young Adults (SIQYA) by Peterson, Schulenberg, Abramowitz, Offer and Jarcho (1984), was designed for 10 to 15 year olds. Standardization sample included 335 sixth grade students who were followed through 8th grade. It has an internal consistency coefficient of .81 and a one-year test-retest reliability coefficient of .60. Another important instrument is the Offer Self-Image Questionnaire by Offer (1992). It is a 129-iten self-descriptive personality test that assessed the self-image of adolescents based on two assumptions. First, it considered the self-image to be multifaceted and secondly, that the adolescent is sensitive enough to his or her internal world to use self-descriptions accurately. It had a range of internal consistency coefficients of .53 to -.76.

The tests reviewed give some insight into various dimensions of self-image concerns. The tests also appeared reliable and suit the population assessed (Caucasian). However, the selection of a scale or multiple measures for an empirical study depends to a large

degree on the characteristics of the participants. The use of any measure must be determined by its appropriateness for the diversity of specific individuals in terms of gender, background, age, and most importantly, race. Many scales have been validated with Caucasian participants and they may not be suitable for use with individuals of other races. For this reason, this study included the development and standardization of Negative Self-Image Inventory (NSII), an assessment instrument that adequately measures the etiological, emotional and behavioural factors of negative self-image. Of utmost importance is the employment of Nigerian participants as the standardization sample.

2.2.14: Management Studies

The growing recognition that possessing a negative self-image may severely impair the quality of a person's life accentuates the need for its management. Phillips (1996) observed that the treatment of one's negative self-image is at the hub of psychotherapy and is the starting point of everything else that follows – improved self-esteem, self-perception and presentation and healthy interpersonal relationship. The possibility of reducing and managing negative self-image is gradually emerging, with researchers exploring ways of reducing the risk factors associated with it.

Maltz (2002), a plastic surgeon, in a bid to address this, developed a Psycho-Cybernetics therapy. He observed that after successful surgery for severe facial disfigurement, some "patients" continued to feel and behave as if they were still deformed. Dr. Malts derived from them that self-image was more important to a "patients" success in life than the surgery. He therefore proposed certain methodological steps that could aid in the

management of faulty self-image. Such steps were summarized by the acronym 'CRAFT' which means Cancel, Replace, Affirm, Focus and Train. According to Dr Maltz, negative self-perception could best be managed when self-defeating thoughts are adequately canceled and replaced with more positive ones. Need for continual affirmation and experimentation of the new adaptive skills was also stressed.

Family therapy was also recommended as the preferred treatment modality for negative self-image (Vanderecycleen, 1989). This is due to the fact that symptoms of negative self-image may arise from developmental tensions that normally emerge within the family especially in transition to puberty and adulthood. Block and Glue (1988) also tested psychodynamic therapy with a woman who was preoccupied with her eyebrows, which she viewed as repulsive. The preoccupation was interpreted as providing her with an excuse to avoid heterosexual relationship and a defensive projection of her own negative self-image. They reported that the preoccupation stopped after experiencing a psychodynamic therapy.

Philippoulous (1979) conducted psychoanalytic therapy two to three times per week for about a year with an adolescent girl who was disturbed with irrational thoughts of being ugly and fat. The preoccupation was interpreted as disguising unconscious sexual wishes. Therapy helped rid the patient of her preoccupation. Systematic dissensitization was also reported to be effective in one of two cases of physical image concerns (Munjack 1978), while exposure plus response prevention was successful in four of five cases (Mark & Mushon, 1980) of the self-image anxiety although only two of the cases were treated properly with behaviour therapy and medication. In comparison, Neziroglu and Yaryura-

Tobias (1993); Watts (1990), reported that the use of exposure therapy plus response prevention alone resulted in improved self-image

Dworkin and Kerr (1987) compared the efficacy of cognitive-behavioural and reflective therapies, relative to a wait-list control group, in increasing college women's body satisfaction and self-concept. Gains in body satisfaction and self-concept for those participating in treatment were significantly greater than those that occurred for the wait-list group. Cognitive-behavioural therapy was also found to be most effective in producing positive self-perceptions and enhanced self-concept, and both were superior to reflective therapy. These thus indicate the efficacy of psychological therapy for self-image distress, and also the importance of a cognitive-behavioural based therapy for disputing and acting out self-defeating thoughts and impulses. Concurrent with Dwarkin and Kerr (1987); Butters and Cash (1987) examined the effectiveness of a more extensive cognitive-behavioural self-image therapy programme. They compared a 6-week cognitive-behavioural individual treatment with a wait-list control subject. The result confirmed significant self-image improvements for the 6-week cognitive-behavioural therapy individual, relative to the control subject. Changes were also maintained at a 7-week follow-up. Outcomes entailed more favourable and satisfying self-image cognitions, less appearance investment, reduction in dysfunctional self-image cognition, and less mirror exposure distress. Self-evaluation of fitness, sexuality, social self-esteem and global functioning were also differently enhanced by treatment. The study also confirmed the efficacy of cognitive-behaviour therapy in tackling self-image disturbances. Its shortfall is in the fact that the result is based on an individual treatment regime, rather than group therapy. It is therefore important to note that the dynamics of a group therapy regime aid a more adaptive and sustainable self-image change. The

treatment duration of 6-weeks reported by the study may not be adequate for a more sustaining change in self-image.

However, feminist authors have different assumptions regarding psychotherapy. Feminist therapists typically eschew the traditional hierarchical doctor-patient relationships because of the belief that it only reinforces women's sense of dependency and helplessness. Instead, they believe on an egalitarian relationships characterized by therapist's self-disclosure, greater informality and nurturance and patient's advocacy (Wooly, 1995). Feminists have also preferred less intellectual interpretation and behavioural strategies and are also more in favour of experiential therapies, such as art, music, movement therapy, gestalt techniques and psychodrama. Feminists also argued that rather than trying to encourage people, especially the women to struggle to meet a cultural demand, therapists should help them accept and celebrate the bodies that they have (Bergner, Rener & Whetshel, 1985). Stated more globally, many feminists believe that the only way to truly improve women's self-image is through advocacy of equality of genders and the discouraging the view that women are defined by their appearance (Dionne, Davis, Fax & Giverich, 1995).

In the mid-1950s, Dr. Albert Ellis, a clinical psychologist, trained in psychoanalysis, became disillusioned with the slow progress of his client. He observed that they tended to get better when they changed their ways of thinking about themselves, their problems and the world. Ellis reasoned that therapy would progress faster if the focus was directly on the client's beliefs, and thus was being the method known as Rational Emotive Behaviour Therapy. REBT is not just a set of technique; it is also a comprehensive theory of human behaviour. It proposes a "bio-psychosocial" explanation of causation – i.e. that a

combination of biological, psychological and social factors are involved in the way human beings feel and behave. The most basic premise of REBT, which it shares with other cognitive-behavioural theories, is that almost all human emotions and behaviours are the result of what people think, assume or believe. "It is what people believe about situations they face – not the situations themselves that determines how they feel and behave" (Frogatt, 2005). A useful way to illustrate the role of cognition is by using Ellis' "ABCDE" model. In the model:

A = activating event.

B = evaluative beliefs which sum up the individual's view of this event.

C = emotional and behavioural consequences largely determined by the individual's belief about this event.

D = disputing disturbance-producing beliefs.

E = new and effective rational outlook accompanied by emotional and behavioural changes (Ellis, 2003).

2.2.15: Summary of Literature Review

Salient issues arising from literature review, as presented in this section entailed conceptual and theoretical issues associated with manifestations of negative self-image. Theories reviewed include Allport's Personality Theory; Freud's Psychoanalytic Theory; Carl Rogers Humanistic Theory; Bem's Theory of Self Perception and Higgins Self-Discrepancy Theory. Also included are: Self Objectification Theory, Adler Organ Inferiority Theory, Social Learning Theory by Bandura (1977) and Social Comparison Theory (Festinger, 1954).

The self-image which Allport (1955) referred to as 'the looking glass self' develops between age four to six years. This is an indication that children are innately aware of the

way they look and the way they feel others see them. This provides insight on the developmental experiences that thwart a positive self-image. The psychoanalytic perspective perceived 'anatomy as power' Concepts like castration anxiety, penis envy, organ and psychological inferiority form explanations from this school of thoughts. Humanistic perspective opined that people receive conditioned positive regard instead of unconditioned positive regard and this undermines their self perception and self worth.

Bem (1972) proposed the looking glass model which comprised three components: 'how we think we appear to others'; 'how we think others evaluate that appearance' and 'the resulting shame or pride we feel'. Similarly, Higgins (1987), in self-discrepancy model posited that the self is constructed as containing many selves; an individuals' perception of his or her actual self and ideal self offering further insight on the etiology of negative self-image. Objectification theory is also based on the principle that girls and women develop their primary view of their physical selves from observations of others. These observations were reported to be triggered by the popular media as well as other personal experiences (Bartky, 1990).

Social learning theories identified the role of learning, imitation and observation on manifestations of negative self-image. To the cognitive theorists, individual differences especially in the area of cognition and information processing offer insights to negative self-image. According to the social comparison perspective, human beings have innate tendency to derive information regarding the self through observations and comparisons. The research posited that comparisons with others who are superior to oneself on the attribute of interest often are associated with increase in emotional distress and decreased self-esteem.

Salient issues arising from the review of empirical studies indicate that risk factors of negative self-image were: negative emotionality, sense of ineffectiveness, unstable self-perception, low self confidence, depression, lack of introspective awareness and excessive exercise. Protective factors identified include: being self-directed and assertive, successful performance of multiple roles – for example, education, career, family, personal interests, coping well with stressful situation, high self-esteem and a genetic predisposition to be slender. Additional empirical research aimed at identifying protective factors for negative self-image was needed and this study therefore intends to fill some of these gaps.

On the influence of psychological well-being on physical appearance, it was observed that persons with positive perceptions of physical appearance exhibited better psychological adjustment than others. The developmental perspectives identified the roles of early maturation, teasing, dating anxieties and academic stress on the development of negative self-image. Further, two weight-relevant body sites (thigh and abdomen), were the most often found in the Rosen et al. (1995) survey on Body Dysmorphic Disorder (BDD). This is in contrast to the Phillips et al. (1993) data, where the top categories were hair, nose, skin and eyes. Drawing insights on the review of specific body parts namely, breast size and shape, facial features, hair loss, body weight as well as eating disorders, it was observed that the manifestations of negative self image is intriguing and multi-faceted.

The Nigeria studies focused on the effect of specific body parts such as sex organs, muscle development, dental image as well as chronic dermatological problems on emotional pain and self-perception.

Assessment Studies: It was deduced that assessment of physical appearance was largely via figure rating scales. Flaws observed were lack of consistency in size graduation as

well as inability to present a reliable standardization score. However, paper and pencil scales were later introduced to improve on and guard against such assessment flaws, but many of the scales reported were validated with Caucasian participants, thus may not be suitable for use with individuals of other races. However, the selection of a scale or multiple measures for an empirical study depends to a large degree on the characteristics of the participants. The use of any measure must be determined by its appropriateness for the diversity of specific individuals in terms of gender, background, age, and most importantly, ethnicity. For this reason, this study included the development of Negative Self-Image Inventory (NSII), an assessment instrument that measured the etiological, emotional and behavioural factors of negative self-image. Of utmost importance is the use of Nigerian samples.

Management Studies: From the management studies reviewed, it could be deduced that even though manifestations of negative self-image vary, its management goals appeared theoretically similar. All are geared towards an improved self-image, thus self-acceptance and psychological well being. In recognition of the observation that cognitive processes play major role in the symptoms and etiology of negative self-image and influence the manifestation of poor social skills and poor coping mechanism informed the use, in this study, of cognitive-behaviour therapy, in particular, Albert Ellis Rational Emotive Behaviour Therapy (REBT) and social skill training (assertiveness training) for the management of negative self-image. This is necessary because of the uniqueness of the participants who are Nigerian males and females and whose feelings of negative self-evaluation are compounded by African cultural practices and socialization. Nigerian women unlike most Western women are socialized into a gender-biased environment where success is erroneously equated with physical attractiveness. Traditionally, they are

expected to be submissive and less assertive with resulting contradictory emotions and feelings. As a result, they may get unassertive and bottle up emotions and feelings, even those relating to self-perceptions and self-worth. Assertiveness training may also help the male participants to positively express their bottled-up emotions in a more healthy way, especially self-image related emotions. It is pertinent to note that such emotions are not usually expressed by men and they are also ill-equipped to tackle such appearance concerns previously considered the problem of the feminine gender. To minimize the shortcomings observed in previous studies, this study employed an 8 - week treatment duration so as to produce a more adaptive and sustaining negative self-image change. The management in this study is also in a group therapy format as this provides group members with more conducive, learning and empathic therapeutic environment.

Below are detailed presentations of the therapeutic techniques employed in this study.

2.2.15.i: Rational Emotive Behaviour Therapy

In the mid-1950s, Dr. Albert Ellis, a clinical psychologist trained in psychoanalysis, became disillusioned with the slow progress of his clients. He observed that they tended to get better when they changed their thinking about themselves, their problems and the world. Ellis reasoned that therapy would progress faster if the focus was directly on the client's belief. REBT is not just a set of techniques it is also a comprehensive theory of human behaviour. It proposes a "bio-psychosocial" explanation of causation – i.e. that a combination of biological, psychological and social factors are involved in the way human beings feel and behave. The most basic premise of REBT, which it shares with other cognitive-behavioural theories, is that almost all human emotions and behaviours are the result of what people think, assume or believe. "It is what people believe about situations they face – not the situations themselves

that determines how they feel and behave" (Frogatt, 2005). A useful way to illustrate the role of cognition is by using Ellis' "ABCDE" model. In the model:

A = activating event (e.g., being rejected by a partner).

B = evaluative beliefs which sum up the individual's view of this event (e.g., I am ugly).

C = emotional and behavioural consequences largely determined by the individual's belief about this event (e.g., depression and negative self-image).

D = disputing disturbance-producing beliefs (e.g., why should I feel depressed, Am I really ugly?)

E = new and effective rational outlook accompanied by emotional and behavioural changes (e.g., an improved self-esteem and social skills based on self-acceptance).

Ellis (2003); Ellis and Dryden (2007), focused on three major insights of REBT:

Insight 1 - People seeing and accepting the reality that their emotional disturbances at point C only partially stem from the activating events or adversities at point A that precede C. Although A contributes to C, and although strong negative As (such as being assaulted or raped) are much more likely to be followed by disturbed Cs (such as feelings of panic and depression) than they are to be followed by weak As (such as being disliked by a stranger). Also, the main or cores of extreme and dysfunctional emotional disturbances (Cs) are people's irrational beliefs — the absolutistic musts and their accompanying inferences and attributions that people strongly believe about their undesirable activating events.

Insight 2 - No matter how, when, and why people acquire self-defeating or irrational beliefs (i.e. beliefs which are the main cause of their dysfunctional emotional-behavioral consequences), if they are disturbed in the present, they tend to keep holding these irrational beliefs and continue upsetting themselves with these thoughts. They do so not

because they held them in the past, but because they still actively hold them in the present, though often unconsciously, while continuing to reaffirm their beliefs and act as if they are still valid. In their minds and hearts they still follow the core "musturbatory" philosophies they adopted or invented long ago, or ones they recently accepted or constructed.

Insight 3 - No matter how well they have achieved insight 1 and insight 2, insights alone will rarely enable people to overcome their emotional disturbances. They may feel better when they know, or think they know, how they became disturbed - since insights can give the impression of being useful and curative. But, it is unlikely that they will actually get better and stay better unless they accept insights 1 and 2, and then also go on to strongly apply insight 3: There is usually no way to get better and stay better except by continuous work and practice in looking for and finding one's core irrational beliefs; actively, energetically, and scientifically disputing them; replacing one's absolutist musts with flexible preferences; changing one's unhealthy feelings to healthy, self-helping emotions; and firmly acting against one's dysfunctional fears and compulsions. Only by a combined cognitive, emotive, and behavioral, as well as a quite persistent and forceful attack on one's serious emotional problems, is one likely to significantly ameliorate or remove them — and keep them removed.

Ellis (2003), further suggested three core beliefs or philosophies that human beings tend to disturb themselves about. First: *"I absolutely MUST, under practically all conditions and at all times, perform well (or outstandingly well) and win the approval (or complete love) of significant others. If I fail in these important—and sacred—respects, that is awful and I am a bad, incompetent, unworthy person, who will probably always fail and*

deserves to suffer." Holding this belief when faced with adversity tends to contribute to feeling of anxiety, panic, depression, despair, and worthlessness. Secondly, *"Other people with whom I relate or associate, absolutely MUST, under practically all conditions and at all times, treat me nicely, considerately and fairly. Otherwise, it is terrible and they are rotten, bad, unworthy people who will always treat me badly and do not deserve a good life and should be severely punished for acting so abominably to me."* Holding this belief when faced with adversity tends to contribute to feeling of anger, rage, fury, and vindictiveness. Thirdly, *"The conditions under which I live absolutely MUST, at practically all times, be favorable, safe, hassle-free, and quickly and easily enjoyable, and if they are not that way it's awful and horrible and I can't bear it. I can't ever enjoy myself at all. My life is impossible and hardly worth living."* Holding such belief when faced with adversity tends to contribute to frustration and discomfort, intolerance, self-pity, anger, depression, and to behaviors such as procrastination, avoidance, and inaction.

REBT commonly posits that at the core of irrational beliefs there often are explicit or implicit rigid demands and commands, and that extreme derivatives like awfulizing, frustration intolerance, people deprecation and over-generalizations are accompanied by these (Dryden & Nenaan, 2003). According to REBT the core dysfunctional philosophies in a person's evaluative emotional and behavioral belief system, are also very likely to contribute to unrealistic, arbitrary and crooked inferences and distortions in thinking. REBT therefore first teaches that when people in an insensible and devout way overuse absolutistic, dogmatic and rigid "shoulds", "musts", and "oughts", they tend to disturb and upset themselves.

In order to tackle largely self-induced emotional problems and thereby attain emotional health, REBT suggests developing a belief system based on preferences, wishes, wants and desires (Nenaan, 2000). These beliefs are called rational and self-helping because they are seen as logical and realistic and could also tackles the rigid and faulty thinking and behavioural pattern characterized by a negative self-image.

2.2.15.2.ii: Social Skill Training - Assertiveness Training

Assertiveness training is important in the management of negative self-image because such emotional tensions resulting from one's self or personal worth could lead to other problems such as avoidance of situations or events and difficulties with healthy expression of feelings.

Andrew Salter initially described assertiveness as a personality trait in 1949. It was thought that some people 'had it', while some people did not, just like extroversion or stinginess. But Wolpe (1958) and Lazarus (1966) redefined assertiveness as "expressing personal rights and feeling. They found that nearly everyday, people could be assertive in some situations, and yet get totally ineffectual in others. The seal of assertiveness training is to increase the number and variety of situations in which assertive behaviour is possible and decrease occasions of passive behaviours.

Psychologists use assertive training, which is a behavioural teaching, to help people develop the necessary skills to manage interpersonal situations more effectively. In particular, it teaches how to refuse unreasonable request from others and how to assert rights in non-aggressive manner.

Assertive training is thus defined as actions that secure and maintain what one is entitled to in an interpersonal situation without impinging on the rights of others (Wolpe, 1958). It

also involves learning the basis social skills that deal with clearly expressing oneself to others, persisting with goals in the face of opposition and appropriately standing up for your self in the midst of conflict or criticisms. Assertive individual are actors and not reactors, they stand up for their desires, values and opinions, while respecting other people's freedom to have their individual differences. Assertive behaviour also reduces anger and anxiety and improves interpersonal relationships.

The first step in assertiveness training is to identify the three basic styles of interpersonal behavior as follows:

Aggressive Style

Typical examples of aggressive behavior are fighting, accusing, threatening, and generally stepping on people without regard for their feelings. The advantage of this kind of behavior is that people do not push the aggressive person around. The disadvantage is that people do not want to be around him or her.

Passive Style

A person is behaving passively when he lets others push him around, when he does not stand up for himself, and when he does what he is told, regardless of how he feels about it. The advantage of being passive is that the individual rarely experience direct rejection. The disadvantage is that the individual is taken advantage of, and is likely to store up a heavy burden or resentment and anger.

Assertive Style

A person is behaving assertively when he stands up for himself, expresses his true feelings, and does not let others take advantage of him. At the same time, he is considerate of others' feelings. The advantage of being assertive is that the

> individual get what he wants usually without making others mad. Meekness and withdrawal, attack and blame are no longer needed with the mastery of assertive behavior. They are seen for what they are - sadly inadequate strategies of escape that create more pain and stress than they prevent. To achieve assertive behavior the individual must face the fact that the passive and aggressive styles have often failed to get him what he want.

Several techniques for assertiveness training have been described in the literature however, all have the same goal of getting the client to express his or her feelings in a socially appropriate way. Such techniques involve: spontaneous expression of feelings: here clients are encouraged to express likes and dislikes in a frank and honest way, without bottling up emotions. The use of facial talk involves practicing facial expressions that normally go well with the emotions being verbally expressed. Others involves practice in expressing contradictory opinion when one disagrees, talking about oneself or the use of I and accepting compliments and reward from others for compliments and assertive talk (Ezeilo & Mogbo, 1995). People who are inhibited often derogate themselves when complemented. Such behaviours only seek to reinforce a person's low self-esteem and to discourage the complementer.

Steps in assertiveness training therefore include: behavioural rehearsal – here client and therapist act out relevant interpersonal interactions. Also inclusive is the "minimal effective response". It is viewed as that behaviour that would ordinarily accomplish a client's goal with a minimum of effort and apparent negative emotion and a very small likelihood of negative consequences (Ezeilo & Mogbo, 1995). Escalation, another important step of assertiveness training is employed when minimal responses are sometimes met with

unresponsiveness. Here client is encouraged to use more pressure in getting his or her demands in the form of first or second order escalation. Training on escalation increases a client's confidence against threatening counter response. Suffice to note that most times, daily attempts at investigating assertive behaviour in persons could be met with negative social feedback, especially during the early stage of training. It is also helpful to note that in spite of these setbacks, assertiveness as a style of living encourages a healthier and happier way of integrating, which is most valuable in the management of emotional and interpersonal difficulties associated with a negative self-image.

2.2.16: Theoretical Framework for this Study

The theoretical framework for this study is an integration of, Organ Inferiority Theory of Adler (1956) and Rational Emotive Behaviour Therapy (REBT) of Ellis (1994, 2003)

The Organ Inferiority theory of Adler (1956), states that individuals have weaker as well as stronger parts of their anatomy or physiology. For example, the perception of being heavy, skinny, deformed, short or too tall constitutes *organ inferiority*. Adler also espoused the theory of *psychological inferiority* (Boeree, 2006), which states that some individuals feel inferior as a result of the perceived negative reactions by others towards them especially in respect of their perceived inferior organs. The consequence of both organ inferiority and psychological inferiority is the development of irrational thoughts and belief which precipitate negative self-image.

The most basic premise of Albert Ellis's model, which it shares with other cognitive-behavioural theories, is that almost all human emotions and behaviours are the result of

what people think, assume or believe. A useful way to illustrate the role of cognition in the maintenance of negative self-image is by using Albert Ellis' "ABCDE" model. In the model:

A = activating event (e.g., I am too fat).

B = evaluative beliefs which sum up the individual's view of this event (e.g., Because I am fat, I am ugly).

C = emotional and behavioural consequences largely determined by the individual's belief about this event (e.g., I am very unhappy that I am ugly, I wish I can change my appearance).

D = disputing disturbance-producing beliefs (expected during management), (e.g., why should I feel unhappy? am I really ugly?)

E = new and effective rational outlook accompanied by emotional and behavioural changes (e.g., I need to develop self acceptance and improve on social skills).

The theoretical framework for this study which is an integration of Adler (1956) theory of organ inferiority and Rational Emotive Behaviour Therapy model by Ellis (1994; 2003) is anchored on the observation that the consequence of both *organ inferiority* and *psychological inferiority* is the development of irrational thoughts and belief which precipitate negative self-image. The essence of the theory of Rational Emotive Behaviour Therapy (REBT) is to identify and dispute the irrational beliefs with a view to alleviating negative self-image.

Find Below a summarized diagrammatic representation emanating from this study.

CONCEPTUAL MODEL OF NEGATIVE SELF-IMAGE

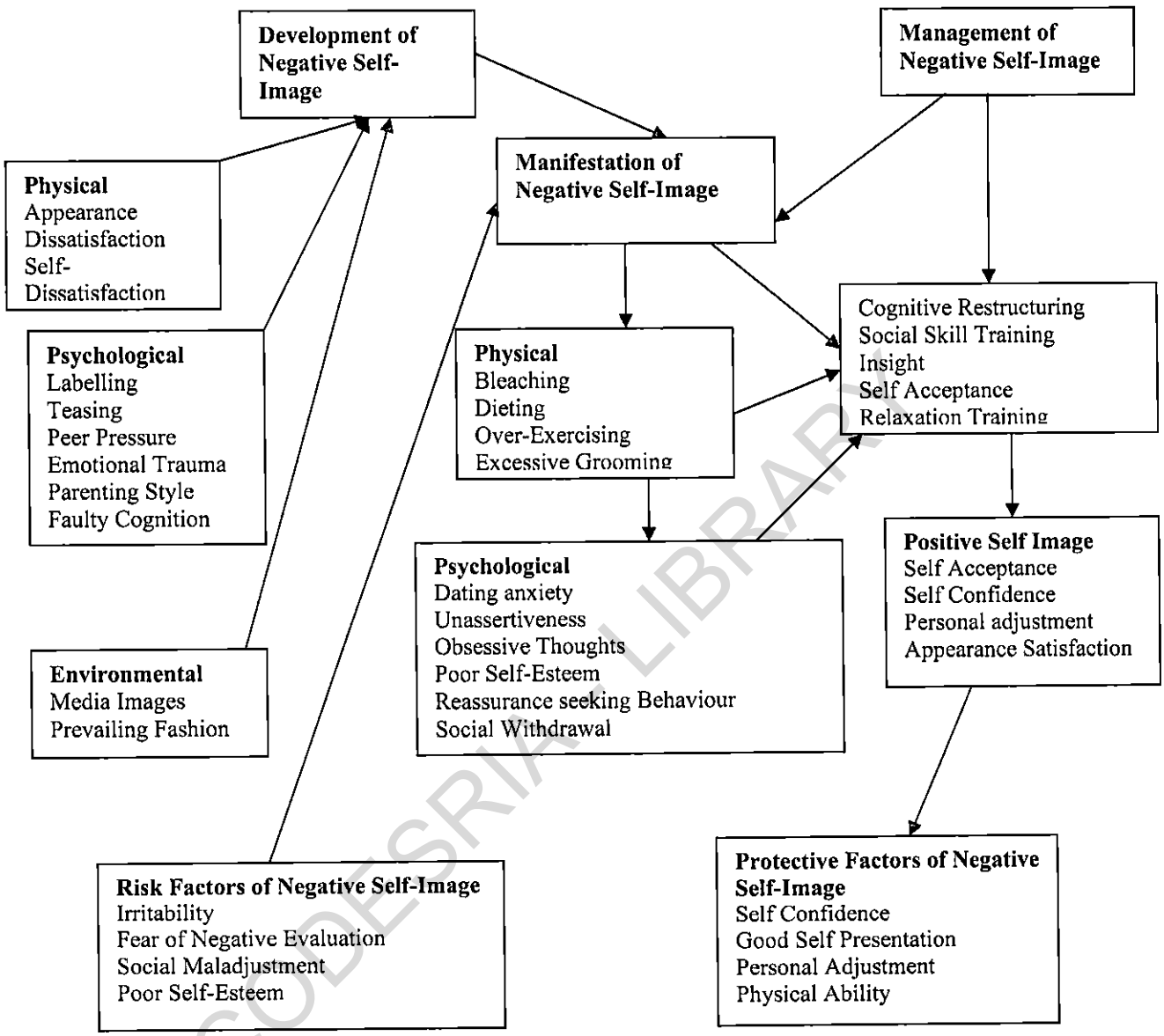

Figure 1

CHAPTER THREE

3.0 METHOD

The study was carried out in two phases:

Phase 1: The Development and Standardization of Negative Self-Image Inventory (NSII)

Phase 2: Assessment and Management of Negative Self-Image

3.1: Phase 1: The Development and Standardization of NSII

The goal of this phase was to develop and establish the psychometric properties of Negative Self-Image Inventory (NSII), which is a newly developed psychological test instrument by the researcher that was used in the second phase of this study.

3.1.1 Study Location

The study was carried out in the following locations in Lagos metropolis: National Stadium Lagos; Proflex Sports Club, Ikoyi Lagos; Universal Fitness Center, Victoria Island, Lagos and University of Lagos fitness club. Orthopaedic participants were drawn from National Orthopaedic Hospital, Igbobi, Lagos and Ward E1 and E2, Orthopaedic ward of Lagos University Teaching Hospital (LUTH), Idi-Araba Lagos. Psychiatric participants were drawn from Yaba Psychiatric Hospital and Ward D, psychiatric ward of LUTH. 'Normal' participants were further drawn from several offices, schools and homes.

3.1.2 Population

The target population for this phase of the study were keep-fit exercisers, professional athletes, orthopaedic patients, psychiatric out-patients and normal group i.e., those not categorized under the aforementioned groups. The study covered Nigerian participants aged 16-54 who are resident in Lagos metropolis. This scope is based on the assumption that urban adults are more prone to manifesting negative self-image than others.

3.1.3 Sample Selection and Characteristics

Purposive sample technique was used to select the 500 participants (males 250, females 250), in the age range of 16 – 54, (mean 30) years. A breakdown of the sample include: 100 keep-fit exercisers, 100 professional athletes, 50 orthopaedic patients, 50 psychiatric outpatients, 200 normal group (100 males, 100 females). The normal group, i.e., those not categorized under the aforementioned groups, was selected from the general population. Systematic random sampling technique was further applied to select every three person that was approached. All participants were literate. The rationale for selection of participants was that they were likely to have more self-image concern than others.

3.1.4 Research Design

Survey design involving the use of 2 psychological test instruments was used in the test standardization study. The instruments were administered to a sample of 500 participants. *Correlation design* was employed for the test-retest analysis. The independent variable was time interval and the dependent variables were scores obtained with the test instruments.

3.1.5 Instruments

The following psychometric instruments were used in the Phase 1 study:

(1) Negative Self-image Inventory (NSII).

This is a 40-item test instrument developed and standardized in the study. It was used to measure symptoms and manifestations of negative self-image. Such symptoms include dissatisfaction with real or imagined defects in physical appearance as well as the associated behavioural, emotional, social and interpersonal factors that sustain a negative perception of self. Specifically, NSII taps into behavioural manifestations of negative self-image such as body-checking behaviours, self-monitoring anxieties, body-image dissatisfaction and social maladjustment behaviours. Cognitive and emotional dimensions include: self-image anxieties, poor self confidence and fear of negative evaluation. Each item is a self-descriptive statement which participants were required to respond to in a 6-point modified Likert-type format ranging from 6 (strongly agree) to 1 (strongly disagree), (See Appendix 2).

Scoring for NSII

Scores of NSII were obtained through direct and reverse scoring methods. Item 27 was reverse scored, by changing the numbers 1,2,3,4,5,6 to 6,5,4,3,2,1, while the remaining 39 items were direct scored. The final score was obtained by adding together values of direct and reverse scored items.

(2) Fear of Negative Evaluation (FNE)

The 30-item scale with a true-false response format was developed by Watson and Friend (1969) to measure fear of negative evaluation due to general anxiety, fear of losing social

approval and ineffective social behaviour. The reliability coefficient reported by Watson and Friend (1969) are: KR-20 = .94, and one month interval test-retest coefficient = .78. Using Nigerian sample, Odedeji (2004) obtained a concurrent validity coefficient of .63 with State Trait Anxiety Inventory Form Y-2 (Spielberger, 1983). See Appendix 3

Scoring for FNE

Scores of FNE were obtained by awarding 1 point to the following items shaded true: 2,3,5,7,9,11,13,14,17,19,20,22,24,25,28,29,30 and 1 point for the remaining items shaded false. Final score was obtained by adding together the values of both the true and false items. The scales are interpreted in such a way that the higher the scores of individuals, the higher the level of their fear of negative evaluation or negative self-image.

3.1.6: Procedure

The development and validation of Negative Self-Image Inventory (NSII) was carried out in 5 stages namely:

1) NSII item selection and analysis
2) Training of research assistants
3) Pilot study
4) Test Administration
5) Data Analysis

3.1.6.1 Training of Research Assistants

A total of 5 research assistants were employed for this phase. Specifically, the training entailed familiarization of the assistants with the study objectives. This involved psycho-

education on negative self-image and motivation for the study. The assistants were also enlightened on possible ethical issues that may arise on the field. And this included the need for confidentiality and a proper introduction of self and objectives of study. The need for improved interpersonal skills through facial and body language observation was also communicated. This skill is very important because, proper observation of the body gestures of the participant determines weather the research assistants should be more persuasive or diplomatic during the interaction.

Research materials were further provided. They include pen, pencil, eraser, and stapler to aid in filling out the psychological tests. Transparent files were also provided to protect the test instruments from rain. Initial contacts were also made by the researcher and letters of introduction obtained where necessary.

Specifically, the aim of the training was to facilitate an increased understanding of the study's objective and the study context; to familiarize the assistants with the methodology and the data collection tools as well as fine-tune interpersonal techniques.

3.1.6.2 NSII Item Selection and Analysis

The development of NSII started with item selection which was drawn from direct and indirect sources. The direct sources included personal interviews, participant observations, researcher's personal experiences, and collation of items from friends, colleagues and significant others. The indirect source included review of relevant literature and a content review of stories and adverts in the mass media. These processes resulted in 95 items at the initial item selection stage. The item editors, comprising the thesis supervisors, the

researcher, academic colleagues and neutral persons systematically reworked the items to prune them down from 95 to 66 on the basis of their face validity and content validity. The 66 items were administered to 30 participants in an initial pilot study. Difficult-to-understand items were dropped to reduce the scale to 48 items. Items that participants found to be ambiguous were rephrased and this led to some items appearing similar. The items were therefore streamlined and this brought the scale to 44 items. An inter item correlation was performed with Pearson Product Moment Statistic technique on the 44 items. The 4 items with weak coefficients were removed to bring NSII to 40 items.

3.1.6.3: Pilot Study

The 66 items were administered to 30 participants in the pilot study. Difficult-to-understand items were dropped to reduce the scale to 48 items. Items found participants ambiguous were rephrased and this brought the scale to 44 items. Inter item correlation was performed with Pearson Product Moment Statistic technique on the 44 items. The 4 items with weak coefficients were removed to bring NSII to 40 items.

3.1.6.4: Test Administration

NSII and Fear of Negative Evaluation (FNE) were administered by the researcher, with the help of 5 assistants, who had undergone formal training on the administration techniques. Test administration was generally conducted after establishing adequate rapport and with an assurance of confidentiality. Observations raised by the participants were also clarified. Participants were encouraged to respond honestly to the test item. NSII was administered concurrently with Fear of Negative Evaluation Scale (FNE), so as to determine its

concurrent validity. It was observed that the forms took approximately 9 minutes to complete.

NSII and FNE were initially administered to 560 participants, of which 532 were retrieved. It was observed that 22 were not properly filled. In order to match for gender, 10 of the test instruments were discarded bringing it to its present state of 500.

In order to obtain the test-retest reliability coefficients of the tests, NSII and FNE were further re-administered, two weeks after to 100 participants (50 males, 50 females) who also took part in the first administration.

3.1.6.5 Data Analysis

The statistical methods used in the standardization of NSII include, mean, standard deviation, t-test, Pearson Product Moment Correlation, Principal Component Factor Analysis with Iteration and Varimax Rotation, Kuder-Richardson Formula 20 and Cronbach Alpha.

3.2: Phase 2: Assessment and Management of Negative Self-Image

The goal of this phase of the study was to identify some psychological factors that are associated with negative self-image as well as determine the efficacy of Rational Emotive Behaviour Therapy (REBT) and Social Skill Training (Assertiveness Training) in the management of negative self-image. Negative Self Image Inventory (NSII) was designed specifically to be employed in this phase of study.

3.2.1 Study Location

Data for the study were collected from the following locations in the Lagos metropolis: Professional athletes from Atlantic Stars Football Club, Bar-Beach; Hard Kicks Karate Club Surulere; Milo Track and Field Training Center, Surulere; University of Lagos fitness center; Proflex Fitness World, Ikoyi, and Universal Fitness Center, Victoria Island. Data were also collected from Ward E2 (males) and Ward E1 (females) orthopaedic wards of the Lagos University Teaching Hospital (LUTH) Idi-Araba and National Orthopaedic Hospital, Igbobi. Also data were sourced from psychiatric out-patients of both Yaba Psychiatric Hospital and LUTH. Lastly those categorized as 'normal participants' comprised students, workers, parents were sampled from their schools, offices and homes.

3.2.2: Population

The target population were professional athletes, keep-fit exerciser, orthopaedic patients, psychiatric out-patients and 'normal population' that is, those not categorized under aforementioned groups. The study covers Nigerian participants aged 16-54 who were resident in Lagos metropolis. This scope is based on the fact that urban adults are more prone to manifesting negative self-image than others.

3.2.3: Sample Selection and Characteristics

The purposive sampling technique was used to select 400 participants, comprising 200 males and 200 females. Systematic random sampling technique was further applied to select every 3 person that was approached. All participants were literate.

A breakdown of the sample shows that there were 50 participants from each of the following groups: professional athletes, keep-fit exercisers, orthopaedic patients and psychiatric out-patients. Each group had 25 males and 25 females. The 200 normal participants comprised 100 males and 100 females. Orthopaedic respondents were made up of plastic surgery patients, those with lost or fractured limbs and are undergoing physiotherapy as well as those with burns, surgical operations or cancer patients. The normal participants were further constituted into low, medium and high negative self-image, depending on their scores on NSII scale. 30 participants from the 'normal group' that scored high on Negative Self-Image Inventory (NSII) were further subjected to psychological treatment groups of first treatment, second treatment (placebo) and control groups.

3.2.4: RESEARCH DESIGN

The following designs were employed for the second phase of this study:

1: ***Survey Design*** involving the use of 7 psychological test instruments. Test was initially administered to 460 participants, of which 435 was retrieved. It was observed that 27 of the test instruments were not properly filled. In order to match for gender, 8 of the test instruments were discarded bringing it to its present state of 400.

2: Experinmental Design

This was a pre-test-post-test design involving 3 conditions namely: 1st Treatment, 2 Treatment (Placebo) and Control group. The independent variable was psychotherapy and the dependent variables were scores obtained with the psychological instruments.

3: ***Statistical Design*** involves:

- A 2 X 3 ANOVA design. The independent variables are gender (males and females) and levels of Negative Self-Image: (Low, Medium, and High). The dependent variables are participants' reactions obtained with the following psychological instruments. NSII, ACL, ISE, PSE, IBQ, SMS and FNE.
- The second design is a 7 Group ANOVA design. The independent variables were the following groups: High, Low and Medium NSII groups, Orthopaedic, Keep-fit, Professional Athletes and Psychiatric groups. Dependent variables are responses from the 7 psychological instruments.

3.2.5: Instruments

Biographic Information Questionnaire, and the following set of psychometric tests were used in collecting data.

1. Negative Self-Image Inventory (NSII)
2. Fear of Negative Evaluation (FNE)
3. Index of Self Esteem (ISE)
4. Social Maladjustment Scale (SMS)
5. Physical Self Efficacy (PSE)
6. Illness Behaviour Questionnaire (IBQ)
7. Adjective Checklist (ACL)

8. Treatment Package

Biographic Information Questionnaire (BIQ)

This is used to obtain demographic information from the participants. They are: name, gender, age, marital status, educational qualification and specific categories reflecting the sub-groups of this study (orthopaedic patient, psychiatric out-patient and sport clubs). Others include information on frequency and reasons for participation in sporting activities. (Appendix 1)

1. ***Negative Self-Image Inventory (NSII)***

This is a 40-item test instrument developed in the study. It was designed to measure symptoms and manifestations of negative self-image. Such symptoms include dissatisfaction with real or imagined defects in physical appearance as well as the associated behavioural, emotional, social and interpersonal factors that sustain a negative perception of self. Specifically, NSII taps into behavioural manifestations of negative self-image such as body-checking behaviours, self monitoring, body-image dissatisfaction and social maladjustment behaviours. Cognitive and emotional dimensions include self-image anxieties, poor self confidence and fear of negative evaluation. Each item is a self-descriptive statement which participants were required to respond to in a 6-point modified Likert-type format ranging from 6 (strongly agree) to 1 (strongly disagree). See Appendix 2

Scoring: NSII

Scores were obtained through direct and reverse scoring method. Item 27 was reverse scored by changing the values of numbers 1, 2, 3, 4, 5, 6 to 6, 5, 4, 3, 2, 1 respectively,

while the remaining 39 items were direct scored. Final score of NSII was obtained by adding together values of direct and reverse scored items.

2. Fear of Negative Evaluation (FNE)

The 30-item scale with a true-false response format was developed by Watson and Friend (1969) to measure fear of negative evaluation due to general anxiety, fear of losing social approval and ineffective social behaviour. The reliability coefficient reported by Watson and Friend (1969) are: KR-20 = .94, and one month interval test-retest coefficient = .78. Using Nigerian sample, Odedeji (2004) obtained a concurrent validity coefficient of .63 with State Trait Anxiety Inventory Form Y-2 (Spielberger, 1983) (Appendix 3)

Scoring: FNE was scored by awarding one point to the following items shaded true: 2, 3, 5, 7, 9, 11, 13, 14, 17, 19, 20, 22, 24, 25, 28, 29, 30 and one point to the remaining items shaded false. Final score was obtained by adding together the values of both the true and false items.

3. Index of Self Esteem (ISE)

This is a 25-item inventory developed by Hudson (1982). It was designed to measure self-perceived and self-evaluative component of self-concept which is the sum total of the self-perceived and other-perceived views of the self, held by a person. The inventory is developed for individuals above 12 years of age. Hudson (1982) provided the original psychometric property for American samples, while Onighaiye (1996) provided the properties for Nigerian samples. Norms obtained were mean scores of 30 (male and females) for the American sample, while 30.89 (males) and 32.04 (females), were obtained

for Nigerian sample. Hudson (1982) obtained an alpha reliability coefficient of .93 and a two-hour test-retest coefficient of .92. Onighaiye (1996) also obtained the following coefficients of validity by correlating ISE with the stated tests: Concurrent validity with SCL-90 by Derogatis, Lipman and Covi (1973), in scale C – interpersonal sensitivity = .46; scale D – Depression = .38.

Interpretation: Scores higher than the norm (30.89 Males; 32.04 Females) indicate that the client have low self-esteem. Thus the lower the score is below the norm the higher the client's self-esteem. (See appendix 4).

Scoring: ISE scores were obtained through direct and reverse scoring of items. Direct scored items include: 1, 2, 8, 9, 10, 11, 12, 13, 16, 17, 19, 20 and 24. Reverse scored items include: 3, 4, 5, 6, 7, 14, 15, 18, 21, 22, 23 and 25. Overall scores were obtained by adding together the result of the direct scores and the reverse scores. Final score is thus obtained by subtracting 25 from the overall score.

4. Social Maladjustment Scale (SMS)

This is a 27-item inventory developed by Wiggins (1966). It was designed to measure inadequate social interaction, shyness, unassertiveness and a tendency to be reserved and reticent. Specifically, SMS was designed to measure those characteristics, which make an individual unable to adjust adequately to social situations because he or she is too self-conscious, introverted or lacks necessary social skills. Wiggins (1966; 1969) provided the original psychometric properties for American samples while the properties for Nigeria samples were provided by Adekunle (2002) and Bolaji (2002). Using University students, Wiggins obtained the mean scores of 11, 13, for males and females respectively, while

Bolaji and Adekunle obtained mean scores of 13.28, 13.58 for the males and females respectively. The Cronbach alpha internal consistency reliability coefficient reported by Wiggins (1969) is: .86 and .84 for males and females. The reliability coefficients obtained by Bolaji (2002) are: 21-day test-retest = .55; KR-20 = .45 and split-half = .81. Wiggins (1969) also obtained a concurrent validity coefficient of .899 by correlating SMS with MMPI scale 0 (social introversion). The concurrent validity coefficient obtained with Political Participation Scale (PPS) Gough et al (1951) is -.36, while that with Self-Efficacy Scale (SES) is -.24 (Adekunle, 2002), (See appendix 5)

Scoring: SMS: A score of 1 point is given for each expected response. The following are the expected responses for the marked items:

a. 1 point for each "T" marked in items: 1, 5, 6, 7, 8, 9, 10, 11, 14, 15, 19, 20 and 24.

b. 1 point for each "F" marked in items: 2, 3, 4, 12, 13, 16, 17, 18, 21, 22, 23, 25, 26, 27.

c. **Final Score:** The number of "T" and "F" correctly marked in the items were added together to obtain the total test score for SMS.

5. Physical Self-Efficacy Scale (PSE)

PSE is a 22-item inventory developed by Ryckman, Robins, Thorthon & Cantrell (1982). The purpose is to measure self-perceived physical competence, physical fitness, and feeling of well-being and wellness and physical self-concept. In other words, it measures the physical component of self-efficacy. The concept of self-efficacy is predicated on the assumption that an individual's deep-rooted expectation of his or her capabilities directly affects the cognitive, affective and the psychomotor components of the individual's

abilities, and the outcome of performance. Physical self-efficacy therefore refers to the psychomotor component of performance with specific emphasis on physical skills. PSE consists of three scales which are: PPA – Perceived Physical Ability, PSC – Perceived Self-Presentation and Confidence and PSE – Overall score on PSE.

Ryckman et al. (1982) provided the original psychometric properties for American samples, while Nworah (1999) provided the properties for Nigerian samples. Nworah (1999) reported the mean of 83.16, for athletes and 88.65, for non-athletes. Also means scores of 88.66 was obtained for Nigerian males, while 83.15 was obtained for the females. Cronbach Alpha reliability coefficients reported by Ryckman et al (1982) on PPA, PSC and PSE are .84, .74 and .81 respectively while the respective 6-week test-retest reliability coefficients are: .89, .69 and .80. Ryckman, et al., (1982) reported that PSE has a significant concurrent validity coefficient with the physical self-concept scale of Tennessee self-concept scale (Fitts, 1965). Nworah (1999) found that PSE significantly discriminated between athletes and non-athletes and using regression analysis, Nworah (1999) also found that the Somatization scale of SCL – 90 (Derogatis, Lipman and Covi 1977) contributed significantly to the variance of the PSE score for athletes (See appendix 6)

Scoring: PSE: There is direct and reverse scoring of the items. Direct score items includes: 1, 2, 4, 5, 6, 7, 8, 10, 12, 13, 15, 16, 18. Reverse score items included: 3, 9, 11, 14, 17, 19, 20, 21, 22.

The items for the scales are:

PPA: 1, 2, 4, 6, 8, 12, 13, 19, 21, 22.

PSC: 3, 5, 7, 9, 10, 11, 14, 15, 16, 17, 18, 20.

PSE: All the 22 items.

Final score: Add together the result of the direct and reverse score items for each of the scales to obtain the score for the particular scale.

6. Illness Behaviour Questionnaire (IBQ)

IBQ is a 62-item inventory developed by Pilowsky and Spence (1983). It has 8 sub-scales designed to measure those dimensions of attitude, belief and behaviour such as feelings, reactions and responses that an individual display to the self and others when ill. Specifically, IBQ measures self-perceived manifestation of physical and mental illness, somatization disorder (scales A+D), Hypochondriasis (scale C) and Conversion disorder (scale H). The sub-scale employed for this study is scale B: **Irritability**: Poor interpersonal relationship arising from angry and intolerant reactions to others. Pilowsky and Spence (1983) provided the original psychometric properties for Australian samples while Eriobu (1998); Nworah (1999); and Pimenta (1998) provided the properties for Nigerian sample. The norms reported for normal healthy Nigerian adults by Nworah (1999) ranged from 1.36 (Disease conviction) to 8.63 (General illness reaction) for males and 1.70 (irritability) to 8.73 (General Illness Reaction) for females.

Pilowsky and Spence (1983) reported 12-week test-retest reliability coefficients for the IBQ scales, ranging from .67 to -.85, while the 3-week coefficients reported by Adebakin (1990) ranged from -.02 to .28. Ofoche (1998), and Pimenta (1998) found that IBQ differentiated groups of patients with sickle-cell disorder and diabetes, respectively from normal non-patient groups in all the scales, with the patients obtaining significantly higher scores. Eriobu (1998) correlated IBQ scales with SCL-90R scales (Derogates et al., 1977)

and obtained a concurrent validity coefficients ranging from -.21 between IBQ (D) and SCL-90R (J, Neuroticism) to .14 between IBQ (B) and SCL-90R (G, Phobic Anxiety). The equivalent coefficients obtained by Adebakin (1990) between IBQ and STAI-Y2 by Spielberger et al. (1983) ranged from -.27 on scale G to .39 on scale E (See appendix 7).

Scoring: IBQ: The items were scored separately. For each of the items, a score of 1 point was given for the expected response. The following are the expected responses to the items in each of the scales.

Scale B

a. 1 point for each YES marked in items: 2, 3, 4, 5.

b. 1 point for each NO marked in item: 1

Final scores were obtained by adding together the numbers of YES and NO correctly marked in each section to obtain the score for the scale. Scores were then written by the side of the letters indicating the sections or scales.

7. Adjective Checklist (ACL)

This is a 300-item instrument developed by Gough and Heilbrum (1980), to assess 37 personality characteristics out of which the following subscale was employed in this study: Personal adjustment (scale 23) ***Scale 23: Personal Adjustment*** scale assesses feelings of lack of personal meaning in life. Positive adjectives are energetic, outgoing, enterprising, industrious, self-confident, etc. Negative adjectives are: awkward, shy, sulky, sensitive, pessimistic, narrow, worrying, etc. In the sample of males used to determine alpha reliabilities and factorial dimensions of Idea Self Scale, ISS and Personal Adjustment Scale

23 have a correlation of .56. Also, in the corresponding sample of females, the coefficient was .60. In general, ACL scales correlate very highly with each other (Gough and Heilbrum (1980) (See appendix 8)

Scoring: ACL: Hand scoring stencils were prepared for the scale. The indicative items were added up while the contradictory items were also added up and subtracted from the indicative items to obtain the raw score. Tables in the test manual were used to determine the "numbers checked" and also to convert the raw scores into standard T-scores. In all the tests, the higher the score, the more the participant manifested the characteristics of the particular test or sub-scale.

8: Treatment Package

Negative self-image was managed with Rational Emotive Behaviour Therapy (REBT), techniques and Social Skill training (Assertiveness training). Techniques include relaxation training, cognitive restructuring, cost-benefit analysis, psycho-education, role-playing, homework and diary-keeping. There were three management conditions: Experimental, Placebo and Control (no treatment). This was done to establish the effectiveness of the therapeutic technique used for this study. The management phase has 30 participants selected on the basis of their high scores on Negative Self-Image Inventory (NSII). This means that they presented high negative self-image. The 30 participants were assigned randomly into three groups of: 1st treatment, 2nd treatment (Placebo) and control groups of 10 participants each, comprising 5 males and 5 females. Collectively, the treatment sessions lasted 8 weeks. Therapy was in group therapy format, which gave room for

guidance, insight, acceptance, ventilation of feelings, instillation of hope, self-disclosure and interaction

3.2.6: Training of Research Assistants

A total of 5 research assistants were employed for this phase. Specifically, the training entailed familiarization of the assistants with the study objectives. This involves psycho-education on negative self-image and motivation for the study. The assistants were enlightened on possible ethical issues that may arise in the field. And these include, need for confidentiality and a proper introduction of self and objectives of study. Need for improved interpersonal skills through facial and body language observation was also communicated. This skill is very important because, proper observation of the body gestures of the participant determines weather the research assistants should be more persuasive or diplomatic during the interaction.

Research materials were provided. They include pen, pencil, eraser, and stapler to aid in filling out the psychological tests. Transparent files were also provided to protect the test instruments from rain. Initial contacts were also made by the researcher and letters of introduction obtained where necessary.

Specifically, the aim of the training was to facilitate an increased understanding of the study's objective and the study context; to familiarize the assistants with the methodology and the data collection tools as well as fine-tune interpersonal techniques.

3.2.7: Procedure

The second phase of this study was carried out in the following stages namely:

A. Pilot Study stage

B. Pre-management assessment stage.

C. Management stage.

D. Post-management assessment stage.

3.2.7.1: Pilot Study

The study started with the pilot study phase. This was carried out on 30 selected participants (15 males, 15 females), made up of athletes, keep-fit exercisers, orthopaedic clients and normal regular people, in the Lagos metropolis. The phase was carried out in order to ascertain the suitability and relevance of the tests. Test forms were initially arranged in the following order: BIQ, ISE, SMS, PSE, FNE, NSII, IBQ and ACL. It was observed that participants became tired and less interested after attending to the more simple ones stapled in front. This necessitated the re-arrangement of the test forms in the following order: BIQ, ACL, IBQ, NSII, PSE, SMS, FNE and ISE. This order was based on the number of items on each form and the difficulty level of the tests. The longer and the more difficult tests were administered first when participants' level of motivation was highest. At the end of the pilot study, it was observed that the forms took the participants an average of 45 minutes to complete and they confirmed that the test items were very interesting and unambiguous. Interestingly, most participants were very happy to have taken part in the research because the questions asked touched their hidden anxieties that related to their self-image. These findings therefore enabled the researcher to embark on the study with renewed confidence.

3.2.7.2: The Pre-Management Assessment Phase

The pre-treatment assessment phase was carried out with the help of 5 research assistants. Test instruments were administered to 460 participants in sports centers, hospitals, keep-fit houses, classrooms, hostels and other convenient places. This was done either individually or in groups. Tests were administered after an introduction of the researcher and her assistants and stating the purpose of the visit. Some gladly agreed to fill the test forms while those who were a bit hesitant, were persuaded to participate. However, some bluntly refused to participate for personal reasons. At the end of the assessment exercise, it was observed that 435 of the test instruments were retrieved. However 27 of the test instruments were not properly filled. In order to match for gender, 8 of the test instruments were discarded bringing it to its present state of 400.

3.2.7.3: Management Phase

There were three management conditions: 1st Experimental, 2nd Experimental (Placebo) and Control (no treatment). The management phase had 30 participants selected on the basis of their high scores on Negative Self-Image Inventory (NSII). The 30 participants were assigned randomly into three groups of: 1st treatment, 2nd treatment and control groups of 10 participants each, comprising 5 males and 5 females.

i: 1st Experimental Group

The group had 10 participants (5 males and 5 females). The sitting arrangement was in a semi-circular form in order to ensure that all participants were able to see one another. This gave all participants an equal opportunity to observe each other's body language and facial expressions. It also encouraged them to appreciate the universality of the emotional

difficulties and to communicate effectively. The venue, which was the facilitator's study room, was conducive for work because it was spacious, airy and well lit with comfortable cushion seats. The window blinds also provided adequate privacy. The duration of therapy was 45 minutes. The agreed time for therapy was in the evenings. This time was preferred because most of the participants had other engagements during the day. There were 10 sessions altogether with two sessions per week, but sessions 7, 8 and 9 were conducted once a week while the final and 10th session was after a period of two weeks, to give room for therapy consolidation. Collectively, the treatment sessions lasted 8 weeks. Therapy was in group therapy format, which gave room for guidance, insight, acceptance, and ventilation of feelings, instillation of hope, self-disclosure and interaction. Group maintenance functions performed by the facilitator (researcher) were problem setting, goal setting, process moderation, sentiment testing, monitoring, idea development, etc. All participants were drawn from the normal high negative self-image group. The participants were a mixture of young and older adults that presented with different levels of self-image anxieties based on their scores on NSII. Treatment package involved Rational Emotive Behaviour Therapy techniques and Assertiveness training.

Session 1

The session started with a general introduction of participants which aided group interaction and cohesiveness. Next was explanation on how group members were picked. They were told that they were picked on the basis of their high score on NSII. This means that the scores above 90.6 which is the mean score for NSII. Thus score higher than the mean score is an indicative of negative self-image.

This was followed by relevant discussions on the frequency and duration of therapy. Explanation on some basic rules on how group therapy works was also communicated to group members. The rules were attendance, active participation in the group, punctuality and confidentiality of the group exercises. The reason and function of therapy as well as different treatment techniques such as relaxation training, role-playing, cognitive restructuring, assertiveness training, homework and diary keeping were explained. The facilitator (researcher) further provided basic information about negative self-image and the psychology of physical appearance. Evaluation of motivation and expectations regarding the treatment programme, drawing similarities to other techniques participants might have used formally to deal with their symptoms were made. Participants were made to understand that with the use of self-management techniques in a systematic way, by a professional, clients have greater probability of overcoming self-image difficulties. Exercises for this session was relaxation training (diaphragmatic breathing) As homework, participants were encouraged to keep a diary on developmental history of negative self-image using the following format; early childhood (4-7), Later childhood (before puberty), early adolescence, later adolescence, early adulthood, the present. Practice of relaxation exercise at home was also encouraged.

Session 2

Session 2 continued with relaxation training exercise (Diaphragmatic breathing exercises) with subtle improvement noted. Next was review of homework on developmental history of appearance concerns. Highlights were: reports on developmental history of self-image concerns which ranged from early childhood (2 participants), late childhood (2 participants), early adolescence (4 participants), late adolescence (1 participant), and early

adulthood (1 participant). Next was psycho-education on the non-behavioural, genetic and physiological causes of self-image concerns. Observations of conscious and unconscious behaviours of participants and drawing their attention to them were made. Examples include: keeping hand over mouth when talking, scratching the back of the neck when anxious, dressing or sitting in a particular way to cover a certain part of the body. Next was introduction of certain molecular components of social skill training such as appropriate use of facial expression and body language, gesture, posture, voice volume etc, to tackle self-defeating behaviours. Participants were further assisted to draw up lists of appearance complaints, and the location of the defect and the meanings given to them. This exercise enabled participants to realize that the meaning given to appearance complaints could be a window into a dysfunctional self-image and consequently could be helpful in treatment. For homework, group members were encouraged to draw up more comprehensive list of appearance complaints, taking note of both the visible and imagined ones.

Session 3

Session 3 continued with relaxation exercises. Improvement on the exercise regime was noted as participants needed minimal instruction from the facilitator. Next was review of homework, on list of appearance complaints, both visible and imagined. Review of the list indicated appearance-related concerns such as brown teeth, big teeth, thin legs, scanty hair, rough skin, big nose, body weight, eye colour and big stomach. This triggered a healthy argument on real/imagined defects in physical appearance among the participants. The facilitator further helped members of the group to create a hierarchy of body parts from the most satisfying to the most distressing ones. Practice on how to keep a self-monitoring diary i.e., record any situation that provokes self-consciousness about appearance and the

effect of these on mood and behaviour was also introduced. Next was analysis of self-image dissatisfaction in ABC sequence. Example: A – Activating event (situation that triggers self consciousness), B – Belief (thoughts about the situation on self), C – Consequences (outcome of the situation or emotional and behavioural reactions). For homework, group members were encouraged to practice self-monitoring exercises using ABC format as well as mirror exposure at home, first clothed and then unclothed.

Session 4

Session 4 started with a review of homework on "practice of self-monitoring" exercises. Highlights were: inability to genuinely accept appearance-related complements, public speaking anxiety due to fear of negative evaluation and dating anxiety. The following are examples provided by a male participant:

A – Activating event – 'I have a big nose'

B – Evaluative belief – 'Because I have a big nose, I am not attractive'

C – Emotional and behavioural consequences – 'I am very uncomfortable, my friends call me 'oxygen consumer', I think this is very rude, I feel uncomfortable'

Next was the identification of maladaptive assumptions/beliefs about appearance and tackling maladaptive beliefs on self-image with thought disputation, cognitive restructuring and cost benefit analysis. Tabulation of body checking behaviours, such as frequent mirror-checking behavious, the habit of trying on several outfits, weighing self frequently was also practiced. Group members were further trained on how to use self-management technique to reduce checking behaviours. Examples include leaving home without a makeup kit,

refraining from inspecting body defects or seeking reassurance from others. For homework, group members were encouraged to practice the behavioural avoidance test. Here group members were encouraged to measure the amount of time and the ability to resist body-checking behaviour. (Here participant could measure the time he or she viewed self in the mirror while refraining from adjusting makeup or clothing). Relaxation exercises and mirror exposure also continued.

Session 5

The session started with a review of homework on behavioural avoidance/body-checking behaviour. The following were highlights of the homework:

> Participant A (Female) – *'I could not resist retouching my make-up every three hours'*
>
> Participant B (Male) – *'I resisted from adjusting my tie, suit and shirt throughout the day, nobody noticed. I felt comfortable'*
>
> Participant C (Female) – *'I sat at the front of the class today, I felt less self-conscious of my body weight and people appeared friendly too'*
>
> Participant D (Male) – *'I could not resist brushing my hair at every hour'*

Cost-benefit analysis was introduced and this entailed asking participants the actual effect of not frequently adjusting self in the mirror or weighing self as compared with the prediction they feared. For example, they discovered that people treated them no differently even though they refrained from checking and adjusting self frequently. Thought disputation was further introduced to aid in tackling repetitive intrusive thoughts of self-

image dissatisfaction and social anxiety. Next was practice of neutral self-talk. For example, instead of calling head 'ugly and peer shaped', it could be referred to as 'oval and normal' shaped. (Argument about the reality of the defect was avoided but instead elimination of negative body talk that caused distress was stressed). Role-playing was also introduced with a focuse on negative body talk. This was geared towards playing out and constructing objective and flexible descriptions of the self-image. Specifically, two participants (male and female) engaged in a spontaneous role playing exercise with other group members as audience. For example:

Participant A*: "My legs are thin and my friends referred to it as 'mosquito' leg"*

Participant B: "Your legs are fine, I think they are slim and straight (hot legs)"

The above triggered a healthy argument among the group members, which resulted in an informal and friendly assessment of size and shape of legs. Therapeutic factors that emerged from the exercise therefore include: universality (recognition of shared experiences), altruism, instillation of hope, cohesiveness, catharsis, self understanding and interpersonal learning (Yalom & Leszcz, 2005).

Participants were further encouraged to refrain from looking at defects with self to explain negative attitude from others. Such stereotype should be recognized as an ignorant treatment of the entire segment of the society. Social skill training (assertiveness training) was introduced to equip participants with skills necessary for proper and positive ventilation of feeling. This further aided the next homework

For homework, participants were encouraged to practice viewing self in more public places such as store windows and so on, after the mirror exposure at home. This is based on the assumption that seeing oneself in a public context is more challenging. The second homework was on reality testing and real life exposure. These involved standing or sitting close to people, allowing eye contact and asserting self positively. Participants were also encouraged to keep a self monitoring data to monitor avoidance habit which included those experienced in social and public places, clothing, physical activities, touching of the body and being consciousness of personal space.

Session 6

The session started with the review of homework, specifically, on avoidance habits. The following were highlights from participant's dairy:

> *Ability to go shopping without a bandana; (this participant is uncomfortable with her hair, which she described as scanty and ugly. Behavioural consequence was a constant use of bandana to cover her hair); an improvement on self-monitoring exercises was also observed among group members.*

Next was the identification of avoidance habits. The assumption that avoidance habits perpetuate the self- image disorder, because clients never had the opportunity to extinguish anxiety response to triggering stimuli was stressed. To tackle self-defeating thoughts, participants were encouraged to comment and discuss the situation in which body dissatisfaction occurred. Diary keeping exercise was further introduced as this was geared

towards helping participants trace the negative self-talk to other talk about the situation or assumptions about importance of the appearance. (Questions like, 'what was upsetting about the shape and size of your nose'?), were asked.

Cognitive restructuring and cost-benefit analysis were introduced next. Here participants were encouraged to discuss the evidence for and against the belief in negative self-image and to question the evidence rather than the belief itself. Social skill training was introduced to highlight the differences among assertiveness, non-assertiveness and aggressive behaviours. As homework, participants were encouraged to use bi-dimensional model of assertiveness to draw up four response styles to different threatening interpersonal situations. (Assertion, non-assertion, aggressive and passive aggressive responses).

Session 7

The session continued with review of homework on response styles that occurred in interpersonal situation. The following were highlight of the homework:

> Participant A: (Female) "*A friend actually called me 'desert hair', my initial response was to give a disapproving look and just walk away: (*passive aggressive response style*), but I changed my mind. I told her that people are born differently, some inherit full thick hair while some do not, but the most important aspect is to accept the way we are. I felt good (*she wrote*) I think I applied an assertive response style".*

Participant B: (Male) *"I was angry when I was referred to as 'Mr Ape' by a friend, but I told him that I looked more masculine than him, indirectly telling him that he looked like a girl" (Assertive/aggressive style)".*

Group members scrutinized the response styles and suggested other healthier methods of handling such social situations, while the facilitator closely observed the group dynamics. The facilitator also encouraged the less active group members to participate fully in the group discussions. Social skill training was introduced next to aid practice of genuinely accepting compliments, the use of 'I' i.e., making personal statements instead of generalized statements or the use of 'WE'. For the role-playing technique, group members asked and answered questions about assumptions (example: how important is your looks compared to other characteristics? Has changing your looks always led to feeling better about appearance?).

Next was changing the ABC format of Rational Emotive Behaviour Therapy to ABCDE, in order to develop alternative self-statements that reflected the self-image situations more accurately. Highlights include:

A - Activating event: *'My teeth is brown'*

B – Belief about the situation or self: *'I believe that I am ugly'*

C – Consequences: *'I feel very sad and awkward at social settings'.*

D – Thought Disputation: *'Is my teeth really brown'?*

E – New and rational outlook accompanied by behavioural and emotional changes: Here, group members were encouraged to come up with alternatives, disputing

thoughts to correct beliefs identified as being unreasonable. Alternatives options identified were *self acceptance, thought stopping and improved social skill.*

As homework, group members were asked to rate believability (of negative self-image related thought disputation and self acceptance) on a 0 – 100 scale next to the disputing of thought in their diary.

Session 8

The session continued with the review of homework on believability rating. Highlights observed were believability ratings which ranged from 50 (moderate) to 80 (high). The cost and benefit of such rating as they relate to self-acceptance were analysed. Next was review of distorted perception of appearance discrepancy about actual appearance and client's mental picture of self. Variables reviewed were body weight, big stomach, breast size and shape. Psycho-educating on the causes and manifestations of discrepancies about actual appearance and clients' mental picture of self were introduced. Role playing was further introduced to tackle client's distorted attitudes rather than distorted perception and also to help build client's tolerance on admitting physical imperfection and challenging the perceived implication of the defect. The need to consciously reduce the importance of characteristics in which participants are judged was also stressed. Next was the introduction of assertiveness training, thought stopping and cognitive restructuring, to enable participants learn more self-enhancing ways of responding to stereotypes, teasing, ridicule and stares from others. Role playing was briefly introduced to enable participants practice replacing negative social behaviour with more positive ones. Group members were reminded of the termination of therapy while homework was on practice of assertiveness

and cognitive restructuring. Group members were also encouraged to keep a diary on the positive effect of corrective thinking.

Session 9

The session continued with the review of homework on assertiveness training and cognitive restructuring. Improvement on self assertiveness, self acceptance and cognitive restructuring were noted. Next was tackling of unfinished businesses and other situations that might trigger relapse. Issue of relapse was discussed and the need for flexibility and positive thinking was stressed. Homework included positive effects of corrective thinking, assertiveness training and other unfinished businesses. Termination of therapy reminder was also made.

Session 10

The session started with review of homework and as well an assessment of gains of therapy and post assessment exercises. Parting words on sustaining the positive effects of therapy was relayed. Therapy sessions ended with light refreshment and good wishes.

ii: 2nd Experimental Group

The group comprised 10 male and female participants randomly drawn from the group that scored high on Negative Self-Image Inventory. The treatment was conducted in a comfortable room provided by the Redeemed Christian Church of God, Victoria Island, in order to ensure that the first and second experimental groups did not meet to exchange information capable of adversely affecting the outcome of the results. The sitting arrangement was just like the first treated group. The agreed days were Tuesdays and

Saturdays from 4.00pm to 4.45pm. The 10 sessions in a period of eight weeks were conducted just like the 1st treated group. The sessions were devoted to discussing current affairs and challenges of life in Nigeria, so that they have no direct bearing on issues of negative self-image. Participants were told that such group discussions formed part of a focus group study on the challenges of life in an era of social and economic reforms in Nigeria. This approach, otherwise called placebo management was designed to verify the claim that psychological disorders would be relived by mere group interactions that did not involve specific psychological therapeutic techniques. Below is detailed account of the exercise.

Session 1

This session started with an exchange of pleasantries and a formal introduction of participants. Reason for group interaction was also communicated. Reason given was that the participants were part of focus group discussion on social reforms in Nigeria. Naturally, the discussion started on a lighter note with a social problem most felt by all; the issue of very poor power supply in Nigeria. The water sector was another example raised and its problems as well as probable solutions were proffered. Session one however ended on an exciting note, while participants, as homework were encouraged to identify other social/economic issues that needed urgent reforms.

Session 2

Session 2 started after the usual exchange of pleasantries and an encouragement for less active group members to participate fully in the discussion. The more active ones were also asked to accommodate the opinion of the other participants. Issue on the power sector

reform was briefly deliberated upon and this naturally led to another discussion on the civil service reform in Nigeria. The anxiety surrounding forced retrenchment and the forced ejection of civil servants from their residence formed another heated argument. Participants were then encouraged to take more interest in the daily news and also be more aware of social and economic events in the country.

Session 3

Discussion on the banking sector reform was at the forefront of session 3. Participants deliberated on the 25 billion Naira ceiling point and the emerging trend of banks merging in order to achieve such expectation. The rising cost of living in Nigeria also formed another round of discussing, while participants blamed the trend on the incessant increase of Fuel, Diesel, Kerosene and Gas prices. Their effect on the prices of food and household items was analyzed. The exchange rate was also reviewed and thus confirmed the steady decline of Naira in the international market.

Session 4

The image of the Nigerian Police formed the initial discussion of this session. The next discussion was on the menace of touts commonly referred to as area boy and girls. The possibilities of such touts graduating to political tugs were also analyzed.

Session 5

This session continued with a brief review of the trend of discussion so far. Such social issues discussed so far ranged from poor electricity and water supply, civil service reform. The image of the Nigerian police and the menace of area boy and girls in Nigeria were

further analysed. Next was an observation on the garbage heaps around Lagos, which all believed was caused by ineffective government officials in charge of such duties. The need for a better culture of cleanliness and attitude change on the part of the citizens was however stressed. Different diseases associated with such dirty environment as well as the high cost of medical care and the mortality rate of children less than five years, were deliberated upon.

Session 6

The sexual practices of the youth as well as the HIV/AIDS prevalence rate in Nigeria formed the initial discussion of this session. Different adverts aimed at sensitizing for safer sex and other risky practices were also scrutinized. The stigma associated with HIV/AIDS was also reviewed. At this point, the facilitator introduced the case of a very interesting group of people who were often stigmatized by the society. They are the mentally retarded individuals as well as psychiatric patients. The cultural belief and stigma associated with this form of illness were discussed while participants affirmed limited knowledge about mental illness. It was observed that the increasing number of psychiatric clients found all over the streets is an indication that the state and the extended family seemed to have overlooked the plight of this group of people.

Session 7

Session 7 started with a brief review of the previous discussions. This was closely followed with the discussion of poor state of roads in Nigeria. Participants however believed that these were the result of the poor maintenance culture of the relevant officials, street trading and unruly behavior of motorists and pedestrians. It was observed that most people were

always late for appointment because of the familiar traffic jam in the cities, which could be very upsetting. Group members were encouraged to relax by tuning in to nice music anytime they are held up in a traffic jam.

Session 8

This session started with a review of previous discussions especially those that bothered on traffic situation in Lagos, poor traffic management and bad roads. Participants were reminded of the oncoming termination of the group discussions and were also encouraged to come up with unfinished businesses.

Session 9

This session presented a review of all previous issues discussed as these aided the identification of unfinished businesses. It was observed that the trend of the discussion gradually shifted from social reforms to attitude change. Other unfinished businesses like poverty, unemployment rate were also assessed. The session ended with a reminder of the termination of the group discussion.

Session 10

This session started with a general review of trend of discussions. Discussion ended with good wishes, light refreshment and post assessment exercise.

iii: Control Group

The Control group comprised 10 male and female participants randomly drawn from the group that obtained high scores on Negative Self-Image Inventory. They did not participate in the type of treatment procedures conducted for the first and second groups. They were

informed that the researcher had gone for further field studies and would return to re-administer the test instruments. The researcher contacted them again after eight weeks for another assessment. They all responded to the instrument again. They were thanked for being part of the study and assured utmost confidentiality.

3.2.7.4: Post Management Assessment Phase

The 7 test instruments were re-administered to all the three groups: 1st experimental, 2nd experimental (placebo) and control group. In this phase, the same procedure was followed as in pre-management assessment phase. Participants were thanked for being part of the study and were assured utmost confidentiality.

3.2.8: Debriefing of Control Group

At the end of the post-treatment assessment phase, the members of both the 2nd experimental and control groups were debriefed in a session, immediately after the management sessions. This entailed giving them an in-depth insight into the nature of negative self-image. They were also given tips on how to cope with and manage negative self-image in the course of day to day living.

3.2.9 Data Analysis

Apart from the statistical methods described in the test development and validation phase, data in the second phase of the study were also analyzed with the following statistics: mean, SD, t test, Pearson Product-Moment Statistical method, One-way ANOVA for the comparison of scores of three or more groups, Scheffe test for post hoc pair comparison and Multiple Regression Analysis.

CHAPTER FOUR

4.0: RESULT

In order to enhance clarity in the presentation of the results, the outcome of the various statistical analyses performed for the Phase 1: Development and standardization of Negative Self-Image Inventory (NSII) and Phase 2: Assessment and Management of negative self-image; are presented separately.

4.1 The Development and Standardization of NSII

The following psychometric properties were obtained for NSII

4.1.1 Norm:

The normative scores of the tests were obtained by computing the mean scores and standard deviations for the 500 participants (250 males and 250 females). The result is presented in Table 1.

Table 1: NSII and FNE Norms for Males and Females

Groups	NSII		FNE	
	Mean	SD	Mean	SD
Males (n=250)	88.04	25.59	13.20	5.32
Females (n=250)	93.12	26.86	13.55	5.47
M&F (n = 500)	90.58	26.32	13.37	5.39

Table 1 showed that females have higher manifestation of both Negative self-image as measured by Negative Self-Image Inventory (NSII), with means score of 93.12. The female group also obtained higher mean score on Fear of negative evaluation (FNE), with score of

13.55. Mean scores for males were 88.04 for NSII and 13.20 for FNE. Overall mean score for both male and females were 90.58 for NSII and 13.37 for FNE. Thus, norm score of 90.58 and above for both males and females on NSII is an indicative of negative self-image.

4.1.2 Reliability

Pearson Product-Moment Statistical Method was used to obtain the 14-day test-retest, and split-half reliability coefficients of NSII, while Cronbach alpha was used to obtain its internal consistency reliability coefficient. The result is presented in Table 2.

Testing Hypothesis 1: *There would be positive and high correlations between test-retest and split-half scores of the participants in NSII indicating its reliability*

Table 2: Reliability Coefficients of NSII

Type	R
14-day test-retest	.82
Split-half	.78
Cranbach alpha	.82

Table 2 showed that NSII had internal consistency alpha coefficient of .82, split-half of .78 and an equally strong two week test-retest reliability coefficient of .82. Result therefore confirms hypothesis 1.

4.1.3 Validity

In order to obtain the concurrent validity of NSII, the scores on NSII were correlated with those of FNE using Pearson Product-Moment Statistics. The result is presented in Table 3 below.

Testing Hypothesis 2: *Participants' score in NSII would correlate positively with their scores in Fear of Negative Evaluation (FNE), thus indicating the validity of NSII*

Table 3: Correlation Matrix of NSII and FNE

Measures	NSII	FNE
NSII	1	
FNE	0.51**	1

** Significant at P < .05, df, 498, r = .195

Result in Table 3 showed significant concurrent validity coefficients of the 2 clinical measures. The concurrent validity coefficient obtained was .51 which is significant at P = <.05. This result confirms hypotheses 2.

Construct validity

In order to determine the factorial structure of NSII, which is an aspect of construct validity, Factor analysis, Principal Component and a direct varimax rotation were used (Brace, Kemp & Snelger, 2006). However, in order to obtain information about the factorability of the data, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bertlett's test of spericity were computed. The result obtained was: .71 and a chi square of 1779.31, df = 780, at P. < .05 respectively. Thus, as a measure of factorability, KMO values of .60 and above are acceptable (Brace et al., 2006). The obtained value of .71 is thus greater than .60, an indication that it is above the acceptable value, and also significant.

A further factor analysis with iteration was used to factor analyze the scores of the 500 participants. The result is presented in Table 4.

Table 4: Initial Eigenvalues of the Extracted Components

Factors	Eigenvalues	% of Variance	Cumulative %
1	8.32	20.81	20.81
2	3.67	6.67	20.48
3	2.29	5.74	33.22
4	2.20	5.40	38.71
5	1.96	4.89	43.60
6	1.87	4.66	48.27
7	1.68	4.20	52.47
8	1.58	3.95	56.41
9	1.36	3.41	59.82
10	1.25	3.12	62.95
11	1.21	3.03	65.97
12	1.48	2.87	68.84
13	1.03	2.57	71.41

The result in Table 4 showed that 13 Factors with eigenvalues greater that 1 were extracted and they accounted for a total of 71.41% cumulative variance. Kaiser's criterion stated that only factors having latent roots greater than 1 are considered, since factors less than 1 would add nothing to the data (Child, 1979). The first factor had an eigenvalue of 8.32 and a variance of 20.81% while the values for the last factor were 1.03 and 2.57% respectively. The items that loaded in each of the factors and their communalities are presented in Table 5.

Table 5: Items, Communalities and their Factor Loadings

Item No.	Communalities		Factors											
		1	2	3	4	5	6	7	8	9	10	11	12	13
1	0.74								0.58					
2	0.84									0.86				
3	0.64					0.46								
4	0.77									0.78				
5	0.70											0.78		
6	0.72		0.56											
7	0.68					0.57								
8	0.74								0.66					
9	0.65					0.46								
10	0.58										0.54			
11	0.65		0.65											
12	0.71			0.69										
13	0.66								0.41					
14	0.72		0.66											
15	0.66								0.66					
16	0.75			0.77										
17	0.81		0.70											
18	0.68					0.70								
19	0.79				0.75									
20	0.80		0.67											
21	0.82				0.70									
22	0.70	0.77												
23	0.79					0.65								
24	0.82			0.73										
25	0.73							0.78						
26	0.62			0.43										
27	0.73							0.75						
28	0.68													0.74
29	0.68						0.41							
30	0.84	0.74												
31	0.80				0.77									
32	0.67	0.45												
33	0.55						0.67							
34	0.61	0.51												
35	0.62	0.59												
36	0.80												0.82	
37	0.73	0.51												
38	0.78										0.73			
39	0.72			0.46										
40	0.63	0.55												

The result in Table 5 showed that 7 items loaded significantly in factor 1; 5 each in factors 2 and 3; 3 in factor 4 and 5 items in factor 5. Factors 6 and 7 each had 2 items

loaded on them; 4 items were loaded in factor 8; 2 in factors 9 and 10, and 1 each in factors 11, 12 and 13 respectively.

In order to appropriately name the components extracted, the items were arranged in descending order of loading in each factor. The result is presented in table 6.

Table 6: Name, Extracted Factor and Items that load on them

S/N	Item No.	Item Name	Factor Loading	Factor Name
1	32	People think I look older than my age	.45	Body-image anxiety
	34	I feel jealous of people I think are better than me	.51	
	37	My appearance makes me avoid public places	.51	
	40	People think I am quiet and timid	.55	
	35	I wish my skin was smooth	.59	
	30	I believe my ears are ugly	.74	
	22	I feel that my buttocks are fat and shapeless	.77	
2	6	People think I have an unpleasant odour	.56	Poor self-confidence
	11	My shoulders are not as broad as I want	.65	
	14	I believe that my head is too big/small	.66	
	20	I don't like my cheeks	.67	
	17	I believe I lack self-confidence	.70	
3	26	My baldness bothers me	.43	Social awkwardness
	39	I believe people don't respect me	.46	
	12	I feel that my face is not attractive	.69	
	24	I am not satisfied with the shape of my eye	.73	
	16	I feel I cannot go for certain jobs	.77	
4	21	People think I am old fashioned	.70	Complexion dissatisfaction
	19	I want to tone-up my complexion	.75	
	31	I would like to change the colour of my hair	.77	
5	3	I feel intimidated when I am with beautiful people	.46	Self consciousness
	9	I feel embarrassed about my height	.46	
	7	I will like to go for plastic surgery	.57	
	23	I feel uncomfortable among learned people	.65	
	18	I have physical defects that I try to hide	.70	
6	29	My thighs are too heavy/thick	.41	Embarrassment
	33	I wish I am part of another race	.67	
7	27	I have the nicest lips around	.75	Self monitoring/ Admiration
	25	I love looking at myself in the mirror	.78	
8	13	I like reading newspaper health columns	.41	Body-checking Behaviour
	1	I weigh myself every now and then	.58	
	8	My breasts are too small/big	.66	
	15	I don't like the acne/pimples on my face	.66	
9	4	I am too fat/thin	.78	Fixation with stomach/body size
	2	I believe my stomach is big	.86	
10	10	I often avoid close physical contact with people	.54	Poor personal space
	38	I am not satisfied with the shape of my neck	.73	
11	5	I believe that people talk behind my back	.78	Fear of negative evaluation
12	36	I sometimes diet to remain in shape	.82	Dieting
13	28	I am not satisfied with the shape/colour of my teeth	.74	Dentition dissatisfaction

4.2: Result: Phase 2 - Assessment and Management of Negative Self-Image

In order to identify the psychological factors associated with negative self-image, Pearson Product Moment Correlation was computed. The result is presented in Table 7.

Testing Hypothesis 3: *Their would be significant and positive correlations between negative self-image (NSII) on the one hand, and Social Maladjustment behaviour (SMS), Fear of Negative Evaluation (FNE) and irritability*

Table 7: Correlation Matrix of the 8 Clinical Measures.

Measures	NSII	FNE	SMS	ISE	PSC	PPA	IBQ B	ACL 23
Negative Self-Image Invent. (NSII)	1							
Fear of Negative Evaluation (FNE)	.22*	1						
Social Maladjustment Scale (SMS)	.14*	.16*	1					
Index pf Self-Esteem (ISE)	.35*	.30*	.23*	1				
Perceived Self-Pre.and confidence (PSC)	-.28*	-.09	-.03	.28*	1			
Perceived Physical Ability (PPA)	-.17*	-.14*	-.10	-.32*	.24*	1		
Irritability (IBQ scale B)	.28*	-.16*	-.06	.39*	-.17*	.21*	1	
Personal Adjustment (ACL scale 23)	-.19*	.05	.16*	-.19*	.14*	-.21*	.15*	1

Note: * Significant at $P < .05$, $df = 398$, $r = .14$

The result in table 7 showed 23 significant correlations comprising 14 positive correlations and 9 negative. Specifically, NSII had a significant positive relationship with 4 of the scales namely: Fear of Negative Evaluation (FNE), Social Maladjusted Scale (SMS), Index of Self-Esteem (ISE) and irritability. Also it had significant negative relationship with the following 3 scale: Perceived Physical Ability (PPA), Perceived Self Presentation and Confidence (PSC) and Personal Adjustment. Therefore hypothesis 3

which states that: *their would be significant and positive correlations between negative self-image (NSII) on the one hand, and Social Maladjustment behaviour (SMS), Fear of Negative Evaluation (FNE) and irritability* was accepted

In order to determine the influence of gender on negative self-image and associated characteristics, the Mean, Standard Deviations and t test of the 200 males and 200 females were computed. The result is presented in Table 8.

Testing Hypothesis 4: *the levels of negative self-image and psychological distress would be significantly higher in females than in males.*

Table 8: Mean, SD and t test scores of male and female groups on the 8 measures.

Measures	Males N =200		Females n = 200		
	Mean	SD	Mean	SD	t-test
Negative Self-Image Inventory (NSII)	89.02	26.89	94.11	27.85	1.86
Fear of Negative Evaluation (FNE)	13.71	4.81	13.43	5.01	0.57
Social Maladjustment Scale (SMS)	12.50	2.80	12.23	3.12	0.90
Index of Self Esteem (ISE)	35.15	12.66	31.84	14.30	2.45*
Perceived Physical Ability (PPA)	38.06	6.86	36.53	7.12	2.19*
Perceived Self Presentation and Confidence (PSC)	45.51	8.30	45.98	7.71	0.60
Personal Adjustment (ACL Scale 23)	48.82	9.67	47.94	8.89	0.95
Irritability (IBQ Scale B)	1.57	1.21	1.31	1.27	2.07*

Note: Significant *, P. $< .05$, df = 399, Critical t = 1.96

The result in Table 8 showed that the female group obtained higher mean scores in Negative Self Image Inventory (NSII) and Perceived Self Presentation and Confidence (PSC), than the male group. The male group however obtained higher means scores on

the following measures: Fear of Negative Evaluation (FNE), Social Maladjustment Scale (SMS), Index of Self Esteem (ISE), Perceived Physical Ability (PPA), personal adjustment and Irritability.

In order to determine if the differences observed are statistically significant, the t independent test was used to analyze the data. The result is presented in the last column of Table 8.

The result showed that NSII was not significant at ($P < .05$, df = 399, Criticat t = 1.96). However the following measures were significant: IBQ scale B (Irritability), Perceived Physical Ability (PPA) and Index of Self Esteem (ISE), ($P < .05$, df = 399, critical t =1.96). This result did not support hypothesis 4 that states that: *the levels of negative self-image and psychological distress would be significantly higher in females than in males.*

To determine the comparative influence of the protective correlates of negative self-image, the mean (X) and standard deviation (SD) of each of the 3 normal NSII groups, that is, high, medium and low NSII groups were computed on each of the protective correlates. The result is presented in table 9 below.

Testing Hypothesis 5 (Tables 9, 10, 11): *The low NSII group will record significantly higher scores in the protective correlates of negative self-image, than the medium and high NSII groups.*

Table 9: Mean and SD of the 3 NSII Groups on the Protective Correlates of Negative Self-Image

Measures	Low (n=50)		Medium (n=50)		High (n=50)	
	Mean	SD	Mean	SD	Mean	SD
Negative Self-Image Inventory (NSII)	61.28	6.88	85.76	5.45	133.04	22.61
Perceived Physical Ability (PPA)	38.10	7.80	37.22	6.60	35.32	5.96
Perceived Self Presentation and Confidence (PSC)	50.36	9.47	48.16	8.541	42.52	6.64
Personal Adjustment (ACL scale 23)	50.02	9.94	48.78	10.45	44.22	10.28

The result in Table 9 showed that the high NSII groups obtained lowest mean scores in 3 of the protective correlates of negative self-image. Specifically, high NSII groups obtained low scores on the following: Perceived Physical Ability (PPA), Perceived Self Presentation and Confidence (PSC) and Personal adjustment. However, the low NSII groups recorded highest mean scores in 3 of the protective correlates of negative self-image. They are: Perceived Physical Ability (PPA), Perceived Self Presentation and Confidence (PSC) and Personal Adjustment. The low NSII group also obtained lowest mean score on Negative Self-Image Inventory (NSII). This scale formed the basis for differentiating the groups.

In order to find out if the observed differences in Table 9 above are statistically significant, One- Way ANOVA was employed to compare the scores of the groups. The result is presented in Table 10.

Table 10: Summary of One Way ANOVA for the 3 Groups on the Protective Correlates of Negative Self-Image.

Measures	Between	Groups	Within	Groups	
	SSQ	MSQ	SSQ	MSQ	F
Negative Self-Image Inventory (NSII)	133069.40	66534.72	5698.41	2849.21	339.29*
Perceived Physical Ability (PPA)	201.88	100.94	6847.69	46.58	2.17
Perceived Self Presentation and Confidence (PSC)	1635.25	817.63	10118.72	68.84	11.88*
Personal Adjustment (ACL scale 23)	932.85	466.43	15362.14	104.50	4.46*

Note * Significant, P < .05, df = 2/147, Critical F = 3.00

The result in Table 10 showed that 2 out of the 3 protective correlates were significant. They include: Perceived Self Presentation and Confidence (PSC) and Personal Adjustment (ACL scale 23). The F ratio of NSII, the measure used to differentiate the groups, was also significant.

In order to find out the pairs of groups in Table 10, between which significant differences occurred, the Scheffe test (fs) was employed and the result is presented in Table 11.

Table 11: Scheffe test for the 3 levels on the Protective Correlates of Negative Self-Image where significant F ratio was obtained

Measures	Groups 1 & 2	Groups 1 & 3	Groups 2 & 3
Negative Self-Image Inventory (NSII)	24.48*	71.76*	47.28*
Perceived Self Presentation and Confidence (PSC)	2.2	7.84*	5.64
Personal Adjustment (ACL scale 23)	1.24	5.8	4.56

Note * Significant, Scheffe (fs) 6.00,

Group 1: Low NSII

Group 2: Medium NSII

Group 3: High NSII

The result in Table 11 showed 1 significant and 5 non-significant values, of which significant values were observed on the following protective correlates of NSII: Perceived Self Presentation and Confidence in the following paired groups 1 & 3 (Low and High NSII groups).

The results in tables 9, 10 and 11 offered support for Hypothesis 5 that states that: *the low NSII group will record significantly higher scores in the protective correlates of negative self-image, than the medium and high NSII groups.*

In order to determine the psychopathological concomitants of Negative Self-Image, the means and SDs of the 7 groups, in each of the risk correlates of negative self-image were computed. The 7 groups include: Normal High NSII, Normal Medium NSII, Normal Low NSII, the 50 Professional Athletes, the 50 Keep-Fit Exerciser, The 50 Orthopaedic Clients and the 50 Outpatient Psychiatry. The result is presented in Table 12.

Testing Hypothesis 6 (tables 12, 13, 14): *The high NSII group would have significantly higher scores in risk correlates of negative self-image than the other 6 groups (Psychiatric, Orthopaedic, Professional Athletes, Keep-fit Exercisers, Low and Medium NSII groups).*

Table 12: Mean and SD of the 7 Groups on the Risk Correlates of Negative Self-Image

Measures	Parameters	Orth.	Psyc.	Prof. Ath.	Keep-fit Exers.	High NSII	Med. NSII	Low NSII
Negative Self-Image Inventory (NSII)	X	95.08	91.40	90.20	89.50	133.00	85.70	61.30
	SD	26.30	24.10	23.10	28.90	22.60	5.45	6.88
Index of Self Esteem (ISE)	X	33.05	34.02	30.05	33.03	35.04	32.07	27.04
	SD	10.02	11.01	10.07	12.08	12.49	11.03	10.01
Social Maladjustment Scale (SMS)	X	12.50	12.90	11.70	12.40	13.20	12.10	12.20
	SD	2.99	2.70	2.80	3.40	3.01	3.01	2.72
Fear of Negative Evaluation (FNE)	X	13.80	14.70	12.80	13.50	15.50	12.40	12.00
	SD	3.18	5.89	4.26	5.20	4.31	4.37	4.84
Irritability (IBQ scale B)	X	2.10	1.82	1.16	1.32	2.10	1.08	0.94
	SD	1.33	1.34	1.09	1.15	1.17	1.58	1.04

The result in Table 12 showed that the normal high NSII groups obtained highest mean score in 4 of the risk correlates of negative self-image. They include: Index of Self Esteem (ISE); Social Maladjustment Scale (SMS), Fear of Negative Evaluation (FNE) and Negative Self-Image Inventory (NSII). There is also a tie between Orthopaedic and high NSII groups on irritability.

To find out if the observed differences in Table 12 are statistically significant, One-Way ANOVA was employed to compare the scores of the 7 groups in each of the psychopathological measures. The result is presented in Table 13.

Table 13: One Way ANOVA for the 7 Groups on the Risk Correlates on Negative Self-Image

Measures	Between	Groups	Within	Groups	F
	SSQ	MSQ	SSQ	MSQ	
Negative Self-Image Inventory (NSII)	134427.20	22404.54	160432.40	467.73	47.90*
Index of Self Esteem (ISE)	89.39	13.81	3342.40	12.71	2.01
Social Maladjustment Scale (SMS)	76.26	12.71	3125.16	9.11	1.40
Fear of Negative Evaluation (FNE)	469.01	78.17	7400.30	21.58	3.62*
Irritability (IBQ scale B)	73.02	12.17	544.48	1.59	7.67*

Note * Significance, P < .05, df = 6/343, Critical F = 2.10

The result in Table 13 showed that 2 of the risk correlates of negative self-image were significant. The significant measures include: Fear of Negative Evaluation (FNE), Irritability (IBQ scale B), as well as Negative Self-Image Inventory (NSII).

In order to find out the pairs of group in Table 13 above, between which significant differences occurred, the Scheffe test (fs) was employed. The result is presented in Table 14.

Table 14: Scheffe test for the 7 levels on Risk Correlates of Negative Self-Image where Significant F ratios were obtained.

Groups	Measures		
	FNE	Irritability	NSII
1&2	0.90	0.28	4.18
1&3	0.98	0.94	5.36*
1&4	0.28	0.78	6.10*
1&5	1.66	0.00	37.46*
1&6	1.44	1.02	9.82*
1&7	1.80	1.16	34.30*
2&3	1.88	0.66	1.18
2&4	1.18	0.50	1.92
2&5	0.76	0.28	41.64*
2&6	2.34	0.74	5.64*
2&7	2.70	0.88	30.12*
3&4	0.70	0.16	.74
3&5	2.64	0.94	42.82*
3&6	0.46	8.00*	4.46*
3&7	0.82	0.22	28.94*
4&5	1.94	0.78	43.56*
4&6	1.16	0.24	3.72
4&7	1.52	0.38	28.20*
5&6	3.10	1.02	47.28*
5&7	3.46	1.16	71.76*
6&7	0.36	0.14	24.80*

Note * Significance, Scheffe (fs) = 4.20,

Note: Groups
1: Orthopaedic group 2: Psychiatric group 3: Professional Athletes
4: Keep-fit Exercisers 5: Normal High Group 6: Normal Medium Group
7: Normal Low Group
Note: FNE: Fear of Negative Evaluation, IBQ scale B: Irritability, NSII: Negative Self-Image Inventory.

The result in Table 14 showed 17 significant values, which were: Irritability (IBQ scale B), in paired group 3 & 6. The result also showed that NSII was significant in the following paired groups: 1&3, 1&4, 1&5, 1&6, 1&7, 2&5, 2&6, 2&7, 3&5, 3&6, 3&7, 4&5, 4&7, 5&6, 5&7, and 6&7.

In summary, the results in Tables 12, 13 and 14 indicated that the high NSII group recorded higher means score in 3 out of 4 psychopathological/risk correlates of negative

self-image, of which 3 were significant. The result supports hypothesis 6 that states that: *the high NSII group would have significantly higher scores in risk correlates of negative self-image than the other 6 groups (Psychiatric, Orthopaedic, Professional Athletes, Keep-fit Exercisers, Low and Medium NSII groups).*

In order to determine the extent to which related measures could predict negative self-image, Multiple Regression Analysis of the scores of 50 high NSII group was computed with NSII as the criterion or dependent variable and the other 7 measures as the predictor or independent variables. The result is presented in Table 15.

Testing Hypothesis 7 (Tables 15, 16, 17): *both protective and risk correlates of negative self-image will significantly predict NSII.*

Table 15: The Regression Summary Table

R	R Square	Adjusted R Square	Standard Error of Estimate
0.63	0.39	0.29	19.04

The result in Table 15 above indicated that 39% of the variance of NSII was contributed by the predictor variables.

In order to find out if the contribution of the measures is significant, ANOVA of the multiple regressions was computed. The result is presented in Table 16

Table 16: ANOVA Summary for the Multiple Regression Analysis

Model	SS	df	MS	F
Regression	9834.69	7	1404.96	3.88*
Residual	15217.23.05	42	362.32	
Total	25051.92	49		

Significant at P < .05, df = 7/49, Critical F = 1.99

The result in Table 16 showed that the contributions of the predictors to the criterion are statistically significant.

In order to determine the contribution of each of the predictor variables to the variance of negative self-image, the beta coefficients and the independent t were computed for all the variables. The result is presented in Table 17.

Table 17: Relative Contribution of the 7 Predictor Variables to Variance in Negative Self-Image.

Measures	Beta	T	Standard Error
Fear of Negative Evaluation	-.03	-.01	.98
Social Maladjustment Scale (SMS)	.22	-.14	.88
Index of Self Esteem (ISE)	-.22	-1.75	.23
Perceived Physical Ability (PPA)	.09	.68	.47
Perceived Self Presentation and Confidence (PSC)	-.22	-4.43	1.52
Irritability (IBQ scale B)	.56	.36	4.28
Personal Adjustment (ACL scale 23)	-.05	-.37	.33

Note * Significant, P < .05, df 48, Critical t = 2.00

The result in table 17 indicated that Irritability had the highest positive contribution of (56%), followed by Social Maladjustment Scale (SMS) with 22% while the highest negative contributions were Index of Self-Esteem (ISE) and Perceived Self-Presentation and Confidence with (-22%) respectively.

The results in Tables 15, 16 and 17 offered support for hypothesis 7 that stated that: *both protective and risk correlates of negative self-image will significantly predict NSII.*

To determine the relative Pre-treatment scores of the 1st treated, 2nd treated and control groups, their mean scores and SDs were computed. The result is presented in Table 18.

Table 18: Mean and SD of the Pre-Treatment scores of the 1st and 2nd Experimental (Placebo) Groups and Control Group.

Measures	Groups					
	1st Experimental (n = 10)		2nd Experimental (n = 10)		Control (n = 10)	
	X	SD	X	SD	X	SD
Negative Self-Image Inventory (NSII)	156.00	18.51	138.10	11.09	130.90	10.41
Index of Self Esteem (ISE)	42.10	9.18	46.20	6.17	44.60	12.67
Social maladjustment Scale (SMS)	13.30	2.98	12.90	3.73	13.20	2.97
Fear of Negative Evaluation (FNE)	14.80	2.53	14.40	4.01	14.20	3.99
Perceived Physical Ability (PPA)	31.60	4.67	36.50	7.55	35.10	4.77
Perceived Self Presentation and Confidence (PSC)	39.90	6.18	43.10	4.10	41.17	5.36
Irritability (IBQ scale B)	1.30	0.68	2.20	0.79	1.70	1.47
Personal Adjustment (ACL scale 23)	46.20	13.58	44.80	8.87	45.50	11.14

The result in Table 18 showed that the 1st experimental group recorded the highest mean scores on the following measures: Negative Self Image Inventory (NSII), Fear of Negative Evaluation (FNE), Social Maladjustment Scale (SMS) and Personal Adjustment (ACL scale

23). The 2nd experimental (placebo) group however recorded the highest mean score on the following measures: Irritability (IBQ. B), Perceived Physical Ability (PPA), Perceived Self Presentation and Confidence (PSC) and Index of Self Esteem (ISE).

To find out if the observed differences in Table 18 above are statistically significant. One-Way ANOVA was employed to compare the 3 groups in each of the 8 measures. The result is presented in Table 19 below.

Table 19: One Way ANOVA of the Pre-Treatment Scores of the 1st, 2nd Experimental (Placebo) and Control Groups on the 8measures.

Measures	Between Groups		Within Groups		
	SSQ	MSQ	SSQ	MSQ	F
Negative Self-Image Inventory (NSII)	3340.87	1670.40	5163.80	191.25	8.73*
Perceived Physical Ability (PPA)	127.40	63.70	913.80	33.84	1.88
Perceived Self Presentation and Confidence (PSC)	57.87	28.93	776.30	28.75	0.38
Fear of Negative Evaluation (FNE)	1.87	0.93	345.60	12.80	0.07
Social Maladjustment Scale (SMS)	0.87	0.43	284.60	10.54	0.04
Index of Self Esteem (ISE)	85.40	42.70	2542.90	94.18	0.45
Irritability (IBQ B)	4.07	2.03	29.80	1.10	1.84
Personal Adjustment (ACL scale 23)	9.80	4.90	3483.70	129.03	0.04

Note * = Significance, P < .05, df = 2/27, Critical F = 3.35

The result in Table 19 showed one significant measure: Negative Self-Image Inventory (NSII).

In order to find out the pair of groups in Table 19 above between which the significant difference occurred, the Scheffe test was employed. The result is presented in Table 20.

Table 20: Scheffe test for the 3 Pre-Treatment Experimental groups where significant F ratio was obtained.

Measure	Groups		
	Groups 1 & 2	Groups 1& 3	Groups 2 & 3
NSII	17.90*	25.10*	7.20*

Note * Significant, P < .05, Scheffe (fs) 6.70

Group 1 = 1st Experimental Group, Group 2 = 2nd Experimental (Placebo) Group, Group 3 = Control Group

The result in Table 20 indicates that NSII was significant in all the paired groups. This means that the random allocation of the participants into 3 groups is justified and the 3 groups have equivalent degree of manifestations of psychopathology before therapy.

To determine the relative post-treatment scores of the 3 experimental groups, their mean score and SDs were computed. The result is presented in Table 21 below.

Testing Hypothesis 8 (Tables 21, 22, 23): *high NSII participants, treated with Rational Emotive Behaviour Therapy (REBT) and Assertiveness Training would have significantly lower measures of negative self-image than those that received placebo treatment or no treatment at all.*

Table 21: Mean and SD of the post-treatment scores of the 1st, 2nd Experimental (placebo) and Control Groups on the 8 Measures

Measures	Post-treatment Scores					
	1stExperimental n = 10		2nd Experimental n = 10		Control = 10	
	Mean	SD	Mean	SD	Mean	SD
Negative Self-Image Inventory (NSII)	69.30	10.90	104.90	27.16	97.80	12.95
Perceived Physical Ability (PPA)	37.60	6.10	35.70	6.55	39.30	5.56
Perceived Self Presentation and Confidence (PSC)	48.10	6.67	41.30	5.36	46.70	5.19
Social Maladjustment Scale (SMS)	13.30	3.02	14.00	3.02	11.30	2.58
Index of Self Esteem (ISE)	32.20	8.20	32.40	10.64	27.90	7.21
Fear of Negative Evaluation (FNE)	13.20	7.25	15.20	8.14	11.20	4.49
Irritability (IBQ scale B)	1.60	1.27	0.80	0.64	2.80	1.40
Personal Adjustment (ACL scale 23)	48.40	7.00	51.30	6.99	55.10	7.4751

The result in Table 21 showed that the 1st experimental group obtained the lowest mean score on Negative Self-Image Inventory (NSII) as well as high score on the protective correlate of negative self-image - Perceived Self Presentation and Confidence (PSC). The results also indicate that the 2nd experimental group obtained the highest mean scores in Negative Self-Image Inventory (NSII), Fear of Negative Evaluation (FNE), Social Maladjustment Scale (SMS) and Index of Self Esteem (ISE). However, the Control group obtained the highest mean scores on the following 3 measures: Personal Adjustment (ACL scale 23), Irritability (IBQ. Scale B), and Perceived Physical Ability (PPA). The group also obtained the highest SDs.

To find out if the observed differences in Table 21 are statistically significant, One Way ANOVA was used to compare the post–treatment scores of the experimental group, in each of the 8 measures. The result is presented in Table 22.

Table 22: One Way ANOVA for the Post-treatment Scores of the 1st, 2nd Experimental (Placebo) and Control Group on the 8 measures.

Measures	Between Groups		Within Groups		
	SSQ	MSQ	SSQ	MSQ	F
Negative Self-Image Inventory (NSII)	7100.07	3550.03	9216.60	341.36	10.40*
Perceived Physical Ability (PPA)	64.87	32.43	998.60	36.99	0.89
Perceived Self Presentation and Confidence (PSC)	257.87	128.93	901.10	33.37	3.86*
Fear of Negative Evaluation (FNE)	80.00	40.00	1250.80	46.33	0.86
Social maladjustment Scale (SMS)	39.27	19.63	224.20	8.30	2.364
Index of Self Esteem (ISE)	129.27	64.63	2090.90	77.44	0.835
Irritability (IBQ scale B)	20.27	10.13	35.60	1.39	7.69*
Personal Adjustment (ACL scale 23)	225.80	112.90	1389.40	51.46	2.19

Note * Significance, P < .05, Df = 2/27, Critical F = 3.35

The result in Table 22 indicated 3 significant measures, which were NSII, Perceive Self Presentation and Confidence (PSC) and Irritability (IBQ scale B)

To find out the pair of the groups in Table 22 above, between which significant differences occurred, the Scheffe test was employed for the post hoc comparison. The result is presented in Table 23 below.

Table 23: Scheffe Test for the 3 post-Treatment Groups where Significant F Ratio was obtained.

Measures	Groups		
	Groups 1 & 2	Groups 1 & 3	Groups 2 & 3
Negative Self-Image Inventory (NSII)	35.60*	28.50*	7.10*
Irritability (IBQ scale B)	0.80	1.20	2.00
Perceive Self Presentation and Confidence (PSC)	6.80*	1.40	5.40

Note * Significance, P < .05, Scheffe = 6.70
Group 1 = 1st Experimental Group, Group 2 = 2nd Experimental Group (Placebo), Group 3 = 3rd Treated Group

The result in Table 23 showed that Negative Self-Image (NSII) was significant in all three paired groups. Perceived Self Presentation and Confidence was also significant in paired group 1 & 2.

The results in tables 18 to 23 offer support for hypothesis 8 that states that: *high NSII participants, treated with Rational Emotive Behaviour Therapy (REBT) and Assertiveness Training would have significantly lower measures of negative self-image than those that received placebo treatment or no treatment at all.*

To determine the specific influence of treatment on participants, the mean gain scores and standard deviations of the three treated groups were obtained. The result is presented in Table 24.

Table 24: Mean Gain Scores and SD of 1st, 2nd Experimental Groups and Control Group on the 8 Measures.

Measures	Groups					
	1st Treated. Group n = 10		2nd Treated Group n = 10		Control Group n =10	
	Mean	SD	Mean	SD	Mean	SD
Negative Self-Image Inventory (NSII)	64.30	23.42	113.00	17.94	117.10	18.08
Perceived Physical Ability (PPA)	155.40	9.17	150.00	9.12	153.00	6.79
Perceived Self Presentation and Confidence (PSC)	155.90	10.91	154.00	.00	154.00	.00
Fear of Negative Evaluation (FNE)	149.00	8.67	150.50	11.08	147.40	4.74
Social maladjustment Scale (SMS)	150.00	4.59	151.10	3.76	149.30	4.27
Index of Self Esteem (ISE)	138.90	9.53	137.40	12.56	133.10	14.89
Personal Adjustment (ACL 23)	150.50	19.40	156.50	12.11	159.50	13.21
Irritability (IBQ B)	150.30	1.49	148.60	0.69	151.50	2.08

The result in Table 24 showed that the control group obtained highest mean scores on NSII and irritability, while the 2nd experimental group obtained high scores on Fear of Negative Evaluation. Lowest mean score was obtained by the 1st experimental group on Negative Self-Image Inventory (NSII).

To determine if the observed differences in Table 24 are statistically significant, One Way ANOVA was used to compare the mean gain scores of the three groups in each of the 8 measures. Result is presented in Table 25 below.

Table 25: One Way ANOVA for the Mean Gain Post-treatment Scores on the 8 measures.

Measures	Between Groups		Within Groups		
	SSQ	MSQ	SSQ	MSQ	F
Negative Self-Image Inventory (NSII)	17254.47	8627.23	10781.00	399.30	21.61*
Perceived Physical Ability (PPA)	146.40	73.20	1924.40	71.20	1.01
Perceived Self Presentation and Confidence (PSC)	24.07	12.03	1070.90	39.66	.74
Fear of Negative Evaluation (FNE)	57.87	28.93	1986.00	73.56	0.68
Social Maladjustment Scale (SMS)	16.47	8.23	481.00	17.82	0.46
Index of Self Esteem (ISE)	181.27	90.63	4323.20	156.75	0.58
Irritability (IBQ scale B)	32.60	16.30	63.40	2.35	6.94*
Personal Adjustment (ACL scale 23)	420.00	210.00	6281.50	232.65	0.93

Note * Significance, P < .05, df = 2/27, Critical F = 3.35

The result in Table 25 showed two statistically significant measures: NSII and Irritability.

To then find out the pair of groups in which such significant differences occurred, the Scheffe's test was thus employed. Result is presented in Table 26.

Table 26: Scheffe test for the Mean Gain Post-treatment scores of the 3 groups where significant F ratio was observed

Measures	Groups		
	Groups 1 & 2	Groups 1 & 3	Groups 2 & 3
NSII	48.70*	52.80*	4.10
(Irritability) IBQ B	1.70	0.80	2.50

Note * Significance, P < .05, Scheffe = 6.70, Group 1 = 1st Experimental Group
Group 2 = 2nd Experimental (placebo) Group
Group 3 = Control Group
The result in Table 26 showed statistically significant measure among the following paired groups: 1 & 2, 1& 3 on NSII.

The results shown in Tables 24 to 26 indicated that the 1st experimental group benefited tremendously from the psychotherapy administered to them, further affirming hypothesis 8 that states that *high NSII participants, treated with Rational Emotive Behaviour Therapy (REBT) and Assertiveness Training would have significantly lower measures of negative self-image than those that received placebo treatment or no treatment at all.*

CHAPTER FIVE

5.0: DISCUSSION AND CONCLUSION

5.1: Summary of Findings

The aim of this study was to develop and standardize a new test instrument: Negative Self-Image Inventory, (NSII) and to assess the nature and characteristics of negative self-image among selected categories of Nigerians. The study also went further to manage those that manifested high negative self-image with Rational Emotive Behaviour Therapy (REBT) and Assertiveness Training.

The following are the major findings from this study:

1. Negative Self-Image inventory (NSII) was developed in this study and was found to be reliable with positive and significant split-half, test-retest and Cronbach alpha reliabilities
2. Scores obtained in NSII correlated positively with scores of a comparable standardized instrument, Fear of Negative Evaluation (FNE), indicating the validity of this new test.
3. There were significant risk and protective correlations between NSII and the following measures:
    - *Significant risk correlation* - (Fear of Negative Evaluation (FNE), Social Maladjustment Scale (SMS), Index of Self Esteem (ISE) and Irritability.
    - *Significant protective correlation* - Perceived Self Presentation and Confidence (PSC), Perceived Physical Ability (PPA) and Personal adjustment.

- The above indicate possible risk factors: (fear of negative evaluation, social maladjustment behaviour, poor self-esteem and irritability); and protective factors (perceived self-presentation and confidence, perceived physical ability and personal adjustment) of negative self-image.

4. There were no significant differences on the measure of negative self-image and associated variables between the male and female groups. This implies that negative self-image is not gender specific as previously thought.
5. The low negative self-image group obtained statistically significant higher scores on the protective correlates of negative self-image, than the high and medium negative self-image groups.
6. The risk correlates of negative self-image were found to be significantly higher among the high negative self-image group than the other 6 groups namely Orthopaedic, keep-fit, professional athletes, psychiatric out-patients, low NSI and medium NSI groups.
7. Both negative and positive correlates of negative self-image significantly predicted NSII as a criterion variable.
8. Rational Emotive Behaviour Therapy (REBT) and Assertiveness Training were found to be efficacious in the management of negative self-image

5.2: Discussion

The aim of this study was to assess the nature and characteristics of negative self-image among selected categories of Nigerians and manage those that manifested high negative self-image. Specifically, the study employed the following group of participants: orthopaedic patients, professional athletes, keep-fit exercisers, psychiatric out-patients

and low, medium and high negative self-image groups. The study also determined the effectiveness of REBT and Assertiveness training in the management of negative self-image. To accomplish these objectives, two distinct studies were carried out. They were:

1. The development and standardization of Negative Self-Image Inventory (NSII)
2. Assessment and Management of Negative Self-Image

The development and validation of NSII: Psychological instruments continue to be one of the most powerful and essential tool for obtaining objective information about human behaviour. The development and validation of negative self-image inventory is an effort to contribute to the body of knowledge in this area. The first effort about any newly developed instrument is to determine its reliability and validity, that is, to measure what it was designed to measure (American Educational Research Association 1999). The result in Table 2 showed that NSII has an alpha coefficient of .82 and a significantly high split-half reliability of .78, thereby attesting to its reliability. According to Aiken (2003), for a test to determine if the mean score of the two groups of people are significantly different, a reliable coefficient of .60 to .70 may be satisfactory. The reliability coefficient of alpha and split-half obtained on the NSII are above the range and also above the commonly held rule of a minimum Cronbach alpha of .70. The reliability values obtained for the scale are comparable to those of other tests commonly used such as The Self-Image Questionnaire for Young Adults (SIQYA) by Peterson et. al., (1984) which reported a reliability coefficient of .81; and Offer Self-Image Questionnaire by Offer (1992), with .53 to .70 coefficients.

For the validity of NSII, the concurrent validity was tested by correlating it with Fear of Negative Evaluation (FNE), a similar test instrument in order to ascertain the concurrent validity. The concurrent validity obtained was .51 (table 3). This result is positive and significant. This thus confirmed Aiken (2003) claim that a construct validated instrument should have high correlations with other measures or methods measuring the same construct (convergent validity), but low correlations with measures of different construct (divergent validity). This statement was further amplified by Brace, Kemp and Sineglar (2006), which stated that convergent validities above .85 shows that the scales are very similar and might not necessarily be used as two different scales, while values that range between .50 and .80 show differences in the scales though they may be measures of the same construct. Conversely, values below .50 indicate various degrees of divergence between scales. A concurrent validity of .51 is an indication that NSII had good validity measure.

NSII was further subjected to factor analysis which Brace, Kempo and Snelger (2006) indicated as another way of confirming construct validity of scale. As could be seen in Table 4, 5 and 6, the data were analyzed using the principle component analysis and orthogonal factors greater than 1.0 were found. Rotating the components, 13 component factors were extracted which conformed to Kaiser's criterion and Thurstone's (1947) principles. This means that the factors extracted loaded significantly, and are independent of one another. The component factors extracted could be said to represent different factors that constituted negative self-image. Specifically, result showed that the 13 factors were: Body-image anxiety, Poor self-confidence, Social Awkwardness, Complexion dissatisfaction, Self consciousness, Embarrassment, Self monitoring/admiration and

Body-checking behaviour. Others were Fixation with stomach/body size, Poor personal space, Fear of negative evaluation, Dieting and Dentition Dissatisfaction. The above named 13 factors were therefore capable of being sub-scales of Negative Self-Image Inventory.

The result in table 7 showed 23 significant correlations. Specifically, NSII has a significant positive relationship with Fear of Negative Evaluation (FNE), Social Maladjusted Scale (SMS), Index of Self-Esteem (ISE) and Irritability, thus indicating its risk correlates. Also it has significant negative relationship with Perceived Physical Ability (PPA), Perceived Self Presentation and Confidence (PSC) and Personal Adjustment indication its protective correlates. In additional to supporting hypothesis 3, the above provided insight on the risk (ISE, FNE, SMS, Irritability) and protective (PPA, PSC and Personal adjustment) correlates of negative self-image.

Though there are controversies over the definitions, the term risk factors generally refers to influences that increase the likelihood that an individual may develop a given physical or emotional difficulties (Shisslack & Crago, 2002) in this case, negative self-image; and protective factors are those characteristics and opportunities that decrease the chances that a problem will emerge. An indication is that low self-esteem, a negative evaluation of self, social maladjustment behaviours and irritability are risk correlates that should be targeted at during intervention. These, by no means are not exhaustive. Future studies should research more on this for additional risk correlates of negative self-image. Likewise, the aforementioned protective correlates of negative self-image obtained are pointers to possible areas to be strengthened during intervention. An indication of this is

that a perceived physical ability, perceived self-presentation and confidence and personal adjustment are variables associated with a more positive self-image. Theses observations thus contributed to knowledge on the risk and protective correlates of negative self-image.

This is in accordance with other protective factors observed by several studies, such as: being self-directed and assertive (Rodin, Striegel-Moore & Silberstein 1990); successful performance of multiple roles – for example, education, career, family, personal interests (Rodin et. al. 1990); coping well with stressful situation (Rodin, et. al., 1990; Striegel-Moore & Cachelin, 1999); high self-esteem (Shisslack, Crago, Renge & Clark-Wagner 1998; Striegel-Moore & Cachelin 1999); and a genetic predisposition to be slender (Conners, 1996; Rodin et. al., 1990). Family protective factors that could be deduced were: being a member of a family in which there is not an over-emphasis on weight and attractiveness (Conners, 1996; Rodin et al., 1990); and close, but not close, relationships with parents (Smolak & Striegel-Moore 1996). Protective factors of a socio-cultural norms are: social acceptance of a diverse range of body shapes and sizes (Rodin et. al., 1990); participation in sports that encourage the appreciation of the body for its performance more than just its attractiveness (Rodin et. al., 1990; Smolak, Murnen, & Ruble 2000); close relationships with friends or romantic partners who were relatively unconcerned with weight; Good social support (Rodin et. al., 1990; Striegel-Moore & Cachelin 1999). This is an indication that, such protective factors play important role in increasing resistance to negative self-image.

In addition, Steinhouse (1993) presented a risk profile of distorted mood, insecurity, feeling of inadequacy, poor adaptation skills, unrealistic high aspirations, social and personal withdrawal. Others include social maladjustment, largely due to fear of negative evaluation. According to Caballo, (1998), symptoms of negative self-image could reach an extreme, almost agoraphobic-like level, (fear of the outside world). Others could include reassurance seeking habits, body grooming (checking and cross-checking self in the mirror), distorted judgment of character, personality and skill (Shumacher 2003). Inclusive also were general interpersonal difficulties due to a tendency to underscore personal uniqueness and special abilities.

The result in Table 8 was used to evaluate hypothesis 4 which stated that the levels of negative self-image and psychological distress would be significantly higher in females than in males. The result indicated that the female group recorded higher mean scores than the male group on the measure of negative self-image and associated variables (Table 8). However, the t independent test presented in the last column of Table 8 showed that there were no significant differences between females and males in NSII. Therefore, hypothesis 4 was rejected.

The general expectation would be that the females would manifest more negative self-image concerns than males because it was believed that an important aspect of a woman's social learning is the equation of physical attractiveness to self-esteem (Franks, 1986; Nagel & Jones, 1992). These views posited that in general, women over identified with their bodies and that a woman's sense of self-worth often is contingent on conforming to the prevailing norms of attractiveness (Bergner, Remer & Whetsell, 1985; Striegel-Moore

& Marcus, 1995). In the same way, women were socialized to place higher priority on interpersonal relationships than men (Striegel-Moore & Marcus, 1995). Women also were taught to believe that they were responsible for the success of their relationships, while their identity was organized around valuing, seeking out, maintaining and nurturing social relationships. Thus, socializing experiences (e.g., the mass media, parental and peer pressure), linked success in interpersonal relationships with perceived attractiveness (Striegel-Moore et al, 1995). However, the fact that negative self-image was not gender specific as previously thought is thus interesting and insightful. Results from this study provide further insight here. It was observed that males obtained higher mean scores on associated variable of negative self-image such as Fear of Negative Evaluation (FNE), Social Maladjustment and Irritability. Baker (1994) noted that men's self-consciousness about their appearance is probably greater now than ever before. Mushkind, Rodin, Silberstein and Striegel-Moore (1986) observed that physical image concern is strong for men because media image of the young lean muscular male body represent changes in society's attitude towards the male body. Advertisements also celebrates the young, lean and muscular male body while men's fashion have undergone significant changes in style both to accommodate and to accentuate changes in men's physique, towards a more muscular and trim body (Mushkind et al., 1986).

The result in Tables 9, 10 and 11 showed that the high NSII groups obtained lowest mean scores in 3 of protective correlates of negative self-image. Specifically, high NSII groups obtained low scores on the following protective correlates: Perceived Physical Ability (PPA), Perceived Self Presentation and Confidence (PSC) and Personal adjustment. However, the low NSII group recorded highest mean, scores in 3 of the protective correlates of negative self-image. They were: Perceived Physical Ability (PPA), Perceived

Self Presentation and Confidence (PSC) and Personal Adjustment. The low NSII group also obtained lowest mean score on Negative Self-Image Inventory (NSII). This scale formed the basis for differentiating the groups. The result also showed that 2 out of the 3 protective correlates were significant. They included: Perceived Self Presentation and Confidence (PSC) and Personal Adjustment (ACL scale 23). The F ratio of NSII, the measure used to differentiate the groups, was also significant. In addition to confirming hypothesis 5, the result further confirmed the role of protective correlates in the development and manifestations of positive self-image. Other study also observed that in contrast to risk correlates for negative self-image, relatively little is known or has been written about protective factors that may increase resistance to negative self-image. It is exciting to add to knowledge in this area. Previous studies on protective correlates of negative self-image observed the following: (a) being self-directed and assertive (Rodin, Striegel-Moore & Silberstein 1990); (b) Successful performance of multiple roles – for example, education, career, family, personal interests (Rodin et. al. 1990); (c) Coping well with stressful situation (Rodin, et. al., 1990; Striegel-Moore & Cachelin, 1999); (d) Good self-esteem (Shisslack, Crago, Renge & Clark-Wagner 1998; Striegel-Moore & Cachelin 1999); and (e) a genetic predisposition to be slender (Conners, 1996; Rodin et. al., 1990). Also inclusive are: participation in sports that encourage the appreciation of the body for its performance more than just its attractiveness (Rodin et. al., 1990; Smolak, Murnen, & Ruble 2000); close relationships with friends or romantic partners who are relatively unconcerned with weight; (d) Good social support (Rodin et. al., 1990; Striegel-Moore & Cachelin 1999).

Thus the finding from the present studies as well as previous studies provided insight on the protective correlates of negative self-image. An interesting observation is that the

correlates appear similar and insightful. Aforementioned studies were also carried in the western world. This highlights the universality of these basic human emotions and experiences irrespective of race, background and cultural experiences.

The result in Tables 12, 13 and 14 showed that the normal high NSII group obtained highest means score in 4 of the risk correlates of negative self-image. They include Social Maladjustment Scale (SMS), Index of Self Esteem (ISE), Fear of Negative Evaluation (FNE) and Irritability. They also obtained highest mean scores on Negative Self-Image Inventory (NSII). Result also showed that 3 of the psychopathological correlates of negative self-image were significant. The significant measures include: Fear of Negative Evaluation (FNE), Irritability as well as Negative Self-Image Inventory (NSII). Therefore hypothesis 6 that states that high NSII group would have significantly higher scores in risk correlates of negative self-image than the other 6 groups (Psychiatric, Orthopaedic, Professional Athletes, Keep-fit Exercisers, Low and Medium NSII groups) was accepted.

Recall that the high negative self-image group was extracted from the 'normal group' based on the scores on negative self-image. 'Normal' here means that this group was not part of Orthpaedic group, keepfit exercisers, psychiatric group and professional athlete group. Also, their scores on negative self image inventory indicated that they obtained scores higher than the mean score for NSII, thus a manifestation of negative self-image. However the question is "how normal is normal in this regard. The psychiatric group, a group supposedly expected out of tune with reality, obtained even lower scores on the risk correlates of negative self-image than the high normal group. Worthy of note is that most psychiatric disorders resulted in a disruption in a person's thinking, feeling, mood, ability and interpersonal relationships. These bring to the fore, the role of self-image

perceptions in a broad spectrum of psychiatric conditions. Thus, depersonalization, characterized by a feeling of disconnection from one's sense of self; a classic manifestation of looking in the mirror and not connecting to the image, reflected a sense of unreality and self-estrangement seen in Schizophrenic clients. Also the excessive negative self-image thoughts, the repetitive thoughts and compulsion as well as avoidance behaviours that characterize the body dysmorphic disorder have similar features with other psychiatric illnesses. The fact that those categorized as 'normal participants', obtained higher score on negative self-image and associated variable is both insightful and disturbing. This is because negative self-image anxieties developed to a dysfunctional extreme could lead to a psychopathological condition known as Body-Dysmorphic Disorder (BDD). This is a disorder of imagined ugliness defined by DSM-IV as an intensification of normal concern with real or imagined defect in physical appearance which causes significant distress in social, occupational, or other important areas of functioning. This is a disorder of imagined ugliness. People suffering from BDD are often secretive and are reluctant to seek help because of the strong conviction that society and significant others would find them vain. They erroneously believe that their anxieties are of physical origin rather than psychological in nature. They may seek to undergo plastic surgery, or over-exercise and other extreme measures in order to remedy the perceived or real defect in physical appearance. The observations from the present studies show that negative self-image is indeed a psychopathological concern that needs appropriate awareness and psychological management.

Nevertheless, to determine if the risk and protective correlates of negative self-image actually predicted negative self-image, multiple regression analysis was computed using scores of the 50 normal high negative self-image groups. The results as presented in

Tables 15, 16 and 17 indicate that 39% of the variance predicted negative self-image. Study went further to compute the ANOVA of the multiple regressions and the result indicated that the contribution of the predictors to the criterion is statistically significant. Specifically, table 17 indicate that Irritability had the highest positive contribution of (56%), followed by Social Maladjustment Scale (SMS) while the highest negative contribution were Index of Self-Esteem (ISE) and Perceived Self-Presentation and Confidence with (-22%) respectively at $P < .05$, df 48, Critical $t = 2.00$, further confirming hypotheses 7. This means that social maladjustment behaviour and irritability predicts predict negative self-image better than other variables measured. The result has validated the views of other researchers like Conners (1996); Leung, Geller and Katzmen (1996); Pike (1995); Smolak and Levine (1996). They observed that factors such as inadequate coping skills, poor social skills, body dissatisfaction and weight concerns are predictive factors. Also inclusive were negative emotionality, sense of ineffectiveness, depression and lack of introspective. The findings of the present study further strengthen the literature on predictive factors of negative self-image.

Another issue to be discussed is the effect of treatment on negative self-image. In an initial pre-treatment analysis, scores presented in Tables 18, 19 and 20 showed that the three experimental groups differed significantly only in NSII, an indication that they were equally matched in all the other variables before treatment. However, the post-treatment results presented in Tables 21 to 23 showed that the 1st experimental group had significantly lower scores in NSII and Irritability, and higher score in Perceived Self Presentation and Confidence (PSC) than the 2nd experimental and the control groups. Hypothesis 8 which states that: high NSII participants, treated with Rational Emotive

Behaviour Therapy (REBT) and Assertiveness Training would have significantly lower measures of negative self-image than those that receive placebo treatment or no treatment at all, was thus accepted. Suffice it to note that the ultimate goal of an intervention research should lead to defining causal models and identifying antecedent condition associated with the increased likelihood of a disorder. Thus, intervention was designed to reduce and eliminate risk factors of negative self-image as well as strengthen its protective factors.

ii: Placebo Effect

Taking a closer look at the findings, though there were observable indication that the treated group managed with REBT and Assertiveness training changed their negative self-image and became happier, the second treated group (Placebo group) actually recorded higher manifestations of negative self-image, Irritability and poor self-esteem than the control group. It may be recalled that this group participated in discussions on the state and conditions of living in Nigeria. This ranged from current affairs to infrastructural development. This is an unexpected finding and introduces a twist in this study. This may be an indication that the poor state of affairs in Nigeria (poverty, poor infrastructure, poor governance, corruption, etc.) might have triggered anxiety and negative self-image on this group of participants. This indeed is an unexpected but insightful observation.

5.3: Conclusion

The study proposed 8 hypotheses of which 7 were accepted. From the findings enumerated above, NSII was found to be reliable and valid for the assessment of negative self-image.

Also, the non-significant difference between males and females in negative self-image and associated variables is an indication that negative self-image concern is not peculiar to any gender as usually thought. The study further identified several protective correlates of negative self image, such as: perceived self-presentation and confidence and personal adjustment. It was noted that in contrast to risk correlates for negative self-image, relatively little is known or has been written about protective correlates that may increase resistance to negative self-image. It is therefore exciting to fill this gap in knowledge.

Furthermore the psychopathological concomitants or risk correlates of negative self-image observed in this study were fear of negative evaluation, social maladjustment behaviour, poor self esteem and irritability. These were in accordance with the findings of Connors, (1996) who found that low self-esteem, inadequate coping skill, poor social skills etc were risk factors to negative self-image. Cordener et al., (1998), also observed that other risk correlates such depression, low physical efficacy; negative emotionality and poor communication were additional risk correlates for negative self-image. Such findings indicated the importance of social skill training and cognitive restructuring in the management of negative self-image. Specifically, this study observed that out of the 7 groups employed for this study, the 'normal high NSII' group obtained higher scores on risk correlates of negative self-image - (fear of negative evaluation, social maladjustment behaviour and irritability) than the orthopaedic and even psychiatric groups. This is an indication that negative self-image perception is indeed a clinical problem that deserved proper psychological management.

The findings further indicate significant changes in negative self-image through the efficacy of Rational Emotive Behaviour Therapy (REBT), Socail Skill Training

(Assertiveness Training) and group interaction. It is therefore important to note that the dynamics of a group therapy regime aids a more adaptive and sustainable positive self-image.

5.4: Limitations of Study

1 Participants studied were: Orthopaedic, Psychiatry out-patients, Professional Athletes, Keep-fit Exercisers and Normal groups. It is therefore necessary to examine self-image concern in other groups like pregnant women, professional models, etc, in order to have additional information about the incidence of negative self-image.

2 The study employed only literate participants. It will be interesting to assess negative self-image manifestations among illiterates.

3 There should have been a 6-month and 12-month follow-up studies to determine the long-term effects of the psychological therapy.

4 The study employed REBT and Assertiveness training in its management schedule; other psychological therapies could be experimented.

5.5: Recommendations

In the light of the findings of this study, the following recommendations were suggested:

1. This study has shown that negative self-image concern is a psychopathological condition. There is therefore the need for the mass media to bring this fact to the awareness of the populace.
2. In view of the debilitating psychological anguish usually caused by negative self-image, it is recommended that special clinics should be established for the

screening and management of the disorder so that the individuals could contribute more positively to national development.

5.6: Contributions to Knowledge

Apart from confirming some already existing findings, the study has made some new contributions to knowledge. They include:

1. To the best of the researcher's knowledge, the Negative Self-Image Inventory (NSII), which is a new psychological test for the assessment of negative self-image, developed in this study, is the first of its kind, especially with Nigerian samples.
2. The study found that fixation with real or imagined defect in physical appearance, usually thought to be the burden of the female gender is also manifested by males, hence no statistically significant difference between males and females.
3. The study identified both the risk (fear of negative evaluation, social maladjustment behaviour, irritability, low self-esteem, etc.) and protective correlates (perceived self presentation and confidence, perceived physical ability, and personal adjustment, etc.) of negative self-image.
4. The study also demonstrated that Rational Emotive Behaviour Therapy (REBT) and Assertiveness Training are efficacious in the management of negative self-image.

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BIQ

Name:..... Sex.....Age.....Date.....

INSTRUCTION: I am seeking information about my school assignment. I implore you to help me by completing the following items candidly and truthfully. Please be assured that all the information provided by you will be treated with utmost confidentiality.

A Marital status

1. Single ☐ 2. Married ☐ 3. Separated ☐
4. Divorced ☐ 5. Widow ☐ 6. Single Parent ☐

B Educational Qualification

1. None ☐ 2. Primary School/G2 ☐ 3. Modern School/G4/JS3/TC III ☐
4. School Cert./SS 3/TC II ☐ 5. OND/NCE ☐ 6. BA/BSc/HND/MBBS ☐
7. MA/M.Sc./Ph.D. ☐

C Please indicate the frequency of your participation in the following sporting activities.

	Never	Occasionally	Fairly Regularly	Regularly	Very Regular	Always
1. Aerobic exercises/gymnastics	0	1	2	3	4	5
2. Jogging	0	1	2	3	4	5
3. Track and field(running, jumping, throwing)	0	1	2	3	4	5
4. Swimming	0	1	2	3	4	5
5. Footballing	0	1	2	3	4	5
6. Lawn/Table/Squash tennis	0	1	2	3	4	5
7. Basket/Volley ball	0	1	2	3	4	5
8. Walking/Dancing	0	1	2	3	4	5
9. Bicycle riding	0	1	2	3	4	5
11. Keep fit exercises at home	0	1	2	3	4	5
12. Visit to massage parlours/Sauna	0	1	2	3	4	5

D. To what extent do the following statements reflect why you participate in sporting activities?

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1. To keep fit generally	1	2	3	4	5
2. To slim down/reduce my weight	1	2	3	4	5
3. To build my muscles	1	2	3	4	5
4. To make me stronger	1	2	3	4	5
5. To improve my physique	1	2	3	4	5
6. To enhance my self-image	1	2	3	4	5
7. To make me bigger	1	2	3	4	5
8. To make me better-looking	1	2	3	4	5
9. To remove flabby muscles	1	2	3	4	5
10 To make me feel bold and confident	1	2	3	4	5

E Please indicate by ticking [√] the category you belong to in each of the following groups.

	Groups	None	Just discharged	Outpatient	Inpatient
1	General Hospital				
2	Orthopaedic Hospital				
3	Psychiatric Hospital				
4	Herbal/Traditional healing home				
5	Church/Mosque/Spiritual healing home				
6	Plastic surgery outfit				
7	Body Massage/Chiropractic Outfit				

APPENDIX I

NSII

Name:.....Sex.....Age.....Date.....

INSTRUCTION: The following are statements, which people often use to describe themselves. Please rea each statement carefully and indicate how it applies to you by **SHADING** only one of the numbers in front c each statement. It is not a test, so there are no right or wrong answers. **Please do not omit any item.**

The numbers stand for:

1 = Strongly Disagree
2 = Disagree
3 = Somewhat Disagree
4 = Somewhat Agree
5 = Agree
6 = Strongly Agree

1.	I weigh myself every now and then.....	1	2	3	4	5	6
2.	I believe that my belly is getting bigger than I desire.....	1	2	3	4	5	6
3.	I feel intimidated when I am with beautiful people.....	1	2	3	4	5	6
4.	I am too fat/thin for my liking.....	1	2	3	4	5	6
5.	I believe that people talk about me behind my back.....	1	2	3	4	5	6
6.	People say I have an unpleasant body odour.....	1	2	3	4	5	6
7.	I will like to go for plastic surgery to change the shape/size of my nose	1	2	3	4	5	6
8.	My breasts are rather too small/big.....	1	2	3	4	5	6
9.	I feel embarrassed about my height.....	1	2	3	4	5	6
10.	I often avoid close physical contact with people.....	1	2	3	4	5	6
11.	My shoulders are not as broad as I want.....	1	2	3	4	5	6
12.	I feel that my face is not attractive	1	2	3	4	5	6
13.	I like reading newspaper health columns.....	1	2	3	4	5	6
14.	I believe that my head is too big/small.....	1	2	3	4	5	6
15.	I really don't like the acne/pimples on my face.....	1	2	3	4	5	6
16.	I feel I can't go for certain jobs because of the way I look.....	1	2	3	4	5	6
17.	I believe I lack self confidence.....	1	2	3	4	5	6
18.	I have physical defects that I try to hide from others.....	1	2	3	4	5	6
19.	I want to tone up my complexion.....	1	2	3	4	5	6
20.	I don't like my cheeks.....	1	2	3	4	5	6
21.	People think I am old fashioned.....	1	2	3	4	5	6
22.	I feel that my buttocks/hips are fat and shapeless.....	1	2	3	4	5	6
23.	I feel uncomfortable in the midst of learned people.....	1	2	3	4	5	6
24.	I am not satisfied with the size/shape of my eyes	1	2	3	4	5	6
25.	I love looking at myself in the mirror.....	1	2	3	4	5	6
26.	My baldness bothers me.....	1	2	3	4	5	6
27.	I have the nicest lips around.....	1	2	3	4	5	6
28.	I am not satisfied with the shape/colour of my teeth.....	1	2	3	4	5	6
29.	My thighs are rather too heavy/thick.....	1	2	3	4	5	6
30.	I believe my ears are ugly.....	1	2	3	4	5	6
31.	I would like to change the colour of my hair.....	1	2	3	4	5	6
32.	People think I look older than my age.....	1	2	3	4	5	6
33.	I wish I am part of another race.....	1	2	3	4	5	6
34.	I feel jealous of people I think are better than me.....	1	2	3	4	5	6
35.	I wish my skin was smooth.....	1	2	3	4	5	6
36.	I sometimes diet to remain in shape.....	1	2	3	4	5	6
37.	My appearance makes me to avoid parties and public places.....	1	2	3	4	5	6
38.	I am not satisfied with the shape of my neck.....	1	2	3	4	5	6
39.	I believe I don't command enough respect from people.....	1	2	3	4	5	6
40.	People think I am quiet and timid.....	1	2	3	4	5	6

FNE

Name..... Sex..... Age..... Date.....

INSTRUCTIONS: The following are statements about the way you may feel or behave when dealing with other people. Please read each statement carefully and indicate how it applies to you by **SHADING** either **"T" (True) or "F" (False)** after each of the statements. It is not a test, so there are no right or wrong answers. Work rapidly and respond to ALL items.

1.	I rarely worry about seeming foolish to others.....	T	F
2.	I worry about what people will think of me even when I know it doesn't make any difference.....	T	F
3.	I become tense and jittery if I know someone is sizing me up.....	T	F
4.	I am unconcerned even if I know people are forming an unfavourable impression of me.....	T	F
5.	I feel very upset when I commit some social error.....	T	F
6.	The opinions that important people have of me cause me little concern.....	T	F
7.	I am often afraid that I may look ridiculous or make a fool of myself.....	T	F
8.	I react very little when other people disapprove of me.....	T	F
9.	I am frequently afraid of other people noticing my short comings.....	T	F
10.	The disapproval of others would have little effect on me.....	T	F
11.	If someone is evaluating me I tend to expect the worst.....	T	F
12.	I rarely worry about what kind of impression I am making on someone.....	T	F
13.	I am afraid that others will not approve of me.....	T	F
14.	I am afraid that people will find fault in me.....	T	F
15.	Other people's opinions of me do not bother me.....	T	F
16.	I am not necessarily upset if I do not please someone.....	T	F
17.	When I am talking to someone, I worry about what they may be thinking about me.....	T	F
18.	I feel that you can't help making social errors sometimes, so why worry about it.....	T	F
19.	I am usually worried about what kind of impression I make.....	T	F
20.	I worry a lot about what my superiors think of me.....	T	F
21.	If I know someone is judging me, it has little effect on me.....	T	F
22.	I worry that others will think I am not worthwhile.....	T	F
23.	I worry very little about what others may think of me.....	T	F
24.	Sometimes I think I am too concerned with what other people think of me.....	T	F
25.	I often worry that I will say or do the wrong things.....	T	F
26.	I am often indifferent to the opinions others have about me.....	T	F
27.	I am usually confident that others will have a favourable impression of me.....	T	F
28.	I often worry that people who are important to me won't think very much of me.....	T	F
29.	I brood about the opinions my friends have about me.....	T	F
30.	I become tense and jittery if I know I am being judged by my superiors.....	T	F

DEVELOPED BY D. WATSON & R. FRIEND (1969)

ISE

NAME: ..... SEX ..... AGE ..... DATE .....

INSTRUCTIONS: The following are a number of statements which indicate how people see or feel about themselves. It is not a test, so there are no right or wrong answers. Please read each statement carefully and shade the appropriate number to the right of each statement to indicate how the statement has described how you feel about yourself.

The numbers stand for:

1 = Rarely or none of the time
2 = A little of the time
3 = Some of the time
4 = A good part of the time
5 = Most or all of the time

1.	I feel that people would not like me if they really knew me well	1	2	3	4	5
2.	I feel that other get along much better than I do	1	2	3	4	5
3.	I feel that I am a beautiful person	1	2	3	4	5
4.	When I am with other people I feel they are glad I am with them	1	2	3	4	5
5.	I feel that people really like to talk to me	1	2	3	4	5
6.	I feel that I am a very competent person	1	2	3	4	5
7.	I think I make a good impression on others	1	2	3	4	5
8.	I feel that I need more self-confidence	1	2	3	4	5
9.	When I am with strangers I am very nervous	1	2	3	4	5
10.	I think that I am a dull person	1	2	3	4	5
11.	I feel ugly	1	2	3	4	5
12.	I feel that others have more fun that I do	1	2	3	4	5
13.	I feel that I bore people	1	2	3	4	5
14.	I think my friends find me interesting	1	2	3	4	5
15.	I think I have a good sense of humour	1	2	3	4	5
16.	I feel very self-conscious when I am with strangers	1	2	3	4	5
17.	I feel that if I could be more like other people, I would have it made	1	2	3	4	5
18.	I feel that people have a good time when they are with me	1	2	3	4	5
19.	I feel like a wall-flower when I go out	1	2	3	4	5
20.	I feel I get pushed around more than others	1	2	3	4	5
21.	I think I am a rather nice person	1	2	3	4	5
22.	I feel that people really like me very much	1	2	3	4	5
23.	I feel that I am a likeable person	1	2	3	4	5
24.	I am afraid I will appear foolish to others	1	2	3	4	5
25.	My friends think very highly of me	1	2	3	4	5

Developed by W.W. Hudson (1982)

SMS

Name.....Sex.....Age.....Date.....

INSTRUCTION:
The following are statements which people commonly use to describe themselves and their activities. Read each statement carefully and then **SHADE "T"** if the statement is **TRUE** or **"F"** if the statement is **FALSE** to indicate how the statement has described what you know about yourself. This is not a test, so there are no right or wrong answers. **Please do not omit any item.**

1.	I prefer to pass by friends, or people I know but have not seen for a long time, unless they speak to me first.....	T	F
2.	I am a good mixer.....	T	F
3.	I do not mind being made fun of.....	T	F
4.	I like to go to parties and other affairs where there is lost of loud fun.....	T	F
5.	It makes me uncomfortable to put on the stunt at a party even when others are doing the same sort of thins.....	T	F
6.	I frequently have to fight against showing. I am bashful.....	T	F
7.	I find it hard to make small talks when I meet new people.....	T	F
8.	I wish I were not so shy.....	T	F
9.	When in a group of people, I have trouble thinking of the right things to talk about.....	T	F
10.	I am likely not to speak to people until they speak to me.....	T	F
11.	In school, I found it very hard to talk before the class.....	T	F
12.	I seem to make friends about as quickly as others do.....	T	F
13.	I love to go to dances.....	T	F
14.	If given the chance I would make a good leader of people.....	T	F
15.	My worries seem to disappear when I get into a crowd of likely friends.....	T	F
16.	I can't remember "playing sick" to get out of something.....	T	F
17.	I do not like to see women smoke.....	T	F
18.	I very seldom have spells of the blues.....	T	F
19.	When I was a child, I didn't care to be a member of crowd or gang.....	T	F
20.	I am often said to be hotheaded.....	T	F
21.	The only miracles I know of are simply tricks that people play on one another	T	F
22.	My plans have frequently seemed so full of difficulties that I have had to give them up.....	T	F
23.	A windstorm terrifies me.....	T	F
24.	I sometimes find it hard to stick up for my right because I am so reserved...	T	F
25.	I strongly defend my own opinions as a rule.....	T	F
26.	I frequently ask people for advice.....	T	F
27.	The future is too uncertain for a person to make serious plans.....	T	F

DEVELOPED BY J. S. WIGGINS (1966)

P S E

Name.....Sex.....Age.....Date.....

INSTRUCTION: The following are statements about physical characteristics. It is not a test, so there are no right or wrong answers. Please read each statement carefully and indicate how it applies to you by **SHADING** only one of the numbers in front of the statement.

The numbers stand for:

1. = Strongly agree
2. = Agree
3. = Somewhat agree
4. = Somewhat disagree
5. = Disagree
6. = Strongly disagree

Please answer ALL the items

1.	I have excellent reflexes	1	2	3	4	5	6
2.	I am not agile and graceful	1	2	3	4	5	6
3.	I am rarely embarrassed by my voice	1	2	3	4	5	6
4.	My physique is rather strong	1	2	3	4	5	6
5.	Sometimes I don't hold up well under stress	1	2	3	4	5	6
6.	I can't run fast	1	2	3	4	5	6
7.	I have physical defects that sometimes bother me	1	2	3	4	5	6
8.	I don't feel in control when I take tests involving physical dexterity	1	2	3	4	5	6
9.	I am never intimidated by the thought of a sexual encounter	1	2	3	4	5	6
10.	People think negative things about me because of my posture	1	2	3	4	5	6
11.	I am not hesitant about disagreeing with people bigger than I	1	2	3	4	5	6
12.	I have poor muscle tone	1	2	3	4	5	6
13.	I take little pride in my ability in sports	1	2	3	4	5	6
14.	Athletic people usually do not receive more attention than I	1	2	3	4	5	6
15.	I am sometimes envious of those better looking than myself	1	2	3	4	5	6
16.	Sometimes my laugh embarrasses me	1	2	3	4	5	6
17.	I am not concerned with the impression my physique makes on others	1	2	3	4	5	6
18.	Sometimes I feel uncomfortable shaking hands because my hand is clammy	1	2	3	4	5	6
19.	My speed has helped me out of some tight spots	1	2	3	4	5	6
20.	I find that I am not accident prone	1	2	3	4	5	6
21.	I have a strong grip	1	2	3	4	5	6
22.	Because of my agility, I have been able to do things that many others could not do	1	2	3	4	5	6

Developed by R. M. Ryckman, M. A. Robins
B. Thornton & P. Cantrell (1982)

I B Q

Name.....Sex.....Age.....Date.....

INSTRUCTIONS

The following are questions about your health. Please answer each question by **SHADING "YES"** in front of the question if is true as it applies to you or **SHADE "NO"** if it is false as it applies to you. This is not a test, so there are no right or wrong answers. Work quickly and ensure that you answer **ALL** the questions frankly.

A. 1.	Do you think there is something seriously wrong with your body?	Yes	No
2.	Does your illness interfere with your life a great deal?	Yes	No
3.	If the doctor told you that he could find nothing wrong with you, could you believe him?	Yes	No
4.	Do you find that you are often aware of various things happening in your body?	Yes	No
5.	Are you sleeping well?	Yes	No
6.	Do you find that you are bothered by many different symptons?	Yes	No
B. 1.	Are you easy to get on with when you are ill?	Yes	No
2.	Does your illness affect the way you get on with your family or friends a great deal?	Yes	No
3.	Are you more irritable towards other people?	Yes	No
4.	Do you often find that you lose patience with other people?	Yes	No
5.	Do you worry a lot about your health?	Yes	No
C. 1.	If you feel ill and someone tells you that you are looking better, do you become annoyed?	Yes	No
2.	Are you more sensitive to pain than other people?	Yes	No
3.	Are you afraid of illness?	Yes	No
4.	Do you think that you worry about your health more than most people?	Yes	No
5.	Do you find that you get jealous of other people's good health?	Yes	No
6.	Do you ever have silly thoughts about your health which you can't get out of your mind, no matter how hard you try?	Yes	No
7.	Are you upset by the way people take your illness?	Yes	No
8.	Do you often think that you might suddenly fall ill?	Yes	No
9.	If a disease is brought to your attention (through the radio, television, newspapers or someone you know) do you worry about getting it yourself?	Yes	No
D. 1.	Do you ever think of your illness as a punishment for something you have done in the past?	Yes	No
2.	Are you bothered by many aches and pains?	Yes	No
3.	Do you think there is something the matter with your mind?	Yes	No
4.	Is your bad health the biggest difficulty of your life?	Yes	No
5.	Do you think that your symptoms may be caused by worry?	Yes	No
E. 1.	Do you have trouble with your nerves?	Yes	No
2.	Do you find that you get anxious easily?	Yes	No
3.	Do you find that you get sad easily?	Yes	No
4.	Do you often find that you get depressed?	Yes	No
5.	Is it hard for you to relax?	Yes	No

F. 1.	Can you express your personal feelings easily to other people?	Yes	No
2.	When you are angry, do you tend to bottle up your feeling?	Yes	No
3.	Do you prefer to keep your feelings to yourself?	Yes	No
4.	Is it easy for you to let people know when you are cross with them?	Yes	No
5.	Is it hard for you to **show** people your personal feelings?	Yes	No
G. 1.	Except for your illness do you have any problem in your life?	Yes	No
2.	Do you have any financial problems?	Yes	No
3.	Do you have family problems?	Yes	No
4.	Would all your worries be over if you were physically healthy?	Yes	No
5.	Do you have personal worries which are not caused by physical illness?	Yes	No
H. 1.	Does your family have a history of illness ?	Yes	No
2.	Do you think you are more liable to illness than other people?	Yes	No
3.	Is it easy for you to forget about yourself and think about all sorts of other things?	Yes	No
4.	If you feel ill or worried, can you be easily cheered up by the doctor?	Yes	No
5.	Do you think other people realize what it is like to be sick?	Yes	No
6.	Does it upset you to talk to the doctor about your illness?	Yes	No
7.	Do you know anybody who has the same illness as you?	Yes	No
8.	Do people feel sorry for you when you are ill?	Yes	No
9.	Do you find that your illness affects your sexual relations?	Yes	No
10.	Do you experience a lot of pain with your illness?	Yes	No
11.	Do you care whether or not people realize that you are sick?	Yes	No
12.	Is it hard for you to believe the doctor when he tells you there is nothing for you to worry about?	Yes	No
13.	Do you often worry about the possibility that you have got a serious illness?	Yes	No
14.	Do you get the feeling that people are not taking your illness seriously enough?	Yes	No
15.	Are you upset by the appearance of your face or body?	Yes	No
16.	Do you frequently try to explain to others how you are feeling?	Yes	No
17.	Are you eating well?	Yes	No
18.	Do you worry or fuss over small details that seem unimportant to others?	Yes	No
19.	Are you always a co-operative patient?	Yes	No
20.	Do you often have the symptoms of a very serious disease?	Yes	No
21.	Do you find that you get angry easily?	Yes	No
22.	Do you have any work problems?	Yes	No

Developed by I. Pilowsky & N. D. Spence (1983)

ACL

Name:_____ Sex:_____ Age:_____ Date:_____

INSTRUCTIONS: The following page contains a list of adjectives. Please read them quickly and SHADE the space beside each one you would consider to be a true description of yourself. Do not worry about duplications and contradictions of some of the adjectives. Work quickly and do not spend too much time on any one adjective. Try to be frank and honest in shading those adjectives which describe you as you really are, not as you would like to be.

- absent-minded 1
- active 2
- adaptable 3
- adventurous 4
- affected 5
- affectionate 6
- aggressive 7
- alert 8
- aloof 9
- ambitious 10
- anxious 11
- apathetic 12
- appreciative 13
- argumentative 14
- arrogant 15
- artistic 16
- assertive 17
- attractive 18
- autocratic 19
- awkward 20
- bitter 21
- blustery 22
- boastful 23
- bossy 24
- calm 25
- capable 26
- careless 27
- cautious 28
- changeable 29
- charming 30
- cheerful 31
- civilized 32
- clear-thinking 33
- clever 34
- coarse 35
- cold 36
- commonplace 37
- complaining 38
- complicated 39
- conceited 40
- confident 41
- confused 42
- conscientious 43
- conservative 44
- considerate 45
- contented 46
- conventional 47
- cool 48
- cooperative 49
- courageous 50
- cowardly 51
- cruel 52
- curious 53
- cynical 54
- daring 55
- deceitful 56
- defensive 57
- deliberate 58
- demanding 59
- dependable 60
- dependent 61
- despondent 62
- determined 63
- dignified 64
- discreet 65
- disorderly 66
- dissatisfied 67
- distractible 68
- distrustful 69
- dominant 70
- dreamy 71
- dull 72
- easy going 73
- effeminate 74
- efficient 75
- egotistical 76
- emotional 77
- energetic 78
- enterprising 79
- enthusiastic 80
- evasive 81
- excitable 82
- fair-minded 83
- fault-finding 84
- fearful 85
- feminine 86
- fickle 87
- flirtatious 88
- foolish 89
- forceful 90
- foresighted 91
- forgetful 92
- forgiving 93
- formal 94
- frank 95
- friendly 96
- frivolous 97
- fussy 98
- generous 99
- gentle 100
- gloomy 101
- good-looking 102
- good-natured 103
- greedy 104
- handsome 105
- hard-headed 106
- hard-hearted 107
- hasty 108
- headstrong 109
- healthy 110
- helpful 111
- high-strung 112
- honest 113
- hostile 114
- humorous 115
- hurried 116
- idealistic 117
- imaginative 118
- immature 119
- impatient 120
- impulsive 121
- independent 122
- indifferent 123
- individualistic 124
- industrious 125
- infantile 126
- informal 127
- ingenious 128
- inhibited 129
- initiative 130
- insightful 131
- intelligent 132
- interests narrow 133
- interests wide 134
- intolerant 135
- inventive 136
- irresponsible 137
- irritable 138
- jolly 139
- kind 140
- lazy 141
- leisurely 142
- logical 143
- loud 144
- loyal 145
- mannerly 146
- masculine 147
- mature 148
- meek 149
- methodical 150
- mild 151
- mischievous 152
- moderate 153
- modest 154
- moody 155
- nagging 156
- natural 157
- nervous 158
- noisy 159
- obliging 160
- obnoxious 161
- opinionated 162
- opportunistic 163
- optimistic 164
- organized 165
- original 166
- outgoing 167
- outspoken 168
- painstaking 169
- patient 170
- peaceable 171
- peculiar 172
- persevering 173
- persistent 174
- pessimistic 175
- planful 176
- pleasant 177
- pleasure-seeking 178
- poised 179
- polished 180
- practical 181
- praising 182
- precise 183
- prejudiced 184
- preoccupied 185
- progressive 186
- prudish 187
- quarrelsome 188
- queer 189
- quick 190
- quiet 191
- quitting 192
- rational 193
- rattlebrained 194
- realistic 195
- reasonable 196
- rebellious 197
- reckless 198
- reflective 199
- relaxed 200
- reliable 201
- resentful 202
- reserved 203
- resourceful 204
- responsible 205
- restless 206
- retiring 207
- rigid 208
- robust 209
- rude 210
- sarcastic 211
- self-centered 212
- self-confident 213
- self-controlled 214
- self-denying 215
- self-pitying 216
- self-punishing 217
- self-seeking 218
- selfish 219
- sensitive 220
- sentimental 221
- serious 222
- severe 223
- sexy 224
- shallow 225
- sharp-witted 226
- shiftless 227
- show-off 228
- shrewd 229
- shy 230
- silent 231
- simple 232
- sincere 233
- slipshod 234
- slow 235
- sly 236
- smug 237
- snobbish 238
- sociable 239
- soft-hearted 240
- sophisticated 241
- spendthrift 242
- spineless 243
- spontaneous 244
- spunky 245
- stable 246
- steady 247
- stern 248
- stingy 249
- stolid 250
- strong 251
- stubborn 252
- submissive 253
- suggestible 254
- sulky 255
- superstitious 256
- suspicious 257
- sympathetic 258
- tactful 259
- tactless 260
- talkative 261
- temperamental 262
- tense 263
- thankless 264
- thorough 265
- thoughtful 266
- thrifty 267
- timid 268
- tolerant 269
- touchy 270
- tough 271
- trusting 272
- unaffected 273
- unambitious 274
- unassuming 275
- unconventional 276
- undependable 277
- understanding 278
- unemotional 279
- unexcitable 280
- unfriendly 281
- uninhibited 282
- unintelligent 283
- unkind 284
- unrealistic 285
- unscrupulous 286
- unselfish 287
- unstable 288
- vindictive 289
- versatile 290
- warm 291
- wary 292
- weak 293
- whiny 294
- wholesome 295
- wise 296
- withdrawn 297
- witty 298
- worrying 299
- zany 300

Appendix 9 CONT
Test Development and Validation Raw Score

SN	Age	Gender	NSII	FNE
1	44	2	103	17
2	31	2	83	15
3	18	2	114	13
4	19	2	161	16
5	20	2	48	16
6	44	2	63	16
7	21	2	94	15
8	28	2	127	17
9	36	2	94	11
10	18	2	84	4
11	28	2	100	16
12	23	2	104	12
13	22	2	96	18
14	30	2	72	13
15	15	2	81	11
16	24	2	112	23
17	20	2	128	18
18	23	2	63	18
19	23	2	98	18
20	26	2	86	8
21	45	2	80	14
22	20	2	85	12
23	19	2	92	12
24	21	2	75	18
25	27	2	89	20
26	26	2	195	19
27	29	2	103	11
28	29	2	103	18
29	29	2	127	17
30	32	2	77	5
31	26	2	152	12
32	23	2	117	10
33	24	2	72	12
34	25	2	72	14
35	26	2	83	10
36	25	2	110	15
37	23	2	81	14
38	30	2	123	17
39	23	2	154	10
40	19	2	199	18
41	45	2	73	13
42	16	2	94	6
43	25	2	93	17
44	44	2	68	18
45	19	2	150	7
46	28	2	69	0
47	25	2	123	17
48	28	2	71	1
49	43	2	60	9
50	36	2	73	10

Appendix 9 CONT
Test Development and Validation Raw Score

51	24	2	68	20
52	26	2	104	20
53	25	2	87	15
54	29	2	87	11
55	35	2	71	16
56	16	2	108	18
57	27	2	94	7
58	40	2	120	7
59	20	2	69	11
60	29	2	95	11
61	30	2	92	9
62	23	2	108	8
63	27	2	117	13
64	16	2	86	13
65	42	2	100	11
66	31	2	88	13
67	25	2	107	17
68	37	2	68	4
69	22	2	69	15
70	27	2	118	16
71	30	2	83	5
72	46	2	77	5
73	23	2	65	15
74	28	2	97	13
75	24	2	64	11
76	21	2	76	14
77	36	2	83	13
78	21	2	121	18
79	48	2	45	14
80	25	2	49	7
81	44	2	104	25
82	46	2	155	25
83	55	2	53	4
84	23	2	60	5
85	28	2	64	17
86	23	2	65	17
87	22	2	85	15
88	19	2	135	15
89	20	2	162	16
90	27	2	130	13
91	25	2	121	19
92	19	2	97	12
93	32	2	61	8
94	30	2	77	13
95	21	2	85	18
96	23	2	72	16
97	22	2	173	11
98	22	2	88	8
99	25	2	103	7
100	45	2	143	14
101	30	1	59	14

102	30	1	68	11
103	42	1	55	17
104	36	1	89	15
105	26	1	93	12
106	27	1	63	7
107	25	1	103	8
108	19	1	99	18
109	36	1	52	11
110	40	1	92	19
111	40	1	82	15
112	21	1	107	22
113	26	1	101	10
114	17	1	98	9
115	19	1	97	0
116	26	1	75	20
117	25	1	66	17
118	36	1	74	15
119	37	1	60	10
120	25	1	102	28
121	20	1	80	12
122	24	1	105	17
123	16	1	88	18
124	26	1	72	22
125	29	1	85	15
126	30	1	85	26
127	50	1	92	13
128	30	1	80	11
129	32	1	78	12
130	23	1	62	11
131	41	1	72	26
132	24	1	98	16
133	19	1	50	16
134	24	1	49	18
135	20	1	146	10
136	28	1	126	10
137	28	1	117	12
138	21	1	121	17
139	27	1	104	20
140	19	1	47	12
141	29	1	123	17
142	20	1	81	13
143	28	1	128	23
144	27	1	83	18
145	16	1	81	17
146	31	1	92	9
147	45	1	76	12
148	37	1	57	22
149	17	1	81	13
150	37	1	95	11
151	42	1	56	15
152	39	1	125	15

Appendix 9 CONT
Test Development and Validation Raw Score

153	29	1	68	8
154	50	1	108	19
155	35	1	82	15
156	42	1	63	10
157	36	1	88	6
158	27	1	103	20
159	43	1	60	4
160	26	1	115	13
161	31	1	95	14
162	47	1	69	15
163	45	1	73	9
164	25	1	50	18
165	35	1	75	16
166	34	1	66	15
167	22	1	105	26
168	25	1	142	10
169	50	1	146	10
170	30	1	184	18
171	28	1	127	16
172	18	1	143	18
173	25	1	117	9
174	30	1	74	8
175	17	1	61	14
176	37	1	75	8
177	26	1	113	16
178	35	1	130	21
179	35	1	99	15
180	38	1	68	6
181	31	1	62	15
182	30	1	67	10
183	23	1	61	15
184	26	1	78	10
185	43	1	58	5
186	18	1	67	7
187	25	1	69	11
188	35	1	138	19
189	28	1	67	9
190	34	1	73	9
191	24	1	72	11
192	45	1	74	7
193	26	1	80	8
194	21	1	122	19
195	34	1	58	11
196	31	1	68	11
197	36	1	69	10
198	38	1	67	10
199	.	1	75	11
200	33	1	74	5
201	23	1	123	23
202	28	1	85	6
203	25	1	96	11

Appendix 9 CONT
Test Development and Validation Raw Score

204	31	1	85	1
205	35	1	56	13
206	25	1	56	2
207	33	1	62	1
208	37	1	62	6
209	36	1	93	4
210	17	1	152	17
211	27	1	106	10
212	23	1	89	20
213	42	1	79	17
214	41	1	76	6
215	42	1	73	7
216	30	1	68	13
217	30	1	74	15
218	36	1	75	11
219	35	1	85	10
220	34	1	84	6
221	22	1	85	16
222	21	1	91	16
223	33	1	113	23
224	30	1	115	18
225	29	1	66	5
226	25	1	63	4
227	33	1	86	13
228	31	1	83	12
229	32	1	59	9
230	23	1	83	10
231	24	1	101	10
232	27	1	80	17
233	39	1	80	18
234	20	1	116	8
235	16	1	94	23
236	23	1	107	19
237	25	1	100	23
238	28	1	157	19
239	27	1	90	14
240	28	1	85	7
241	16	1	67	8
242	18	1	74	7
243	30	1	89	26
244	30	1	102	24
245	16	1	104	10
246	18	1	56	10
247	27	1	96	18
248	21	1	47	8
249	21	1	101	11
250	22	1	87	10
251	22	2	52	2
252	28	2	86	4
253	30	2	67	5
254	26	2	55	13

Appendix 9 CONT
Test Development and Validation Raw Score

255	30	2	66	10
256	28	2	93	19
257	28	2	56	11
258	46	2	68	7
259	27	2	83	1
260	20	2	68	2
261	24	2	101	9
262	17	2	99	21
263	25	2	81	2
264	27	2	75	0
265	18	2	105	21
266	19	2	103	20
267	21	2	90	25
268	24	2	99	17
269	31	2	121	11
270	18	2	58	11
271	21	2	114	17
272	23	2	68	9
273	30	2	85	3
274	44	2	91	8
275	26	2	102	21
276	26	2	92	13
277	23	2	124	28
278	26	2	79	7
279	23	2	81	10
280	20	2	66	11
281	22	2	63	13
282	22	2	102	7
283	42	2	95	16
284	41	2	96	15
285	28	2	96	18
286	21	2	45	11
287	22	2	74	7
288	35	2	72	5
289	31	2	130	26
290	36	2	69	6
291	28	2	93	25
292	28	2	92	21
293	21	2	96	14
294	21	2	100	18
295	21	2	111	9
296	27	2	94	21
297	28	2	99	19
298	27	2	98	22
299	24	2	100	25
300	23	2	56	8
301	45	2	97	12
302	32	2	87	12
303	33	2	75	12
304	20	2	86	15
305	22	2	150	15

Appendix 9 CONT
Test Development and Validation Raw Score

306	18	2	92	16
307	17	2	96	17
308	19	2	81	12
309	20	2	119	17
310	33	2	134	19
311	20	2	68	13
312	20	2	152	10
313	20	2	107	15
314	20	2	66	18
315	22	2	95	18
316	20	2	109	12
317	50	2	95	16
318	34	2	75	14
319	33	2	68	18
320	20	2	133	20
321	18	2	126	12
322	18	2	70	17
323	19	2	143	11
324	16	2	79	17
325	16	2	64	10
326	26	2	103	9
327	34	2	101	12
328	45	2	95	10
329	43	2	121	11
330	33	2	65	17
331	27	2	87	11
332	45	2	117	13
333	37	2	117	16
334	23	2	137	14
335	28	2	71	12
336	17	2	51	14
337	32	2	83	11
338	22	2	141	13
339	23	2	67	11
340	24	2	136	15
341	43	2	101	14
342	23	2	89	17
343	34	2	67	11
344	25	2	70	11
345	42	2	82	16
346	28	2	56	4
347	27	2	97	20
348	28	2	95	12
349	22	2	88	13
350	34	2	75	15
351	22	2	88	17
352	22	2	89	18
353	22	2	78	22
354	23	2	79	13
355	24	2	137	14
356	22	2	114	14

Appendix 9 CONT
Test Development and Validation Raw Score

357	37	2	69	18
358	18	2	50	16
359	20	2	95	15
360	17	2	88	4
361	24	2	84	12
362	20	2	95	8
363	23	2	71	17
364	23	2	56	16
365	26	2	113	17
366	45	2	104	5
367	20	2	95	14
368	19	2	110	15
369	21	2	47	4
370	27	2	83	13
371	26	2	111	12
372	29	2	40	12
373	29	2	130	15
374	29	2	86	17
375	32	2	74	15
376	26	2	58	16
377	23	2	88	18
378	24	2	89	30
379	25	2	54	2
380	26	2	137	15
381	25	2	130	7
382	23	2	66	18
383	30	2	102	17
384	23	2	100	24
385	19	2	74	17
386	45	2	111	15
387	16	2	94	27
388	25	2	63	12
389	44	2	72	10
390	19	2	94	8
391	28	2	95	17
392	25	2	84	16
393	28	2	120	15
394	43	2	128	27
395	36	2	90	22
396	24	2	80	3
397	26	2	101	17
398	25	2	128	17
399	29	2	107	8
400	35	2	119	14
401	16	1	57	10
402	27	1	98	6
403	40	1	70	5
404	20	1	99	14
405	29	1	111	15
406	30	1	105	19
407	23	1	87	11

Appendix 9 CONT
Test Development and Validation Raw Score

408	16	1	127	16
409	25	1	97	14
410	44	1	62	15
411	19	1	113	16
412	28	1	111	13
413	25	1	93	10
414	28	1	69	5
415	43	1	114	10
416	36	1	87	15
417	24	1	118	10
418	26	1	27	9
419	25	1	90	8
420	29	1	84	13
421	35	1	69	10
422	16	1	80	19
423	27	1	59	11
424	40	1	183	15
425	20	1	104	21
426	29	1	57	10
427	30	1	100	18
428	23	1	90	10
429	27	1	80	18
430	16	1	63	15
431	42	1	116	15
432	31	1	55	8
433	25	1	114	17
434	37	1	96	17
435	22	1	104	25
436	27	1	109	14
437	30	1	91	11
438	46	1	84	11
439	23	1	79	13
440	28	1	114	4
441	24	1	88	12
442	21	1	82	14
443	36	1	100	18
444	21	1	80	8
445	48	1	82	15
446	25	1	90	14
447	44	1	80	11
448	46	1	84	10
449	55	1	78	10
450	23	1	81	13
451	28	1	131	18
452	23	1	73	21
453	22	1	56	2
454	19	1	168	13
455	20	1	58	7
456	27	1	73	14
457	25	1	53	17
458	19	1	107	14

Appendix 9 CONT
Test Development and Validation Raw Score

459	32	1	101	18
460	30	1	100	16
461	21	1	61	17
462	23	1	96	2
463	33	1	60	16
464	34	1	81	16
465	25	1	92	13
466	20	1	59	5
467	33	1	66	14
468	20	1	103	20
469	20	1	75	18
470	20	1	99	13
471	45	1	85	11
472	32	1	76	19
473	33	1	95	23
474	39	1	117	15
475	40	1	83	12
476	42	1	150	14
477	18	1	67	7
478	18	1	87	10
479	32	1	138	11
480	20	1	90	12
481	45	1	171	18
482	41	1	91	12
483	33	1	89	12
484	27	1	60	13
485	35	1	78	11
486	33	1	87	16
487	31	1	121	10
488	45	1	75	12
489	20	1	77	16
490	20	1	64	13
491	20	1	72	17
492	20	1	67	8
493	31	1	129	15
494	18	1	145	16
495	19	1	87	30
496	22	1	69	7
497	17	1	54	10
498	16	1	89	4
499	19	1	76	17
500	20	1	73	11

Appendix 10CONT
Raw Score: Phase 2: Assessment Study

SN	AGE	GENDE	NSII	FNE	SMS	ISE	PPA	PSC	Pers. Ac	Irrit.
1	44	2	103	17	13	29	36	35	50	2
2	31	2	83	15	13	33	31	42	47	0
3	18	2	114	13	12	27	36	53	50	2
4	19	2	161	16	14	46	32	28	60	1
5	20	2	48	16	15	45	29	42	56	1
6	44	2	63	16	15	33	36	56	57	1
7	21	2	94	15	18	46	46	30	42	2
8	28	2	127	17	13	45	52	47	50	3
9	36	2	94	11	10	13	40	59	37	0
10	18	2	84	4	9	21	36	54	50	3
11	28	2	100	16	15	31	37	55	45	2
12	23	2	104	12	18	39	40	47	45	3
13	22	2	96	18	12	54	23	43	44	2
14	30	2	72	13	11	36	32	45	45	0
15	15	2	81	11	12	23	36	43	53	1
16	24	2	112	23	18	63	37	32	50	2
17	20	2	128	18	15	51	33	46	46	1
18	23	2	63	18	15	14	29	52	55	0
19	23	2	98	18	12	18	19	35	50	1
20	26	2	86	8	12	11	43	60	37	0
21	45	2	80	14	8	34	31	40	62	0
22	20	2	85	12	10	37	31	36	59	1
23	19	2	92	12	9	20	29	44	62	1
24	21	2	75	18	14	12	41	57	52	0
25	27	2	89	20	8	15	43	61	52	2
26	26	2	195	19	12	22	39	38	57	1
27	29	2	103	11	15	28	39	40	56	2
28	29	2	103	18	12	28	43	44	42	3
29	29	2	127	17	12	35	32	55	46	2
30	32	2	77	5	12	13	41	62	51	0
31	26	2	152	12	17	39	32	42	26	2
32	23	2	117	10	13	58	37	37	30	2
33	24	2	72	12	8	8	49	42	37	0
34	25	2	72	14	11	8	40	40	47	0
35	26	2	83	10	7	9	46	45	44	1
36	25	2	110	15	11	31	31	42	47	3
37	23	2	81	14	12	11	43	64	57	0
38	30	2	123	17	17	50	25	43	34	5
39	23	2	154	10	14	51	39	45	32	1
40	19	2	199	18	14	22	34	35	44	1
41	45	2	73	13	8	29	31	48	57	0
42	16	2	94	6	9	21	40	61	48	0
43	25	2	93	17	17	45	34	42	45	2
44	44	2	68	18	19	43	21	42	35	0
45	19	2	150	7	16	42	34	36	34	3
46	28	2	69	0	10	6	49	60	61	0
47	25	2	123	17	9	40	30	44	45	2
48	28	2	71	1	17	25	55	35	57	0

Appendix 10 CONT
Raw Score: Phase 2: Assessment Study

SN	AGE	GENDE	NSII	FNE	SMS	ISE	PPA	PSC	Pers. Ac	Irrit.
49	43	2	60	9	13	27	39	43	45	0
50	36	2	73	10	11	30	26	40	45	4
51	24	2	68	20	10	14	45	64	50	0
52	26	2	104	20	10	43	39	45	51	1
53	25	2	87	15	14	10	30	48	7	2
54	29	2	87	11	12	23	42	38	45	0
55	35	2	71	16	11	22	42	53	56	0
56	16	2	108	18	15	41	25	35	37	3
57	27	2	94	7	19	16	37	61	53	3
58	40	2	120	7	12	51	41	52	47	0
59	20	2	69	11	11	41	43	48	55	1
60	29	2	95	11	6	17	35	53	56	1
61	30	2	92	9	11	38	35	37	52	0
62	23	2	108	8	11	24	42	39	54	2
63	27	2	117	13	17	36	35	47	44	0
64	16	2	86	13	10	29	41	51	47	1
65	42	2	100	11	17	37	42	56	55	0
66	31	2	88	13	12	28	30	40	48	1
67	25	2	107	17	10	59	33	45	47	3
68	37	2	68	4	19	16	61	37	52	0
69	22	2	69	15	18	45	37	44	48	1
70	27	2	118	16	9	41	39	44	50	3
71	30	2	83	5	12	0	50	59	32	1
72	46	2	77	5	12	7	20	51	55	0
73	23	2	65	15	14	50	40	44	54	0
74	28	2	97	13	15	31	35	46	59	1
75	24	2	64	11	7	20	40	56	55	3
76	21	2	76	14	10	12	45	47	47	0
77	36	2	83	13	15	13	44	33	62	2
78	21	2	121	18	6	16	33	44	52	0
79	48	2	45	14	10	17	31	46	56	3
80	25	2	49	7	10	19	32	46	53	2
81	44	2	104	25	17	42	34	40	55	0
82	46	2	155	25	15	46	35	47	47	2
83	55	2	53	4	12	16	38	64	56	0
84	23	2	60	5	16	18	40	40	32	0
85	28	2	64	17	10	23	33	47	50	2
86	23	2	65	17	12	50	24	41	38	4
87	22	2	85	15	10	51	24	55	42	4
88	19	2	135	15	10	58	29	52	39	1
89	20	2	162	16	8	45	48	38	46	2
90	27	2	130	13	8	60	31	50	60	3
91	25	2	121	19	10	17	31	47	51	0
92	19	2	97	12	9	23	37	58	47	1
93	32	2	61	8	11	21	30	48	50	0
94	30	2	77	13	14	25	21	42	52	0
95	21	2	85	18	11	25	42	50	61	0
96	23	2	72	16	8	24	46	62	37	0
97	22	2	173	11	8	46	29	40	52	2
98	22	2	88	8	14	57	30	42	45	2

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SN	AGE	GENDE	NSII	FNE	SMS	ISE	PPA	PSC	Pers. A	Irrit.
99	25	2	103	7	17	26	30	41	34	1
100	45	2	143	14	14	42	31	35	31	1
101	35	2	103	9	13	33	43	64	56	0
102	37	2	101	12	13	35	36	39	54	1
103	24	2	95	10	15	45	42	42	59	0
104	39	2	121	11	10	36	32	42	48	3
105	27	2	65	17	12	26	44	55	52	0
106	36	2	87	11	17	49	38	47	47	2
107	20	2	117	13	13	46	27	48	32	4
108	40	2	117	16	11	47	32	52	34	5
109	26	2	137	14	11	57	37	47	37	4
110	40	2	71	12	6	28	40	49	47	0
111	19	2	51	14	14	21	39	57	48	3
112	47	2	83	11	12	27	52	47	60	0
113	22	2	141	13	15	44	36	40	45	3
114	16	2	67	11	11	24	34	53	48	1
115	22	2	136	15	13	47	32	43	27	2
116	25	2	101	14	13	42	33	46	50	3
117	28	2	89	17	7	16	47	39	50	0
118	20	2	67	11	7	25	34	50	48	0
119	22	2	70	11	13	49	34	43	50	3
120	22	2	82	16	9	13	55	43	47	1
121	47	2	56	4	13	34	37	48	52	1
122	27	2	97	20	14	44	28	42	50	3
123	40	2	95	12	8	33	34	42	42	3
124	35	2	88	13	11	23	47	50	34	0
125	20	2	75	15	11	52	30	40	39	2
126	22	2	58	16	21	28	46	46	54	2
127	35	2	88	18	12	32	37	47	52	0
128	38	2	89	30	9	65	40	44	24	3
129	28	2	54	2	13	19	41	49	50	0
130	35	2	137	15	12	34	24	40	34	2
131	43	2	130	7	14	40	38	49	42	1
132	18	2	66	18	15	18	44	45	42	2
133	32	2	102	17	11	62	29	50	32	3
134	43	2	100	24	7	26	38	57	57	0
135	21	2	74	17	15	26	43	53	56	1
136	37	2	111	15	9	45	33	38	34	2
137	32	2	94	27	14	52	40	50	50	0
138	30	2	63	12	11	17	41	49	48	0
139	27	2	72	10	11	41	31	50	39	0
140	35	2	94	8	17	35	31	50	53	4
141	31	2	95	17	18	18	42	50	39	1
142	19	2	84	16	13	42	34	55	52	1
143	32	2	120	15	13	23	35	42	58	2
144	23	2	128	27	14	58	37	44	60	5
145	27	2	90	22	10	19	42	53	57	2
146	22	2	80	3	13	12	40	42	54	2
147	29	2	101	17	10	62	35	38	50	2
148	23	2	128	17	10	47	20	42	27	5

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Raw Score: Phase 2: Assessment Study

SN	AGE	GENDE	NSII	FNE	SMS	ISE	PPA	PSC	Pers. A	Irrit.
149	32	2	107	8	14	25	29	34	42	1
150	45	2	119	14	12	25	32	49	53	1
151	42	2	57	10	13	20	38	47	22	0
152	42	2	100	18	14	30	47	45	55	2
153	35	2	90	10	14	55	45	45	49	0
154	16	2	80	18	8	30	40	39	47	0
155	38	2	63	15	14	30	40	40	45	4
156	32	2	116	15	10	29	41	53	42	1
157	30	2	55	8	15	11	36	57	54	0
158	24	2	114	17	12	52	32	40	59	2
159	26	2	96	17	10	44	37	46	50	2
160	23	2	104	25	9	27	36	47	38	2
161	30	2	109	14	16	29	25	36	55	3
162	26	2	91	11	9	23	39	46	45	0
163	22	2	84	11	11	22	35	50	56	0
164	23	2	79	13	10	15	26	33	53	0
165	31	2	114	4	14	32	38	48	40	0
166	30	2	88	12	10	14	39	42	50	0
167	23	2	82	14	10	29	33	55	55	1
168	28	2	100	18	8	11	50	44	45	0
169	26	2	80	8	12	26	43	37	47	1
170	30	2	82	15	16	20	40	44	50	2
171	22	2	90	14	15	30	35	58	57	2
172	21	2	80	11	14	29	35	37	47	0
173	22	2	84	10	14	50	34	46	50	0
174	28	2	78	10	13	40	39	39	54	0
175	26	2	81	13	15	43	44	46	61	1
176	19	2	150	14	18	51	27	47	50	1
177	40	2	67	7	6	23	35	48	57	1
178	34	2	87	10	13	23	33	44	50	1
179	29	2	138	11	17	57	23	57	38	2
180	25	2	90	12	10	22	32	31	59	1
181	32	2	171	18	10	43	38	34	57	0
182	17	2	91	12	5	36	40	39	48	1
183	25	2	89	12	12	28	39	42	50	0
184	34	2	60	13	12	10	21	20	53	1
185	23	2	78	11	17	15	36	44	52	2
186	25	2	87	16	5	52	38	47	47	1
187	32	2	121	10	12	47	35	43	34	2
188	23	2	75	12	11	48	28	43	50	1
189	20	2	77	16	11	36	36	45	62	0
190	35	2	64	13	12	13	39	65	52	1
191	21	2	72	17	11	28	38	47	47	1
192	16	2	67	8	19	49	43	60	60	1
193	16	2	129	15	7	39	35	40	40	3
194	19	2	145	16	12	31	39	47	57	2
195	43	2	87	30	11	46	38	47	37	0
196	31	2	69	7	8	15	39	38	47	2
197	37	2	54	10	13	19	54	57	60	2
198	30	2	89	4	13	17	46	47	56	1

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Raw Score: Phase 2: Assessment Study

SN	AGE	GENDE	NSII	FNE	SMS	ISE	PPA	PSC	Pers. Ac	Irrit.
199	38	2	76	17	12	29	40	46	44	1
200	33	2	73	11	18	35	28	49	57	1
201	30	1	59	14	12	27	37	42	61	1
202	30	1	68	11	14	21	45	63	57	0
203	42	1	55	17	12	24	47	44	48	1
204	36	1	89	15	10	27	32	47	57	0
205	26	1	93	12	9	23	44	50	54	0
206	27	1	63	7	9	33	36	42	57	0
207	25	1	103	8	18	35	32	51	54	2
208	19	1	99	18	13	25	31	51	41	0
209	36	1	52	11	15	29	37	63	57	1
210	40	1	92	19	13	27	36	45	54	2
211	40	1	82	15	16	44	35	49	54	3
212	21	1	107	22	9	40	44	42	50	1
213	26	1	101	10	14	28	50	58	46	2
214	17	1	98	9	11	21	52	60	48	1
215	19	1	97	0	16	29	52	45	59	2
216	26	1	75	20	10	45	40	54	51	2
217	25	1	66	17	10	28	38	40	61	1
218	36	1	74	15	11	26	45	50	57	2
219	37	1	60	10	18	45	29	47	59	1
220	25	1	102	28	11	40	41	49	45	0
221	20	1	80	12	14	29	41	54	47	1
222	24	1	105	17	17	35	43	48	54	3
223	16	1	88	18	7	38	49	54	59	1
224	26	1	72	22	14	28	36	49	45	2
225	29	1	85	15	8	33	35	46	45	1
226	30	1	85	26	13	52	35	42	52	0
227	50	1	92	13	13	23	40	51	59	4
228	30	1	80	11	12	25	43	57	54	0
229	32	1	78	12	14	20	43	50	57	1
230	23	1	62	11	10	41	25	76	54	2
231	41	1	72	26	19	25	38	45	59	2
232	24	1	98	16	14	51	33	39	40	0
233	19	1	50	16	13	17	33	42	36	1
234	24	1	49	18	13	22	42	43	53	2
235	20	1	146	10	7	54	33	37	50	2
236	28	1	126	10	10	49	34	30	25	2
237	28	1	117	12	11	36	36	40	31	2
238	21	1	121	17	10	50	32	45	52	3
239	27	1	104	20	13	23	48	51	50	2
240	19	1	47	12	16	46	49	61	48	0
241	29	1	123	17	10	37	41	42	52	1
242	20	1	81	13	10	28	39	56	61	0
243	28	1	128	23	15	33	35	53	47	0
244	27	1	83	18	16	30	38	55	51	1
245	16	1	81	17	12	49	39	45	40	0
246	31	1	92	9	10	21	41	51	57	0
247	45	1	76	12	11	25	40	54	42	1
248	37	1	57	22	15	28	33	55	52	2

Appendix 10 CONT
Raw Score: Phase 2: Assessment Study

SN	AGE	GENDE	NSII	FNE	SMS	ISE	PPA	PSC	Pers. Ac	Irrit.
249	17	1	81	13	14	48	35	45	48	3
250	37	1	95	11	15	30	46	42	49	3
251	42	1	56	15	10	33	41	50	25	1
252	39	1	125	15	10	25	31	42	42	2
253	29	1	68	8	9	9	38	54	55	0
254	50	1	108	19	9	36	22	45	54	2
255	35	1	82	15	13	19	37	50	36	2
256	42	1	63	10	12	7	35	68	22	1
257	36	1	88	6	11	40	38	49	45	1
258	27	1	103	20	15	43	38	43	51	1
259	43	1	60	4	14	22	36	59	64	0
260	26	1	115	13	10	41	42	49	57	3
261	31	1	95	14	11	48	33	40	46	2
262	47	1	69	15	10	28	47	55	59	1
263	45	1	73	9	17	21	42	52	47	1
264	25	1	50	18	14	43	28	33	36	2
265	35	1	75	16	8	35	32	41	50	2
266	34	1	66	15	14	30	48	50	57	0
267	22	1	105	26	17	38	48	50	40	1
268	25	1	142	10	14	41	38	26	35	1
269	50	1	146	10	10	28	37	55	26	2
270	30	1	184	18	11	31	39	45	59	5
271	28	1	127	16	9	48	35	39	28	3
272	18	1	143	18	12	51	25	37	28	1
273	25	1	117	9	17	50	34	41	25	4
274	30	1	74	8	15	52	48	48	57	0
275	17	1	61	14	12	30	45	64	57	0
276	37	1	75	8	9	37	38	36	54	2
277	26	1	113	16	8	32	36	41	54	1
278	35	1	130	21	15	59	42	41	53	2
279	35	1	99	15	10	41	37	42	45	4
280	38	1	68	6	11	27	40	60	40	1
281	31	1	62	15	10	18	47	62	50	0
282	30	1	67	10	10	27	36	46	39	1
283	23	1	61	15	14	19	43	54	42	4
284	26	1	78	10	11	26	34	38	35	0
285	43	1	58	5	12	24	42	43	47	0
286	18	1	67	7	10	32	38	37	51	1
287	25	1	69	11	13	40	41	49	45	1
288	35	1	138	19	16	51	38	43	33	3
289	28	1	67	9	12	21	37	58	59	0
290	34	1	73	9	12	23	48	58	59	1
291	24	1	72	11	11	16	35	37	54	2
292	45	1	74	7	12	20	37	59	42	1
293	26	1	80	8	13	44	30	29	22	1
294	21	1	122	19	14	46	39	44	52	0
295	34	1	58	11	11	34	50	54	42	2
296	31	1	68	11	14	58	24	42	38	1
297	36	1	69	10	12	40	31	46	48	0
298	38	1	67	10	15	22	41	42	62	1

Appendix 1 CONT
Raw Score: Phase 2: Assessment Study

SN	AGE	GENDE	NSII	FNE	SMS	ISE	PPA	PSC	Pers. A	Irrit.
299	24	1	75	11	10	51	47	47	52	0
300	33	1	74	5	8	31	46	56	34	0
301	40	1	97	12	16	41	46	50	48	3
302	31	1	87	12	10	49	30	38	45	3
303	33	1	75	12	15	23	33	47	53	1
304	20	1	86	15	8	48	34	42	50	2
305	19	1	150	15	13	57	30	41	38	3
306	28	1	92	16	17	50	36	41	59	1
307	30	1	96	17	9	43	35	48	59	4
308	23	1	81	12	10	31	33	44	49	3
309	18	1	119	17	18	29	30	35	32	3
310	33	1	134	19	16	48	32	44	64	2
311	29	1	68	13	9	37	35	47	50	3
312	42	1	152	10	13	55	37	41	40	2
313	30	1	107	15	16	44	36	39	24	3
314	28	1	66	18	10	18	24	38	50	1
315	32	1	95	18	16	26	42	56	57	1
316	18	1	109	12	11	59	30	44	42	3
317	26	1	95	16	14	49	33	46	45	3
318	21	1	75	14	12	47	28	39	45	1
319	28	1	68	18	15	50	30	40	52	2
320	30	1	133	20	14	50	26	41	66	4
321	27	1	126	12	15	52	36	44	32	4
322	24	1	70	17	16	57	23	44	38	2
323	37	1	143	11	11	42	33	43	40	2
324	31	1	79	17	15	50	30	37	45	2
325	40	1	64	10	13	48	31	42	38	3
326	20	1	88	17	13	38	36	33	57	1
327	27	1	89	18	14	39	40	40	59	2
328	24	1	78	22	13	35	31	42	35	4
329	24	1	79	13	11	38	29	47	39	1
330	23	1	137	14	19	44	28	44	53	1
331	26	1	114	14	15	53	31	32	42	2
332	29	1	69	18	14	55	25	38	50	1
333	40	1	50	16	15	28	25	42	42	1
334	31	1	95	15	11	22	31	40	54	2
335	53	1	88	4	15	12	31	51	66	4
336	24	1	84	12	10	29	39	46	42	2
337	24	1	95	8	12	24	45	42	45	1
338	23	1	71	17	9	38	39	48	59	1
339	35	1	56	16	12	35	41	59	48	1
340	24	1	113	17	13	42	35	52	47	5
341	51	1	104	5	9	42	38	48	59	1
342	25	1	95	14	12	42	24	33	39	1
343	27	1	110	15	14	50	32	48	33	1
344	37	1	47	4	14	55	29	32	42	3
345	28	1	83	13	12	30	30	40	35	1
346	27	1	111	12	12	50	32	39	52	2
347	31	1	40	12	10	35	40	47	54	3
348	32	1	130	15	9	38	42	54	35	2

Appendix 1 (CONT
Raw Score: Phase 2: Assessment Study

SN	AGE	GENDE	NSII	FNE	SMS	ISE	PPA	PSC	Pers. Ac	Irrit.
349	16	1	86	17	14	42	42	43	36	2
350	14	1	74	15	10	20	40	42	45	4
351	42	1	57	10	19	20	47	38	38	0
352	23	1	98	6	12	18	43	29	50	2
353	21	1	70	5	6	17	45	44	54	1
354	22	1	99	14	9	27	49	38	63	3
355	30	1	111	15	10	19	43	39	54	2
356	25	1	105	19	12	34	46	40	48	2
357	35	1	87	11	11	28	46	34	59	0
358	29	1	127	16	8	29	36	36	52	1
359	27	1	97	14	13	42	45	35	50	2
360	30	1	62	15	10	25	64	48	52	2
361	21	1	113	16	10	26	40	28	57	1
362	34	1	111	13	9	37	44	35	47	2
363	40	1	93	10	15	46	39	30	46	0
364	25	1	69	5	19	26	49	40	55	0
365	21	1	114	10	9	30	40	38	55	3
366	16	1	87	15	10	29	42	37	53	0
367	45	1	118	10	13	34	49	31	54	3
368	16	1	27	9	13	53	42	42	51	1
369	21	1	90	8	13	7	37	31	54	2
370	18	1	84	13	11	30	42	37	47	0
371	42	1	69	10	8	17	46	52	50	2
372	30	1	80	19	10	37	37	36	33	1
373	29	1	59	11	17	24	52	43	59	2
374	25	1	183	15	18	51	45	37	47	1
375	21	1	104	21	14	60	42	33	36	2
376	31	1	131	18	12	44	30	45	57	1
377	29	1	73	21	16	18	42	61	59	0
378	33	1	56	2	11	0	47	65	62	0
379	25	1	168	13	13	44	33	39	52	0
380	22	1	58	7	15	8	32	50	57	0
381	20	1	73	14	16	35	42	49	53	0
382	31	1	53	17	9	55	43	57	48	2
383	28	1	107	14	12	38	36	43	52	5
384	30	1	101	18	10	53	34	42	33	3
385	21	1	100	16	16	37	41	47	52	1
386	23	1	61	17	15	12	50	47	54	1
387	34	1	96	2	17	9	43	51	57	2
388	25	1	60	16	11	45	29	55	54	0
389	40	1	81	16	8	25	46	55	52	0
390	23	1	92	13	17	27	38	46	40	1
391	35	1	59	5	13	29	48	57	64	0
392	29	1	66	14	12	30	31	53	48	0
393	28	1	103	20	13	21	49	49	59	3
394	21	1	75	18	17	55	32	37	64	2
395	30	1	99	13	12	54	35	42	60	3
396	53	1	85	11	12	55	33	49	67	4
397	34	1	76	19	15	52	37	43	52	3
398	24	1	95	23	13	50	38	54	65	2

Appendix 1(c)CONT
Raw Score: Phase 2: Assessment Study

SN	AGE	GENDE	NSII	FNE	SMS	ISE	PPA	PSC	Pers. Ac	Irrit.
399	. 28	1	117	15	16	48	36	40	59	2
400	. 21	1	83	12	8	49	36	42	59	2

Appendix 13

Management Group: Pre-Treatment raw score

SN	Age	Gender	Tt.. Cor	Pre-Tre	NSII	FNE	SMS	ISE	PPA	PSC	Pers.A	Irrit
1	26	1	1	1	195	19	12	22	39	38	57	1
2	19	1	1	1	150	14	14	51	27	47	50	1
3	25	1	1	1	168	13	10	44	33	39	52	0
4	23	1	1	1	137	14	15	44	28	44	53	1
5	26	1	1	1	152	12	17	39	32	42	26	2
6	22	2	1	1	136	15	15	47	32	43	27	2
7	19	2	1	1	161	16	14	46	32	28	60	1
8	22	2	1	1	173	11	8	46	29	40	52	2
9	19	2	1	1	145	16	11	31	39	47	57	2
10	18	2	1	1	143	18	17	51	25	37	28	1
11	20	1	2	1	146	10	19	54	33	37	50	2
12	25	1	2	1	142	10	17	41	38	26	35	1
13	19	1	2	1	150	15	10	57	30	41	38	3
14	33	1	2	1	134	19	8	48	32	44	64	2
15	16	1	2	1	129	15	12	39	35	40	40	3
16	20	2	2	1	152	16	10	45	48	38	46	2
17	19	2	2	1	150	7	16	42	34	36	34	3
18	20	2	2	1	128	18	15	51	33	46	46	1
19	25	2	2	1	127	17	13	45	52	47	50	3
20	25	2	2	1	123	17	9	40	30	44	45	2
21	23	1	3	1	154	10	14	51	39	45	32	1
22	23	1	3	1	141	13	14	44	36	40	45	3
23	19	1	3	1	135	15	10	58	29	52	39	1
24	21	1	3	1	121	18	15	16	33	44	52	0
25	32	1	3	1	121	10	12	47	35	43	34	2
26	21	2	3	1	122	19	12	46	39	44	52	0
27	29	2	3	1	129	16	19	29	36	36	52	1
28	16	2	3	1	127	9	10	53	42	42	51	1
29	27	2	3	1	126	12	16	52	36	44	32	4
30	30	2	3	1	133	20	10	50	26	41	66	4

Appendix 12

Management Group: Post Treatment raw Score

SN	Age	Gender	Tt. Con	Post.T	NSII	FNE	SMS	ISE	PPA	PSC	Pers. A	Irrit.
1	26	1	1	2	56	11	13	38	36	57	48	3
2	19	1	1	2	85	25	17	38	31	45	36	2
3	25	1	1	2	72	10	9	38	38	48	48	3
4	23	1	1	2	77	14	16	25	32	48	57	0
5	26	1	1	2	62	5	11	24	38	54	53	3
6	22	2	1	2	60	22	11	26	45	41	45	2
7	19	2	1	2	82	6	15	27	29	57	44	1
8	22	2	1	2	76	17	18	34	46	42	42	0
9	19	2	1	2	69	18	11	24	36	51	52	2
10	18	2	1	2	54	4	12	48	45	38	59	0
11	20	1	2	2	110	30	19	53	40	34	35	1
12	25	1	2	2	80	10	11	24	26	50	53	0
13	19	1	2	2	100	13	14	37	38	45	57	2
14	33	1	2	2	112	12	14	28	37	43	57	0
15	16	1	2	2	113	11	17	31	34	35	57	1
16	20	2	2	2	82	9	12	24	34	42	51	0
17	19	2	2	2	174	27	17	42	24	35	55	1
18	20	2	2	2	101	5	11	15	44	45	46	1
19	25	2	2	2	88	21	15	36	43	45	55	1
20	25	2	2	2	89	14	10	34	37	39	47	1
21	23	1	3	2	96	7	8	40	31	48	51	2
22	12	1	3	2	91	11	11	29	43	39	61	2
23	19	1	3	2	85	8	11	25	42	50	61	0
24	21	1	3	2	107	11	10	31	44	42	53	3
25	32	1	3	2	85	13	15	35	41	43	58	2
26	21	2	3	2	95	9	16	22	37	48	42	5
27	29	2	3	2	94	23	13	23	37	45	59	3
28	16	2	3	2	103	11	9	19	37	58	67	4
29	27	2	3	2	129	9	10	20	49	48	47	4
30	30	2	3	2	93	10	10	35	32	46	52	3