

CHAPTER ONE

INTRODUCTION

Within the human-environment system, tight links exist between action and perception both within an individual and between several individuals. Human beings are social creatures that share their understanding of the world using verbal communication and non-verbal cues such as gestures, facial expressions and postures. Inability to communicate their needs to others makes their lives lonely and devoid of the basic necessities of warmth and nurturance that social relation brings (Lieberman, Derisi & Mueses, 1989). Thus, social interaction plays important roles in the physical as well as psychological well being of human being. In addition, Higgins & Parsons (1983) are of the opinion that social interaction is a form of direct experience by which people learn what others are like. This implies that the more interaction the individual has with others in a social context, the more motivated and practical he or she should become at understanding the causes of their behavior. By this, social well-being and self-development will be guaranteed. However, there are some individuals who are incapable of initiating or maintaining social interaction due to one inhibition or the other; hence unable to meet basic needs of life through this interaction. These individuals avoid performing certain actions in the presence of others for fear of humiliating themselves. They avoid social situations and exhibit nervousness, fear and apprehension in their interactions with others in social settings. Individuals who exhibit this behaviour are said to be socially anxious.

Social anxiety is often considered normal since almost all human beings feel it in varying situations and sometimes overcome it. For instance, it is natural to feel self-conscious, nervous, or shy in front of others at times. Anyone can have a racing heart, sweaty palms, or fluttering

stomach when trying out for chorus, asking someone on a first date, or giving a class presentation. Most people manage to get through these moments when they need to. However, Turk, Heimberg & Hope (2001) are of the opinion that there are some people whose level of social anxiety impairs their daily functioning in certain areas of their lives. It can be so unbearable that they might feel too nervous to give answers in class, make public speech, make eye contact with classmates in the hallway, or avoid chatting with others. They may be lively, energetic, amusing and generous when they are at ease. They are also found to view others as judging, criticizing or rejecting thereby lose their identity and have low quality of life. (Safren, Heimberg, Brown & Holle, 1997).

1.1. Background to the study

The first mention of social phobia came up in early 1900s when Marks (1969), a British Psychiatrist, posited that social phobia was a separate entity from other phobias. Attention in form of research and treatment was however given to this disorder after Joseph Wolpe's extensive work on Systematic Desensitization. The idea of separating social phobia from other phobias like agoraphobia was accepted by the American Psychiatric Association (APA) and was officially included in the third edition of the Diagnostic and Statistical Manual of Mental Disorder (DSM-III; APA, 1980). This edition defined social phobia as a persistent fear of finding oneself in a situation where one is subjected to scrutiny by others and that one's behaviour might lead to embarrassment or humiliation. Over the years, this definition has been modified in light of the increase in knowledge of the various forms, symptoms, manifestation and problems associated with the condition (Schneier, 1991). Research has revealed that social phobia is a significant mental health problem that can be quite incapacitating. In view of this trend, the

DSM-IV (APA, 1994) Anxiety Disorder Work Group gave social phobia the parenthetical name of **Social Anxiety Disorder** (SAD) in order to communicate that it is a pervasive and impairing disorder than implied by the label social phobia (Liebowitz, Heimberg, Fresco, Travers & Stein, 2000). Their recommendation is that social phobia could be replaced by the term Social Anxiety Disorder in order to reflect the nature and scope of this disorder.

Thus, social anxiety disorder, also known as social phobia, is a diagnosis within psychiatry and other mental health professions referring to excessive long-lasting social anxiety causing relatively extreme distress and impaired ability to function in at least some areas of daily life (Wikipedia, 2007). Diagnostic and Statistical Manual (2000) of the American Psychiatric Association's defined social anxiety disorder as:

- A. A persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others.

The individual fear that he or she will act in a way (or show anxiety symptoms) that will be embarrassing and humiliating.

- B. Exposure to the feared situation almost invariably provokes anxiety, which may take the form of a situationally bound (or situationally pre-disposed) Panic Attack.
- C. The person recognizes that this fear is unreasonable or excessive.
- D. The feared situations are avoided or else are endured with intense anxiety and distress.
- E. The avoidance, anxious anticipation, or distress in the feared social or performance situation(s) interferes significantly with the person's normal routine, occupational (academic) functioning, or social activities or relationships, or there is marked distress about having the phobia.

F. In individuals under age 18 years, the duration is at least 6 months.

G. The fear or avoidance is not due to direct physiological effects of a substance (e.g., drugs, medications) or a general medical condition not better accounted for by another mental disorder.

Although this is a good descriptive language for the definition of social anxiety disorder, but it could be more direct and precise. For instance, the reference in "B" to a situationally bound or situationally pre-disposed Panic Attack is confusing, and for the most part, inaccurate. This is because the use of the term "Panic Attack", (that is heart attack, dying etc.) which is the name of a separate anxiety disorder, is confusing and can prevent a proper diagnosis from being made. This researcher opined that individual with social anxiety disorder may not experience "panic" attacks, which, by meaning precipitate feelings of a medical attention but may experience "anxiety" attacks that are situational bound. This shows that DSM definitions and inclusion criteria for this disorder should be continually subjected to revision for a detailed description of the disorder.

The experience of social anxiety is commonly described as having three subscales:

- a) Physiological component: these are physiological consequences resulting from imagined or real social situations. It involved sweating, blushing, increased heart rate etc.
- b) Cognitive/perceptual component: this reflect the belief that one may be judged negatively, looking for signs of disapproval, excessive self- consciousness and negative self- appraisal in social functioning.
- c) Behavioural component: this component is expressed in form of behavioural inhibition like avoiding a situation (Beidel, Turner, & Dancu, 1985; Wikipedia, 2007).

The disorder was thought to be relatively rare but the opposite was instead true. It has been found to be a common disorder but many were afraid to seek clinical help, leading to an underestimation of the problem. The National Comorbidity Survey of over 8,000 American Correspondents in 1994 revealed a 12-month and lifetime prevalence rates of 7.9 percent and 13.3 percent making it the third most prevalent psychiatric disorder after depression and alcohol dependence and the most apparent of the anxiety disorders (Bruce & Saeed, 1999). Also, a cross-sectional survey of students at the University of Ibadan by Bella & Omigbodun (2008) revealed a lifetime and 12-month prevalence rates of 9.4 and 8.5% respectively. According to Velting & Albano (2001), the onset of social anxiety disorder is in the pre- adolescence and adolescence period.

Adolescence is the developmental period of transition from childhood to early adulthood that is characterized by profound physical (pubertal), cognitive (social cognition) and socioemotional (peers, families etc) developmental changes. There are varying opinions about the age span in adolescence. According to Santrock, (1999) adolescence is entered at about 10 to 12 years of age and exited at 18 to 22 years of age. It is a time of identity formation, evaluation, decision making, commitment and carving out a place in the world. On the other hand individuals during this period can also experience anxiety, psychopathology (alcohol and drug abuse), identity confusion and crisis as new experiences and developmental tasks appear. Roediger, Capaldi, Paris, Polivy & Herman (1996) reported that the end of adolescence is difficult to pinpoint, but that it is usually marked by social and cultural responsibilities such as marriage, parenting, or work. They also said that the end of adolescence is specified only loosely by the adoption of adult roles and responsibilities and may vary widely. Today's adolescents face demands and expectations, as well as risks and temptations, that appear to be more numerous and complex

than did adolescents only a generation ago (Feldman & Elliott, 1990). Parents' involvements in arranging social interactions diminish by early adolescence (Lerner, Lerner, vonEye, et al 1996). When this responsibility is added to the daily tasks of these young adolescents for some, it may be stressful. According to Velting & Albano (2001), such demands when combined with cognitive advancements can set the stage for the emergency of social anxiety. Peer relationships appear to be instrumental in facilitating adolescents' sense of personal identity and increasing their independence from family influences. Adolescent values the acceptance of his or her peer group and any rejection may ultimately lead to social anxiety (La Greca & Harrison, 2005). Any factor, that inhibit adolescents' interpersonal functioning represent a critical area for clinical and developmental investigation and people with social anxiety develop substantial functional disability. They suffer impairment in social functioning, meeting educational goals, vocational achievement, maintaining employment, financial security and developing social and personal relationships (Jaffe-Gill, Smith, Larson & Segal, 2006 ; Glickman & La Greca, 2004). There is evidence that 50% of patients with social anxiety have tried alcohol to relieve anxiety (Greist, 1995). Other comorbidity such as schizophrenia, substance abuse, depression, higher lifetime rates of suicide attempts, low quality of life have been found (Charney, 2004). People with social anxiety may be unable to date or maintain romantic relationships. (Magee, Eaton, Wittchen, et.al, 1996).

Thus, the effects of social anxiety may vary according to the level in which it is a problem to individual. For those with mild to moderate levels, they tend to overcome it as they warm up to the social situation. However, for those with high levels of social anxiety it is an ongoing problem with apparent physical and emotional consequences.

From the information contained in the literature above, it can be inferred that adolescents in general are faced with many developmental issues including social anxiety that require investigation and intervention. Their health provides the foundation for adult health status. Life-long patterns of healthy behaviours are established at this time. Unhealthy adolescent behaviours can become long-term risk factors for chronic psychological conditions in adulthood. This study, therefore, focuses on adolescents who are going through the most critical period in life.

1.1.1. Types of social anxiety

For diagnostic purposes, two types of social anxiety have been distinguished: specific or non-generalized social phobia and generalized social fear (DSM-IV, 1994).

The generalized subtype consists of individuals who present social fears in most social situations. For this individual, the problem affect most situations involving interaction with others while the non-generalized or specific subtype consists of individuals who do not fear most situations but only specific situations (Hofmann & Roth, 1996; Hofmann, Gerlach, Wender & Roth, 1997). The problem is confined and limited to a few situations such as speaking in public (the most common specific social phobia) or eating in public.

Individuals with generalized social phobia fear a variety of social interaction because of their concern about being embarrassed by performing inadequately in the presence of others. According to Eng, Heimberg, Coles, Schneier & Liebowitz (2000), people with generalized social anxiety tend to fall into three categories:

1. Those that may fear one or two relatively specific situations, such as performing a complex motor behaviour that would be visibly disrupted by lack of concentration such as writing, or eating in the presence of others
2. Those that have moderate anxiety about a variety of social situations such as dating, job interview, participating in meetings and others.
3. Those who have severe fear of many social situations and most social contacts with others.

In most cases, the feared social situations may be avoided or endured despite intense anxiety. Difference between the two subtypes have been found in self-report measures (Hofmann & Roth, 1996), age and mode of onset (Stemberger, Turner, Beidel & Calhoun, 1995), psychophysiological response during exposure (Hofmann, Newman, Ehlers & Roth, 1995) and degree of cognitive interference during a modified stroop color – naming test (McNeil, , Reis, Taylor, et al, 1995).

1.1.2. Symptoms of Social Anxiety

Based on the varying definitions of social anxiety disorder, researchers have identified certain symptoms that characterize this condition and are categorized into: Behavioural symptoms, cognitive symptoms, physiological symptoms and affective/emotional symptoms.

Cognitive Symptoms: These symptoms reflect the excessive self-consciousness and irrational belief system of the individual with this disorder. They experience dread over how they will be viewed to others. They may be overly self-conscious, pay high self-attention after the activity, or have high performance standards for themselves. The sufferers attempt to create a well mannered impression on others but believe they lack social skills and will be

unable to do so . Before the potentially anxiety provoking social situation, sufferers may deliberate over what could go wrong and how to deal with each unexpected case. They may have the perception that they performed unsatisfactorily after the events. These negative thoughts may extend for weeks or longer ([http://www.social anxiety](http://www.socialanxiety.org)).

Physiological symptoms: These are the physiological consequences arising from real or imagined social interactions. According to Furmark (2006), adults facing an uncomfortable situation may weep, experience excessive sweating, muscle tension, increased heart rate, shaking, nausea, and palpitations as a result of the fight or flight response. The amygdale, a part of the limbic system of the brain has been found to be hyperactive when confronted with social interaction. On the other hand, children with social anxiety may display tantrums, crying, clinging to parents and shutting themselves out.

Affective/Emotional symptoms: According to Butler (1995), socially anxious people feel ashamed and embarrassed as if it was their fault and they were to be blame for not having overcome the problem. They also experience feelings of inferiority, frustration, sadness or depression, nervousness and apprehension. Other symptoms include over-sensitivity to criticism and low self-esteem. Social anxiety disorder is an all encompassing collection of symptoms that manifests itself in mind, body and behavior. Each of these symptoms reinforces one another. The symptoms of social anxiety presented above are not the only ones and social anxiety is also not the only reason for these symptoms. Thus, it does not mean that all these symptoms must be present for someone to be labeled socially anxious.

1.1.3. Social Anxiety Diagnostic Criteria

According to DSM-IV, social anxiety disorder is diagnosed based on the fulfillment of the following criteria (APA, 1994).

- i. The person has a marked and persistent fear of one or more social or performance situations in which she or he is exposed to unfamiliar people or possible criticism from others. The individual fears she/he will act in a way or show anxiety syndrome that will be humiliating. For children, the fear should be persistent not only with interacting with adults, but more importantly, their own peers as well.
- ii. The exposure to the feared situation perpetually initiates anxiety that may ultimately lead to a panic attack. With children, anxiety may be expressed in various ways such as crying, tantrums, freezing or shying away from the social situation being presented.
- iii. The person is able to recognize the fear as excessive and even unreasonable. This may be absent in children
- iv. The feared situations are completely avoided, or carried out with great distress or anxiety.
- v. The avoidance, anxious anticipation or distress of the feared situation begins to, or has been, interfering with the person's normal life, occupation, activities, relationships etc.
- vi. If the person is under 18 years of age, the problem should last for at least six months.
- vii. The fear or avoidance of the situation may not be attributed to any other physiological effects of a substance (e.g. drug abuse) or medical conditions and is not better accounted for by another mental disorders (e.g. panic disorder with or without agoraphobia, separation anxiety disorder, body dimorphic disorder, pervasive development disorder, schizoid personality disorder).

- viii. If a general medical condition or another mental disorder is present, the fear in one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others is unrelated to it; for example, the fear is not of stuttering; trembling in persons with Parkinson disease, or exhibiting abnormal eating behavior in persons with anorexia nervosa or bulimia nervosa.
- ix. The anxiety is specified as generalized if the fear includes most social situations; also consider the additional diagnosis of avoidant personality disorder.
- x. Associated features include depressed mood; somatic; sexual dysfunction; addiction; and anxious, fearful or dependent personality (DSM-IV-TR APA).

1.1.4. Situations that Elicit Social Anxiety

Social anxiety disorder can be triggered by a wide variety of situational cues. The most common situations that can elicit social anxiety disorder in individuals include:

- i. Speaking in public,
- ii. Writing in public
- iii. Eating and drinking in public,
- iv. Being in the midst of crowd,
- v. Use of public toilets,
- vi. Dating,
- vii. Dealing with authority figure,
- viii. Meeting new people,
- ix. Being watched doing something,
- x. Being teased,

xi. And using public telephone.

i. Speaking In Public:

This is the most common specific social situation cues that can elicit fear in an individual. The fear of speaking in public can be a significant problem for those whose work or study requires participation in group discussions and/ or giving presentations.

The symptoms of this fear include: avoidance of the events, physical distress, nausea, feeling of panic, anxiety at the event, anxiety at the thought of the event, rapid heart rates, sweaty palms, shaking hands, trembling, dry mouth, tight throat, the feeling of nervousness and being embarrassed (CTRN, 2005).

Public speaking fear is all about the individual. (1) What if I choke? (2) what if I mess up? (3) what if I do not remember? (4) I could be boring or funning looking. (5) have my dress rip across the back? (6) what will people think about my scars me generally? (7) I have no confidence in my message. (8) the sight of camera makes my toes curl. (9) I lose control over my body during public speaking. (10) my mouth gets dry during public speaking. (11) my voice quivers. (12) I sweat. (13) my heart rate increases (14) I become forgetful. (15) I need to prepare for hours for every few minute of public speaking. (16) I fear people will laugh at me. (17) I think I sound foolish. (18) people will see how nervous I am. (19) I won't be able to answer people's questions. (20) I will freeze. It is believed that it affects at least 75% of people in America. This phobia can sometimes be avoidable but depending in the individual's occupation, it may have to be overcome. Oftentimes, anxiety and or speech disorders may accompany it (Glossophobia) (CTRN, 2005). Individuals with speech fear may be able to function well in front

of a group but if they have to speak in front of that group, then they become very nervous and have problems functioning.

Causes: Probably the most common cause of a fear of public speaking is some sort of traumatic event. Another possible cause may be the association of public speaking to another traumatic event. Sometimes this association may not be a personal experience of the victim, but may still cause the person to have the fear. Such association may be made through seeing movie or hearing stories from others (CTRN, 2005). Other names given to this fear include stage fright, speech anxiety, shyness, performance anxiety or speech phobia and glossophobia. This is American's greatest fear which can often affect daily lives (CTRN, 2005)

Treatment: Types of therapy that have been used to treat individuals with fear of public speaking include:

(a) Systematic desensitization—process of breaking the associations from the fears (CTRN, 2005)

(b) Cognitive therapy- changing the individuals' ways of thinking to overcome their fear (CTRN, 2005).

Exposure therapy- the individual is surrounded by their feared situation or stimulus (CTRN, 2005).

ii. **Eating and Drinking in Public:**

This is also one of the anxiety-provoking social situations. Individuals who suffer fear of eating in public are concerned that they will spill their food or eat messily, that their hand will shake, that other people will notice and evaluate them negatively (Schneier & Welkowitz, 1996). They also have the underlying fear of disapproval and ultimately of rejection. The individual is afraid

of embarrassing himself or herself. He or she may ask such questions as what if (a) I drop food on myself ? (b) I get diarrhea from eating ? etc. Fear of eating in public is usually accompanied with an eating disorder, such as anorexia nervosa, bulimia or compulsive overeating (Medina, 1995). Oftentimes, eating disorders lead to phobias or vice versa. This fear has been found to often come with Agoraphobia (Medina, 1995).

Symptoms: Sufferers of public eating often avoid certain foods that may be more difficult to eat.

Causes: There are no known causes of this social anxiety. One main reason for this fear is that people are afraid of becoming embarrassed. It is believed that this fear may begin in late childhood.

Treatment: Learning of new skills to be able to reduce and manage anxiety better. (a) The skills include relaxation breathing techniques and self talk ; (b) Individual needs to learn how to challenge the irrational thinking; (c) He or she needs to develop a plan of exposing him or herself to the situations in a controlled manageable way, while using his or her anxiety management skills and while challenging the irrational thinking.

iii. Being in the midst of Crowds:

Being in the midst of crowd can elicit fear in some individuals. The simple act of looking at the strange and/or unfamily faces can elicit fear in some individuals.

Symptoms: The most common symptoms include: breathlessness, excessive sweating, nausea, dry mouth, feeling sick, heart palpitations, inability to think or speak clearly (Phobia, 1994), fear of becoming mad or having a feeling of losing control, experience of a panic or anxiety attack (<http://vault>, 2007).

Causes: The cause of fear of crowds has a link to the individual's parents' that is, it can be passed on genetically and biologically. Another cause can be conditioning from a bad experience from the past. Memories of the experiences often times trigger the anxiety.

Treatment: The way to treat this fear depends on the time and resources available. Methods include hypnosis where therapist allows a person to clear his or her mind and rid it of the bad thoughts. Another more recent treatment is energy psychology. This technique is similar to acupuncture but without the needles. It uses energy as the focus, instead of focusing on a person's behavior or emotions (Phobia, 1994).

iv. **Writing in Public, (or fear of Examination):**

For some people, writing examinations can be anxiety provoking. They may worry about an examination for days before it is to take place and/or during the examination. They may experience negative thoughts when taking the examination and also experience unpleasant physical symptoms like sweating and shaking hands which may prevent them from performing to the best of their ability. The individual feels overwhelming fear and becomes uncomfortable even if he or she is not writing. The constant fear of humiliation and possibility that he or she may have to write in public exists always.

Causes: This anxiety is passed on genetically. The cause can also be through classical conditioning, according to learning theory. A similar situation of embarrassment or humiliation can trigger the panic and fear of another incidence.

Treatment: Many types of treatment exist of fear of writing in public.

Techniques: Muscle relaxation and diaphragmatic breathing with the help of the therapist. Most importantly, the person must be free from fear and be able to write in the presence of others. This will enable him or her to build confidence in him or herself, and strong ability to write again. By increasing the number of words written in a certain time and decrease the number of negative thoughts about oneself the fear may be eliminated.

v. Use of Public Restrooms: This is another anxiety provoking social situation that can elicit fear in some individuals. This can also be called Paruresis or Bashful Bladder Syndrome (BBS). It is more common amongst men. Such men usually dislike using urinals when other men are present as they fear being unable to urinate. They use toilet stalls instead in order to have privacy and avoid possible negative evaluation.

Symptoms: Symptoms go beyond just urinating in public restrooms but also include constant worrying about the next time one will have to enter and use a public restroom. They feel uncomfortable using public restrooms. There is also the fear of the germs in the public restroom.

Causes: A possible cause of this anxiety is a traumatic childhood experience that is still thought of on a regular basis and later causing Bashful Bladder Syndrome (BBS). However the main cause of this anxiety is the fear of germs and diseases that live in public restroom (Kimberly – Clark, 2001).

Treatment: The use of cognitive restructuring technique, a cognitive-behavioural therapy that will help the individual to overcome his cognitive distortion can be applied. Another cognitive-behavioural technique that can be used is exposure therapy. In this therapy, the individual will attempt to urinate in more and more stressful situations. The individual may need to consume a

lot of fluid before the practice session so that the need to urinate is high at the time of session (Paruresis, 2011).

vi. Dating:

Dating relationship has been found to have significant implication for adolescent's psychosocial functioning. According to Collins (2003), socially anxious individuals who fear meeting people, asking for dates and/or divulging personal information are at a significant disadvantage in the dating game. Grover & Nangle, (2003) are of the view that many adolescents report distress and uncertainty regarding how they should behave in romantic relationship. It is therefore not surprising that some level of dating anxiety is normative. However, the degree to which high levels of dating anxiety interfere with adolescents' ability to initiate and maintain successful romantic relationship is an important issue. Once dating anxiety develops, it could interfere with dating behavior, resulting in delayed development of intimate romantic relationships.

Symptoms: They include nervousness or worry about dating interactions, lack of concentration during discussion, agreeing to every suggestion of the partner, avoidance of dating and/or infrequent dating.

Causes: Adolescents' body image and appearance may contribute more to dating anxiety than to general social anxiety (Glickman & La Greca, 2004). It is likely that aversive dating experiences, such as dating violence, might contribute to adolescents' dating related anxiety. Anxiety in the presence of other-sex peers may inhibit the development of appropriate dating and romantic relationships at the appropriate age (Glickman & La Greca, 2004).

Treatment: Training individuals with dating and assertiveness skills may reduce or eliminate this fear.

vii. **Dealing with Authority Figures:**

The commonly feared authority figures of adolescents include parents (especially authoritative parents), bosses, teachers, police officers and professionals such as doctors and others. The strength and authority they have on individuals may cause anxiety when dealing with them. These high-strength authority figures may be powerful, attractive, esteemed and experts who usually appear to be more discerning and difficult to please. This in turn may invoke feelings of inadequacy on the part of the actor through the process of social comparisons. The actor, while trying to impress these figures is more likely to entertain doubts and so experience social anxiety especially when they are present with the actor (Schlenker & Leary, 1982).

Causes: One of the major causes may be a perceived sense of inadequacy on the part of the actor. In some cultures, it may be due to socialization. In other words, the individual might be taught to have high regard for those in authority. This in some individuals may lead to social anxiety.

Treatment: Training individuals in social skills that will give them the enablement to boldly and humbly express themselves will reduce or eliminate this fear. The use of assertiveness training is highly recommended.

1.1.5 Causes of Social Anxiety

Research into the causes of social anxiety encompasses multiple perspectives from neuroscience to sociology. However, scientists are yet to pinpoint the exact causes of social anxiety. Multiple causes are suspected for social anxiety disorder. These causes can be grouped under the

following: Genetic (Biological), Neurobiological, Environmental/ Social, Psychological and Ethological/ Psychobiological causes.

i. **Genetic Causes**

The genetic contribution to the development of social anxiety disorder has been well researched. Several family and twin studies indicate a genetic predisposition for the development of this disorder. According to Millon, Blaney & Davis (1999), the estimated heritability for social phobia ranges from 12 to 60% depending on the particular study. Behavioural inhibition is believed to be the biggest inherited risk factor (Helpguide.org, 2007). Behaviourally inhibited infants are found to be upset easily by things that are unfamiliar and are likely to develop into fearful children who will, in adolescent, show an increased risk for this disorder (Schwartz, Snidman & Kagan, 1999). Also, several studies indicate an increased risk of developing social anxiety disorder in persons whose relatives have the condition (Mannuzza, Schneier, Chapman, Liebowitz, Klein & Fyer, 1995; Stein, Chartier, Hazen, Kozak, Tancer, Lander, Chubaty, Furer & Walker, 1998; Lieb, Wittchen, Hofler, Fuetsch, Stein & Merikangas, 2000; Fyer, Mannuzza, Chapman, Liebowitz & Klein, 1993).

The results of some of these studies has shown that there is a two to three fold greater risk of having social anxiety if a first –degree relative also has this disorder. This may be a result of genetics and/or children acquiring social fears through processes of observational learning. A cognitive dimension (as measured by the fear of Negative Evaluation Scale) showed that the experience of social anxiety was moderately heritable (Stein, Lang & Livesley 2002). Preclinal studies have also suggested that specific genes may contribute to social behaviours (Insel & Young, 2001).

ii. Neurobiological Causes:

Few neuroimaging studies of social anxiety disorder patients have been conducted to establish the neurobiological causes of this disorder. Of the few works done, attention have been focused on the role of the amygdala and its rich network of connections with other cortical and sub-cortical regions in the mediation of fear and anxiety (Davidson & Irwin 1999; Kalin, Shelton, Davidson & Kelley, 2001). Jaffe-Gill, Smith, Larson & Segal (2006) also reported that people who frequently experience social anxiety have an overactive amygdala and an underactive prefrontal cortex. The amygdala is also thought to play an important role in the neural circuitry of social intelligence. Humans with bilateral amygdala damage are unable to make accurate social judgments of others based on their facial appearance. Using the presentation of faces with emotional expressions as a probe of amygdala functioning in a range of anxiety Birbaumer, Grodd, Diedrich, Klose, Erb, Lotze, Schreider, Weiss & Flor (1998) found that patients with social phobia showed amygdala activation when presented with neutral faces, and that such patients also had increased activation in the amygdala when presented with neutral faces that have been previously paired with a noxious stimulus. These observations raised the possibility that anxious patients might have an altered threshold for amygdala response to affective stimuli.

iii. Social – Environmental Causes:

Some researchers assert that social anxiety disorder is a learned behaviour. In other words, an individual can develop this disorder from observing and interacting with others who experience similar anxiety. There may be an association between parents who are controlling and overprotective and the development of social anxiety. Parents may not be able to acknowledge

the disorder in their children because they experience the anxiety themselves and could transmit to them (their children) certain feelings and convictions that could make such children social phobics (Bander, Steinke, Allen & Mosher, 1975). Also observing or hearing about the socially negative experiences of others or verbal warnings of social problems and dangers may also lead to the development of social anxiety. An individual with longer-term effects of not fitting in, or who is being bullied, rejected or ignored may also develop social anxiety disorder.

iv. Psychological Causes:

There have been some focused studies on the relationship between early life psychological trauma and the development of social anxiety disorder. Studies have shown that the individuals' current social anxiety disorder may be a result of unresolved experience of earlier life trauma, regardless of whether they recall any traumatic circumstances, learned behaviour, poor social skills, negative evaluation, perceived dangers, inadequate attachment bond between parents or caregivers and child (Cuncic, 2011).

Learned behaviour: The cognitive-behavioural model explains social phobia by emphasizing the role of learning, or conditioning. This model argues that avoidance behaviour in social situations is learned from previous experiences in social settings. For example, if an individual has a negative experience in a social situation, such as giving an oral presentation, he or she learns that those kinds of situations should be avoided. Eventually, this type of avoidance may generalize to other situations so that the individual will begin to avoid any social situation in which embarrassment or humiliation may occur (Yahoo.Inc, 2011).

Deficits of social skills

Cognitive-behavioural model of social phobia considers inappropriate behaviour or lack of Social Skills as the cause of social anxiety. According to this view, the anxious individual repeatedly commits faux pas, is awkward and socially inept, has not learned how to behave so that he/she feels comfortable with others and /or is often criticized by social companions.

Negative Evaluation: Also, it has been found that individuals with social anxiety tend to show a sense of lack of control, biased expectations, and negative evaluations that could stem from early developmental experiences (Zuckerman ,1999). In his study, he had social phobia patients and control participants present a brief, impromptu speech. Ratings of performance by audience members showed no differences in actual performance between the control participants and social phobia patients. However, those with social phobia rated their overall performance as worse than did controls. These findings suggest that persons with social phobia may perceive their performance more negatively than others. Even when others perceive their performance as adequate, social phobic individuals might have negative evaluations of themselves.

Irrational Beliefs and Perceived Dangers: Individuals with social phobia typically hold more irrational, negative beliefs about themselves and others than those without phobias. For social phobia, these irrational beliefs are typically based upon needs for approval or acceptance. They may view themselves as unacceptable and inferior to other people. As cited in Turk, Heimberg, and Hope (2001), Stopa and Clark (1993) found that individuals with social phobia have mostly negative, self-derogatory automatic thoughts. Automatic thoughts are those that occur involuntarily and without effort. In this study, socially phobic individuals had negative, self-critical thoughts. These kinds of irrational beliefs about one's performance, abilities, or

inferiority drastically affect their perceptions about their performance in social situations. Self-defeating cognitions undoubtedly cause extreme anxiety in social situations, leading to heightened autonomic arousal and subsequent avoidance behaviours for similar situations. Another component of the cognitive model of social anxiety suggests that socially anxious people overpredict the fear that they will experience when in a social situation. This could explain the avoidance behaviour that individuals with social phobia experience. There could be an overestimation of the anxiety response causing individuals to completely avoid social situations, when in reality their experience would not be as catastrophic as expected.

Another psychological cause can be poor attachment with primary caretaker during stages of early-life development. Children who were unable to develop adequate bond with their primary caretaker may lack self-regulatory skills to calm, focus, and soothe themselves in situations they perceive as stressful. Adolescents who were rated as having an insecure attachment with their mother as infants were twice as likely to develop anxiety disorders including social anxiety by late adolescent (Warren, Huston, Egeland & Sroufe, 1997).

v. Cultural Influences

A society's attitude towards avoidance and shyness, impacting ability to form relationships or access employment or education are some cultural factors that have been related to social disorder. Some cultures do not allow children's participating in adult's conversation and social interaction. This therefore limits the children's exposure to social activities thereby making them novels. The effects of parenting are different depending on the culture. If parents for example emphasize the importance of other's opinion and use shame as a disciplinary strategy (as we find in Nigerian culture), children are more likely to develop social anxiety. Research reports that

more mothers' control and less fathers' acceptance are also associated with childhood anxiety which may extend to adolescence (Varela, Sanchez-Sosa, Biggs & Luis, 2009). In another study, Luis, Varela & Moore (2008) found that parenting practices reflecting over control and lack of warmth and acceptance are associated with childhood anxiety. Warren, Huston, Egeland & Sroufe (1997) reported that adolescents who were rated as having an insecure attachment with their mothers as infants were twice as likely to develop anxiety disorders by late adolescence including social anxiety. In some cultures, shy-inhibited children are more accepted than their peers and are more likely to be considered for leadership and considered competent in contrast to what is acceptable in western countries (Xinyin, Rubin & Boshu, 1995).

1.1.5. Social anxiety and Shyness

Although those who suffer from social anxiety disorder (SAD) are often perceived as shy, their condition is much more extreme than shyness. Unlike shyness, it is not simply a personality trait; it is a persistent fear that must have deeper roots than environmental causes. The relationship between social anxiety and shyness will be reported using some empirical studies.

In order to clarify the relationship between social phobia and shyness, Heiser, Turner, Beidel & Roberson-Nay (2009) examined the characteristics of highly shy persons without social phobia and non-shy persons. They found that: (1) social phobia group performed less effectively across tasks than those without social phobia; (2) they reported more symptomatology, more functional impairments and a lower quality of life than those without social phobia; (3) about one-third of the highly shy individual without social phobia reported no social fears, highlighting heterogeneity of the shy individual's; (4) social phobia group reported similar levels of anxiety

as the shy without social phobia during analogue conversations tasks but reported more anxiety during a speech task.

Heiser, Turner & Beidel (2003) in their study of relationship between shyness, social phobia and other psychiatric disorders reported that shy people have higher prevalence of social phobia (18%) compared with non-shy persons (3%). They however found that the majority of shy individuals (82%) were not socially phobic. In another study, Chavira, Stein & Malcane (2002) assessed the rates of social phobia in highly shy and normative samples using 2202 participants. They reported that approximately 49% of individuals in the highly shy group had a social phobia diagnosis compared to 18% in the normatively shy group. More generalized social phobia (36% versus 4%) diagnosis were present in the highly shy group compared to the normatively shy group while equal rates of non generalized social phobia (i.e 14% versus 14%) were present in the highly shy and the normatively shy comparison group. Their findings suggest that shyness and social phobia (especially the generalized type) are related constructs but not completely synonymous. In other words, an individual can be extremely shy and yet not have a social phobia diagnosis. In addition, shy people can be very uneasy around others, but they do not experience the extreme anxiety in anticipating a social situation and they do not necessarily avoid circumstances that make them feel self-conscious. On the other hand, most people experiencing social phobia will try to avoid situations that provoke dread or otherwise cause them much distress.

1.1.6. Assessment of Social Phobia

Information about the symptoms of social anxiety which can manifests in varying forms ranging from behavioural, cognitive, affective to physiological subscales could be gathered through the

use of psychological assessment tools. It is generally described as the process of gathering information about a client which is used in decision making with respect to the client's health-related psychological functioning. According to Gronowski & Gronowski (2006), psychological assessment is a process for identifying and evaluating the psychological strengths and difficulties of an individual. It involves the gathering of information about an individual's characteristics and their possible causes. A comprehensive assessment for social phobia could be done through several psychological assessment techniques. They include:

1. **Psychological Test:**

According to Ananstasi & Urbina (2005), psychological tests are objective and standardized measures of a sample of behaviour. They are tools or instruments designed to evaluate human behaviour, cognitive abilities, personality traits and other individual characteristics in order to assist in making prediction, judgements and decision. They measure differences between individuals or between the reactions of an individual under different conditions. They are used in a wide range of settings such as: academic, counselling, industrial, criminal justice, hospitals, research institute, government etc for different purposes.

They are used to assess a variety of mental abilities and attributes, including achievement and ability, personality, neurological functioning etc. Thus, psychological tests are designed for different purposes and vary in the aspect of behaviour they measure, the way they are administered, scored and interpreted. The main criteria for calling a scale psychological test are standardization and objectivity.

Standardization implies uniformity of procedure in administering and scoring a test. It is a major step in designing, and evaluating psychological tests. If the scores obtained by different

individuals are to be comparable, testing conditions must be the same for all. In order to secure uniformity of testing conditions and objective, information concerning the norms, reliability and validity of the test for its specific purposes must be obtained (Anastasi & Urbina, 2005),

a. Norms: Psychological tests have no predetermined standard of passing or failing. Performance on each test is evaluated on the basis of empirical data. Mainly, an individual score is interpreted by comparing it with the scores obtained by others on the same test. Thus, norms are standards created by the scores of a large group of individuals used as the basis of comparison for scores on a test.

b. Reliability: This involves the measure of how stable, dependable, trustworthy, and consistent a test is in measuring the same thing each time (Worthen, Borg, & White, 1993). According to Richmond (2006), it is the ability of a test to give a consistent result. Lahey (2001) on the other hand, conceived it as the ability of a test to produce similar scores if administered on different occasions. Therefore, reliability is the consistency of scores obtained by an individual when re-tested with the identical test or with an equivalent form of the test on varying occasions. Thus, for a newly constructed test to be reliable, it must measure what it is designed to measure. Some of the varying methods of achieving this include:

i) Split half method. This involves splitting a test into two and having the same participant doing both halves of the test. If the two halves of the test provide similar results this would suggest that the test has internal reliability.

ii) Test-retest: This involves administration of same form of a test on two or more separate occasions to the same group of examinees. On many occasions this approach is not practical

because repeated measurements are likely to change the examinees. Careful implementation of the test-retest approach is strongly recommended, (Yu, 2005).

iii) Alternate-Forms Reliability: This is an index of reliability coefficient of equivalence determined by correlating the scores of an individual on one form of test with their scores on another form on two different occasions. The correlation between the scores obtained on the two forms represents the reliability of the test. The disadvantage of this type of reliability is that if behaviour functions under consideration are subject to a large practice effect, the use of alternate forms might reduce such effect.

c. Validity: This according to Worthen, Borg, & White (1993) refers to the degree to which a test accomplishes the purpose for which it is being used. It is the extent to which certain inferences can be made from test scores or other measurement (Mehrens & Lehmann, 1987). It is the accuracy of a test. Some of the different types of validity are:

i) Content Validity – This refers to the extent to which the content of a test's items represents the entire body of content to be measured. The basic issue in content validation is representativeness. That is, how adequately does the content of the test represent the entire body of content to which the test user intends to generalize? Since the responses to a test are only a sample of an individual's behaviour, the validity of any inferences about that individual depends upon the representativeness of that sample.

ii) Criterion-Related Validity: This refers to the ability of a test to predict someone's performance on something. It is an extent to which one can infer from an individual's score on a test how well she will perform some other external task or activity that is supposedly measured by the test in question. That is, the test score should be useful in predicting some future

performance (predictive validity) or could be substituted for some less efficient way of gathering data (concurrent validity)? Examples of criteria are success in school, success in class, or success on-the-job as an employee.

iii) Construct Validity: This refers to the extent to which a test measure the psychological construct that is designed to measure. Since constructs do not exist outside the human mind, they are not directly measurable. In other words, the degree to which one can infer certain constructs in a psychological theory from the test scores.

iv) Face Validity: refers to whether the test looks valid "on the face of it." It is a desirable feature of a test in the sense that it is useful from a public acceptance stand point. If a test appears irrelevant, examinees may not take the test seriously, or potential users may not consider the results useful.

2. **Clinical Interview**

This involves a face to face verbal interaction between a therapist and client in order to gather detailed information that will help in determining the etiology, development, symptoms manifestation and course of the client's presenting problem. It helps in establishing a differential diagnosis, learning about the patient's family history, and deciding upon a treatment plan that is likely to be effective. Clinical interview can either be structured, unstructured or semi-structured.

a) Structured interview: In structured interview, the interaction between the therapist and the client follows a systematic format in which the therapist asks a set of standardized questions in the form of questionnaire to which the client responded one after the other. In addition, there is a definite order of asking the questions. The most popular structured interview for diagnosing social phobia are the Anxiety Disorders Interview Schedule for

DSM-IV (DiNardo, Brown & Barlow, 1994) and the Structured Clinical Interview for DSM-IV (First, Spitzer, Gibbon & Williams 1994). The disadvantage with this interview technique is that therapists or interviewer in some cases may likely ask some questions that may not be directly relevant to the client's presenting problem.

- b) Unstructured interview:** This is a process of asking a client open ended questions. It allows the therapist to determine the questions and topics covered during interview. The order of asking questions varies from one client to another as the therapist asks questions which are based on the client responses but all resulting in equivalent amount of information gathered. There is no systematic format in the interaction between the therapist and client.

One of the major shortcomings of these interview methods is in its reliability and validity as the interviewers vary in their approach and style as well as the impression that they make on clients. The reliability of an interview is determined by comparing the ratings given to client responses by two or more judges. According to Borman, Hanson & Hedge (1997), the magnitude of an interater reliability coefficient computed from these ratings varies with respect to the questions asked and the rater behaviour; it is often higher for structured and semi-structured interview than for unstructured. Validity is the extent to which an assessment measures what it purports to measure. Reilly & Chao (1982), found that the validity of the interview in clinical diagnosis is over rated while, on the other hand, Maurer & Fay (1988) are of the opinion that interviews can be made valid by carefully planning and structuring them as well as in training interviewers. The interviewers are to focus on specific clinical information responses and evaluate question by

question rather than as a whole. Also, the therapist's perceptions of the client can be distorted by his/her experiences and personality.

c. Semi-structured interview:

A semi-structured interview combines the formats of structured and unstructured interview. Specific questions are always asked, but these are coupled with opportunities to explore unique client circumstances.

3. Observational Techniques

This is the most widely used and probably the most acceptable and generally understood techniques of psychological assessment. It is defined as the process of systematically looking at and taking records of a client's overt behaviour for the purpose of making decision about his/her psychological functioning. This technique focused on the here and now thereby directing researcher's attentions on the immediate behaviour, its antecedents and consequences (Baer, Wolf & Risley, 1968). Observation can either be formal which involved systematic recording of behaviours that are measurable or informal in which case behaviour are not defined or recorded systematically. Observation can be carried out in various ways, some of which includes:

- a. Direct Observation: In this type of observational methods, the client is observed in real life situations while engaging in normal day-to-day activities, or in a contrived setting. In most cases, the client may be aware or not aware of being observed. If the person is observed obtrusively or unobtrusively while engaging in his/her daily activities it is called naturalistic

observation. If the observer is engaged in the same activity with the person being observed, it is called participants observation.

- b. Video Recording or Taping: This is an observation that is carried out by video taping a client while he or she is functioning in a given setting. The target behaviours are identified and quantified the analyses of the video tapes.

Observational methods are characterized with the problem of observer bias, low inter-rater reliability and problem of reliability and validity. In order to ensure the reliability and validity of data collected via this technique, some essential steps such as identification and specification of relevant behaviour to be observe, choice of the units of analysis in terms of length of time, scoring and contextual unit, intensity,etc are to be put in place.

Other methods that could be used in assessing social anxiety include psycho-physiological, projective, neuropsychological techniques etc. Some of the social anxiety scales in used include: 10 items Social Anxiety Scale for Adolescents (SASC) developed by La Greca, Dandes, Wick, Shaw & Stone (1988); the 28-items Fear of Negative Evaluation Scale (FNE) developed by Watson & Friend (1969); the 11items Brief Social Phobia Scale developed by Davidson, Potts, Richichi, Krishnan, Ford & Smith (1991); the 20 items Social Interaction Anxiety Scale (SIAS) developed by Brown, Turovsky, Heimberg, Juster, Brown & Barlow (1989). In Nigeria, no social anxiety scale has been developed to the best knowledge of this researcher.

1.2. Statement of Problem.

Social anxiety is characterized by intense fears and behavioural inhibition in social situations which could cause considerable distress, impaired ability to function in at least some aspects of daily life and have effects on a person's general well being. These fears can be triggered by perceived or actual scrutiny from others. While the fear of social interaction may be recognized

by the person as excessive or unreasonable, overcoming it can be quite difficult. This could have devastating effects on the occupational, academic, social and marital functioning of the individual. Individuals with high level of social anxiety have been found to have problem forming and maintaining relationships, access employment, and have a feeling of shame (Okano, 1994). Walters & Hope (1998) also found that persons with social anxiety disorder engage in fewer dominance behaviours. Furthermore, social and environmental demands such as (1) making heterosexual relationship---dating; (2) challenges of adapting/adjusting to new school environments and teachers, forming new relationships, making new friends, coping with academics (Buss, 1986); and (3) crisis of becoming independent, ego identity formation, identity confusion (Erickson, 1968) have been found to make adolescents vulnerable and susceptible to social anxiety. Also, the world is becoming highly competitive in all areas of human endeavour resulting in people having to demonstrate their potential and ability before they are recognized. This therefore implies that talented socially anxious individual may never be reckoned with because of their inability to demonstrate their potentials and ability.

Despite the myriads of problems associated with social anxiety and its pervasiveness, there appears to be little or no interest in assessing and managing this phenomenon in Nigeria. In addition, there is a dearth of standardized social anxiety assessment instruments as well as little or no documented intervention procedures for these disorders in Nigeria. This study intends to fill some of these gaps in knowledge by developing and standardizing a social anxiety assessment instrument. The instrument would be used to assess the prevalence and type of social anxiety disorders in adolescents in two local government areas in Lagos metropolis. In addition, intervention procedures for managing social anxiety would be established and used to manage adolescents identified with social anxiety disorder.

1.3. Objectives of the Study

The main aim of this study was to assess social anxiety among some adolescents in Lagos and to determine the efficacy of Cognitive Behavioural Therapy (CBT) specifically Social Skills Training (SST) technique in its treatment. The specific objectives of the study are:

1. To develop, standardize and validate the Social Anxiety Scale that will measure the different subtypes of social anxiety among adolescents.
2. To investigate the prevalence of social anxiety among the adolescents using participants from two Local Government Areas (Yaba and Somolu) of Lagos State
3. To determine whether there is gender differences in the manifestation of social anxiety among the participants.
4. To examine the influence of age on social anxiety.
5. To identify educational level differences in the exhibition of social anxiety different.
6. To establish the effectiveness of Cognitive Behaviour Therapy (Social Skills Training techniques) in the treatment of social anxiety.

1.4. Research Questions.

This study intends to provide answers to the following questions:

1. What is the prevalence of social anxiety among the adolescents studied?
2. What is the influence of gender in the manifestation of social anxiety?
- 4 What is the influence of age in the manifestations of social anxiety?
- 5 What influence will the educational level have on the manifestation of social anxiety?

6 How efficacious is Cognitive Behavioural Treatment in the management of social anxiety?

2.2. Research Hypotheses

In order to answer the research questions, four hypotheses were formulated and tested. They are:

- 1 Female participants will have significantly higher scores in measures of SAS than male participants.
- 2 There will be significant trend in the progression of social anxiety from the younger adolescents to the older ones.
- 3 Participants with low educational attainment will report significantly higher levels of social anxiety than those with high educational attainment.
- 4 Participants who are managed with Social Skills Training will manifest less social anxiety than those who are not managed (the control group).

1.5. Significance of Study.

The study will contribute to filling the gap in knowledge concerning the nature, assessment and treatment of social anxiety which has been long neglected in Nigeria. The study specifically will produce an instrument for assessing social anxiety disorder that researchers and professionals could use in screening people that suffer from this psychological problem. This instrument measures seven types of social anxiety thereby making it a relatively comprehensive scale for assessing social anxiety disorders unlike Fear of Negative Evaluation (FNE) which measures inadequate social interaction, shyness and performance anxiety.

The effectiveness and successful management of social anxiety with Cognitive Behavioural Therapy using Social Skills Training techniques provided a treatment modality for social anxiety sufferers in Nigeria. This provision would encourage many socially anxious people to come out of their silent prison of social anxiety. In addition, the successful management of social anxiety in this study provided a platform for empowering socially anxious adolescents with assertiveness skills and competence in present day highly competitive labour market. Finally, the findings of this study would assist the work of school counsellors, leadership builder practitioners and other relationship practitioners in Nigeria. The assistance will include the followings: (i) sensitization of these professionals of the existence of social anxiety among the adolescents through the finding on the prevalence of social anxiety; (ii) the different subscales would enlighten them about the different areas where adolescents exhibit social anxiety.

1.6.Scope of Study.

This study covers a sample of Nigerian adolescents and youth whose age ranged between 12 years to 22 years, who are residing and schooling in some areas in Lagos metropolis. The participants were drawn from Junior Secondary School, Senior Secondary School from two local government areas in Lagos State and first year students in one University. This sample, apart from being adolescents, has both ethnic and religious diversity within Lagos metropolis making them an adequate representative of Nigerian adolescents.

1.7. Operational Definition of Terms

The important terminologies that were used in this study are as in the context described as follows:

1. **Anxiety:** is operationalized as a state of discomfort, in which apprehension predominates, given a threat which is seen with the 'eye of one's imagination, a vague risk, with or without physical lesion.
2. **Social anxiety** (social fear): for this study, was defined as a persistent irrational fear generally linked to the presence of other people or objects. It is the sum of individual scores in the measure of Social Anxiety Scale and its Subscales.
3. **Adolescent:** For this study, is an individual within the age range of 12 to 22.
4. **Social Anxiety Disorder** (social anxiety, social phobia, and social phobia disorder): was measured in this study with the score of an individual that is one standard deviation higher than the norm in the measure of Social Anxiety Scale and its subscales
5. **Assessment:** In this study, involved the use of specific scales (questionnaires) that are designed to measure the types and levels of social anxiety in the participants.
6. **Treatment/Management:** was the Cognitive Behaviour Therapy administered to some of the participants with high level of social anxiety to help them overcome the problem or be able to cope more favorably in social situations that have elicited intense fear.
7. **Cognitive Behavioural Therapy:** was the 15 group sessions as outlined under the method's section.
9. **Group therapy:** In this study, it was the therapy administered to a group of participants with high scores in social anxiety.
10. **Social Skills Training.** This was the Cognitive Behaviour Therapy technique that was used for intervention for the management group.

11. **Role playing:** This was an act that allowed clients to stimulate different social situations and create new friendships with other members of the group. It is one of the techniques that was used for managing participants.
12. **Psycho-education:** In this study, it was a behavioural technique that was used for providing information on the etiology, prognosis, diagnosis and treatment of social anxiety among the management group.

1.8. Conceptual Framework for the study.

Based on the varying perspectives on the nature, causes and effects of social anxiety, this study developed an hypothetical Model of the association among demographic variables, fear triggers, fear stimulus and treatment modality for Social Anxiety. This model formed the basis of conceptual framework for this study.

Conceptual Framework

Figure 1: Hypothetical Model of the association between antecedent factors, feared trigger, fear stimulus and treatment

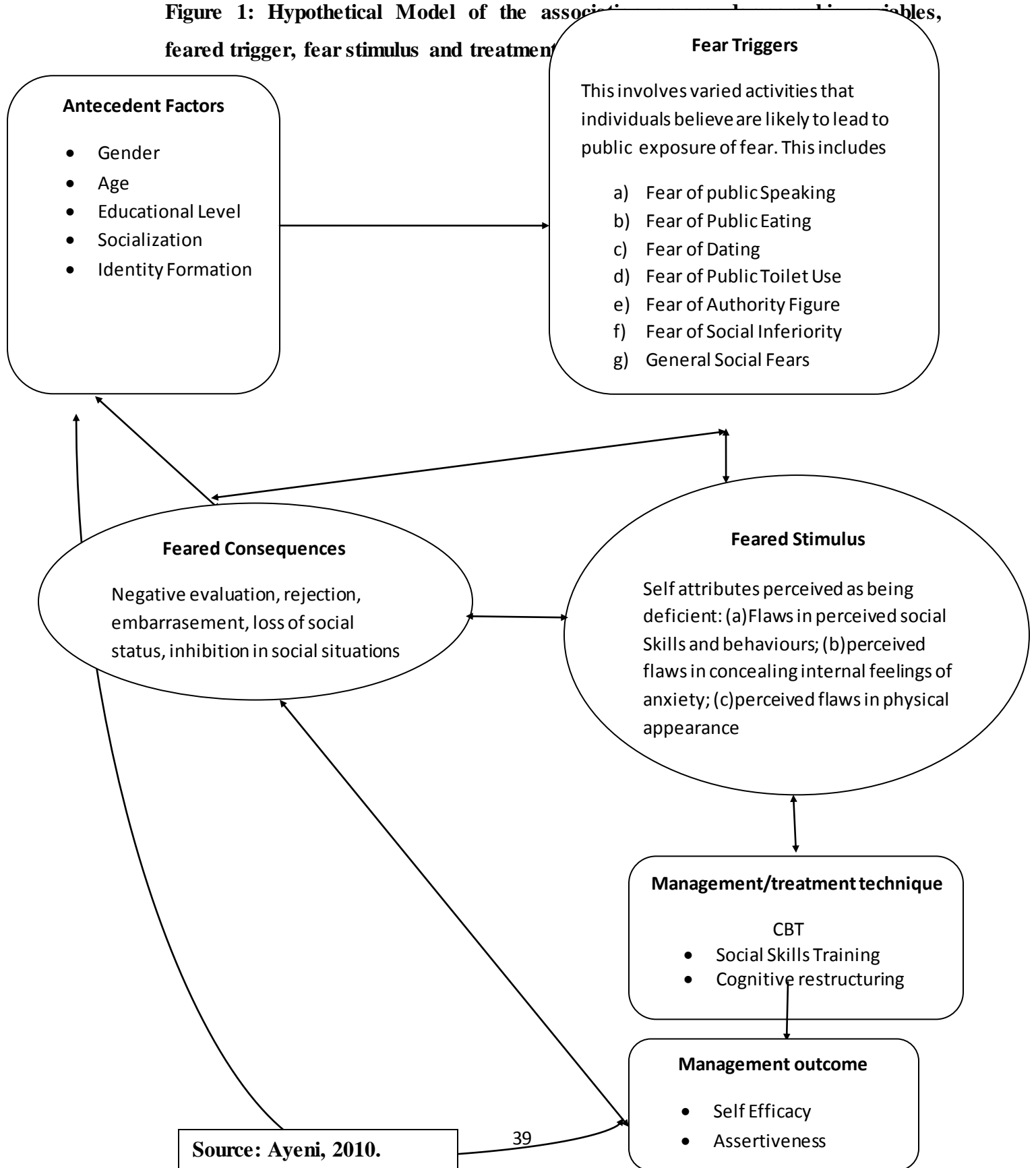


Figure 1 illustrates that both demographic and psychological variables may be responsible for the manifestation of social anxiety. The model is based on the following assumptions:

- ❖ That demographic variable such as gender, age, educational background, socialization and experience of the individual may individually or jointly influence his/ her reaction to social activities and performance.
- ❖ That several psychological processes like maladaptive cognitions regarding self- such as social incompetence; negative social evaluation, loss of social status, inability to convey a desired social impression and emotional experience of embarrassment characterize individual with social anxiety in varying social situations. These social situations includes: speaking in public, relating with authority figure, dating, using public toilet and so on.
- ❖ That individual with social anxiety focus their anxiety on perceived deficient attributes of self that may be exposed to public scrutiny and criticism as well as sense of incapability and unassertiveness. These feared self-relevant stimuli are characterized by:
 - perceived flaws in social skills and behaviours
 - perceived flaws in concealing potentially visible signs of anxiety and
 - perceived flaws in physical appearance

Perceived Flaws in Social Skills and Behaviours

This is a concern for lack of the skills required to perform socially or interact effectively with others in social settings. It is a feeling of unintentionally generating an embarrassing behavioural blunder during social interaction. A socially anxious individual whose anxiety is focused

primarily on perceived flaw in social skills and behaviour will offer responses such as “I will have nothing to say”, “I will do something stupid”, “I will not act appropriately” etc. This individual underestimated his/her performance.

Perceived Flaws in Controlling and Concealing Internal Feelings of anxiety

Socially anxious individual with this perceived flaws in controlling and concealing internal feelings of anxiety offer such responses as “My hands will shake”, “I will sweat” when asked to consider what he/she is afraid might happen in social situations that incur evaluation or judgement from others. Thus, this model believes that socially anxious individuals may be particularly concerned that they will show observable signs of internal feelings of anxiety such as sweating or shaking in social interaction.

Perceived Flaws in Physical Appearance

This focuses on aspects of own physical appearance by an individual with social anxiety. Individual with this flaw offers responses such as “I am ugly”, “my hair is rough” when asked to consider specifically what he/she is afraid might happen in social situations that would incur evaluation, criticism or judgement from others.

- ❖ That there is an association among these features and that an individual with social anxiety can and often do simultaneously experience concerns across the varying perceived flaws.

Undertaking intervention process using Cognitive Behavioural Therapy especially Social Skills Training technique and cognitive restructuring should however help the individual to acquire the skills that will help develop the confidence needed to interact effectively in social situations. Once the skills are learned and the confidence is acquired, social anxiety will either be reduced or eliminated. Also, the socially anxious individual becomes an assertive and self efficacious individual.

CHAPTER TWO

LITERATURE REVIEW

2.1. Theories of Social Anxiety.

There are varying perspectives regarding the nature and causes of social anxiety. Some of these perspectives include:

2.1.1. Psychoanalytical theories:

According to Freud (1926), phobia is a defence against the anxiety produced by repressed id impulses. This anxiety is displaced from the feared id impulse and transferred to an object or situation that has some symbolic connections to it. In social phobia, the social situations then become the phobic stimuli. By avoiding these situations, the person is able to avoid dealing with repressed conflicts. Arieti (1979) proposed that the repression is of a particular interpersonal problem of childhood rather than of an id impulse. He theorized that phobic children first lived through a period of innocence during which they trusted the people around them to protect them from danger. They however later found that those adults are not reliable. This mistrust or generalized fear of others was something they could not live with. In order to be able to trust people again, they unconsciously transform this fear of others into a fear of situations. When the individual undergoes some sort of stress in adolescence, the phobia surfaces.

2.1.2 Behavioural Theories:

The primary assumption of all behavioural accounts of phobia is that such reactions are learned. The learning mechanism and what is learned can be viewed at three theories: Avoidance conditioning, Modeling and Operant conditioning.

Avoidance conditioning: Phobias can be learned through two related sets of learning. The first is via (a) classical conditioning – a person can learn to fear a neutral stimulus or conditioning stimulus (the CS) if it is paired with an intrinsically painful or frightening event or unconditioning stimulus (the UCS). In case of social fear of public speaking for example, if the individual senses that people are gazing at him or her and whispering negative comments, he or she may develop fear of public speaking (Mitchell & Orr, 1974); (b) then the person can learn to reduce this conditioned fear by escaping from or avoiding the CS. This second kind of learning is assumed to be operant conditioning; the response is maintained by its reinforcing consequences. Though some clinical phobias fit the avoidance – conditioning model well, yet this theory does not provide a complete theory of phobias. A phobia of a specific situation has sometimes been reported to have developed after a particularly painful experience with that situation. However, some clinical reports suggest that phobias may develop without a prior frightening experience. An individual with fear of dating may have no particular unpleasant experience with this situation, if this is his/her first dating. The avoidance conditioning view of phobia might be more valid if it were modified to assume that certain neutral stimuli called prepared stimuli are more likely than others to become classically conditioned stimuli (Davison & Neale, 1998).

Modeling Theory: Anxiety responses may be learned through imitating the reactions of others. This is referred to as vicarious learning. Bandura & Rosenthal (1966) in their experiment arranged for participants to watch another person, a model (a confederate of theirs) in an aversive conditioning situation. The physiological responses of the participants witnessing this behaviour were recorded. After the participants had watched the model, “suffer” a number of times, they showed an increased frequency of emotional responses when the buzzer sounded. They began to react emotionally to a harmless stimulus event, though they had no direct contact with a noxious

event. Anxiety reactions can be learned through another's description of what might happen (verbal instruction) as well as observing another's fear.

Vicarious learning does not provide a complete model for all phobias. First, many people who have been exposed to bad experiences of others have not developed phobias and secondly, phobics who seek treatment do not report that they became frightened after witnessing someone's else's distress (Davison & Neale, 1998).

2.1.3. Cognitive Theories:

Cognitive views emphasize that anxiety is linked to being more likely to attend to negative stimuli and to believe that negative events are more likely to occur in the future (Mathew & MacLeod, 1994). Socially anxious people are more concerned about evaluation than non-anxious people are, and more aware of the image they present to others (Leary & Kowalski, 1998). Cognitive theories of the origins of phobias are also relevant to another feature of these disorders. These theories suggest that the fears actually seem irrational to the person experiencing them. This may be so because fear is elicited through early cognitive processes that are not available to conscious awareness. (Ohman & Soares, 1994).

The cognitive self-evaluation model states that social anxiety results not from an objective Skills deficit perse but from the individual's perception of personal inadequacies. More than non-anxious people, socially anxious people tend to underestimate their social skills, rate themselves more negatively, expect to perform more poorly socially and regard others' reaction to them as less positive even when they are not (Rapee & Heimberg ,1997; Glass, Merluzzi, Biever & Larsen, 1982).

Social Skills Deficits in Social Anxiety: Another model of social phobia considers inappropriate behaviour or lack of social skills as the cause of social anxiety. According to this view, the anxious individual repeatedly commits faux pas, is awkward and socially inept, has not learned how to behave so that he or she feels comfortable with others and/ or is often criticized by social companions. Findings support this view that socially anxious people are indeed rated as being low in social skills (Segrin, 1996) and that the timing and placement of their responses in a social interaction are impaired (Fischelti, Curran & Wessberg, 1977)

2.1.4. Erickson's Psychosocial Developmental Theory

Erikson believed that personality develops in a series of stages. His theory describes the impact of social experience across the whole lifespan. One of the main elements of Erikson's psychosocial stage theory is the development of **ego identity**. Ego identity is the conscious sense of self that we develop through social interaction. According to Erikson (1968), our ego identity is constantly changing due to new experiences and information we acquire in our daily interactions with others. In addition to ego identity, Erikson also believed that a sense of competence also motivates behaviours and actions. Each stage in Erikson's theory is concerned with becoming competent in an area of life. If the stage is handled well, the person will feel a sense of mastery, which he sometimes referred to as **ego strength** or **ego quality**. If the stage is managed poorly, the person will emerge with a sense of inadequacy. In each stage, Erikson believed people experience a conflict that serves as a turning point in development. In Erikson's view, these conflicts are centred on either developing a psychological quality or failing to develop that quality. During these times, the potential for personal growth is high, but so is the potential for failure. Erickson psychosocial Stage 5 describes the chief task of adolescent stage.

Psychosocial Stage 5 - Identity vs. Confusion: According to Erickson (1968), the task of adolescents is to resolve the conflict of identity versus identity confusion to become unique adults. During this stage, adolescents exploring their independence and develop a sense of self. Those who receive proper encouragement and reinforcement through personal exploration in social contexts will emerge from this stage with a strong sense of self and a feeling of independence and control. Those who remain unsure of their beliefs and desires will become insecure and confused about themselves and the future. It is out of this confusion that the individual can develop social anxiety. In other words, instead of identity formation, the individual will have identity confusion. The theory establishes the possible psychosocial developmental crisis in adolescence that can lead to adolescents' social anxiety.

2.1.5. Ethological /Psychobiological Theory.

This model was proposed by Trower & Gilbert (1989). According to the model, social anxiety results from mechanisms humans have evolved for dealing with conflict amongst themselves. Two distinct systems of social behaviour are proposed. The first and more primitive one is the "defense system". This is based primarily upon dominance or "power" hierarchies. Under this system, social interactions focus on the attention directed at dominant group members with subordinate members' anxiety toward the dominant preventing conflict. In the process, agonistic behaviour like aggression is inhibited by the subordinate's willingness to display submission and appeasement. Social anxiety therefore becomes a product of this defense system with socially anxious people preventing conflict by being submissive. They monitor their social behaviour and check the potential for injury and /or put down in social situations. The submissive gestures are

coping responses that inhibit aggression and allow subordinates to remain in the social group and in the proximity of the dominants.

The alternative social behavior to the dominance hierarchies of the defense system is the “safety system”. Under the safety system, conflict and aggression are inhibited by members displaying signals of reassurance instead of the subordinate displaying submission. The reassurance displays increase approach behaviours by other group members. When these safety signals operate, defensive arousal remains low in social interaction. Cooperation, social attention and appreciation replace competition, submission and dominance as the essential reinforcers of social behaviour. The model proposes that social anxiety is not a component but a product of the safety system.

Summary of Theoretical Review

The theories reviewed made their contributions to the etiological, maintenance, manifestation and management of social anxiety disorder. Psychoanalytic viewed the origin of social anxiety as a result of individual's transfer of fears of others into fears of situation. For Behavioural theory, environmental and social antecedents influence the manifestation of social anxiety. The theory posits that individual's perception of personal inadequacies may account for social anxiety. This was confirmed in this study by the high prevalence of social anxiety in fears of authority figure and social inferiority subscales of Social Anxiety Scale (SAS). The Sociometry theory explains that individuals monitor in an automatic and ongoing fashion the degree to which they are being accepted and valued versus their being rejected and devalued sociometer. They monitor the social environment for indications of immediate or potential relational devaluation. Individuals therefore feel socially anxious when the sociometer detects evidence of a potential problem in

their relational sphere. This may be highly related to some of the fears measured in the subscales of SAS, particularly fear of dating. Ethological Psychobiological model explains that social anxiety results from mechanisms humans have evolved for dealing with conflict amongst themselves either as dominants or subordinates. This dominant / subordinate model can be used to explain the motive behind fear of authority figure (one of the subscales of SAS). In conclusion, these theories explain the multidimensional cause of social anxiety which are highlighted in the seven subscales of Social Anxiety Scale (developed in Phase 1 of this study).

2.2. Theoretical Framework for the Study

Three theories are relevant in the formulation of a theoretical understanding of the nature of social anxiety. They are:

2.2.1. Integrated Cognitive-Behavioural Model

This model was developed by Rapee & Heimberg (1997) and further put in perspective by Turk, Lerner, Heimberg & Rapee (2001). It is a model that emphasizes the beliefs and information processing biases that are characteristic of individuals with social anxiety when they confront a feared social situation. It focuses primarily on the ways in which socially anxious individuals process information and interact with the world such that social anxiety is maintained. The model proposes that socially anxious individuals bring certain dysfunctional beliefs and information processing strategies into social situations. The ways in which socially anxious individuals think about themselves and other people and process social information set the stage for the series of reactions that happens when a social situation perceived as potentially harmful is confronted. To the socially anxious, what constitute a threatening situation varies from individual to individual. When confronted with such threatening situations, socially anxious individuals

construct a mental representation of how they are perceived by others and project the performance using input from standards expected by others.

2.2.2. The Self Presentation Theory

This theory was first proposed by Schlenker & Leary (1982). It refines the cognitive approaches that underlie social anxiety. Specifically, it involves how people are perceived and evaluated by others. It proposes that people experience social anxiety when they are motivated to make a desired impression on other people but doubt that they will successfully do so (Leary & Kowalski, 1995a, 1995b). The impressions that people make on others have important implications on how they are evaluated and treated in everyday life. People are therefore motivated to convey certain impressions of themselves and to avoid making certain other impressions (Leary 1995). The self-presentation theory has accounted for both the kinds of interpersonal situations that evoke anxiety and the individual differences in the tendency to feel socially anxious. This theory has received solid empirical support both from studies that have taken an explicitly self-presentational perspective as well as those emerging from other traditional theories (Leary & Kowalski, 1995a). The theory encompasses other approaches to social anxiety in linking social anxiety to people's self presentational concerns. Other researchers have demonstrated that social skills deficits of various kinds predispose people to be socially anxious and that Social Skills Training reduces social anxiety and shyness (Segrin, 1996; Patterson & Ricks, 1997). This study investigated adolescents' social activities that trigger social anxiety and also the effectiveness of Social Skills Training in reducing and or eliminating social anxiety.

2.2.3. Social Learning Theory.

This is a theory that had its root in the works of Ivan Pavlov, B.F. Skinner and John Watson and was pioneered by Albert Bandura. Albert Bandura's Social Learning Theory posits that people learn from one another, via observation, imitation, and modeling. The theory focuses on the learning that occurs within a **social context**. The theory has often been called a bridge between behaviourist and cognitive learning theories because it encompasses attention, memory, and motivation. The theory believes that social anxiety disorder originate from several environmental factors such as parental influence. Social Skills Training is deeply rooted in behaviourally oriented and learning oriented theories. Skinner's (1938) pioneering work on behavioural shaping indicated that behaviours could be learned and unlearned through positive or negative reinforcement. SST has its root in Wolpe's (1958) work on Psychotherapy by reciprocal inhibition. It emphasizes treatment by focusing on observable behaviour. Furthermore, he agreed that problems were best treated by teaching people to replace maladaptive behaviours with new more functional behaviours such as relaxation and assertion. His behavioural approach was further refined by Wolpe & Lazarus (1966) and formed one of the larger procedures in SST.

Social learning theory is based on the assumption that people could and would learn behaviour through observation and modeling. Observation and modeling formed one of the techniques used in SST (Bandura, 1977). The early phases of many SST include observing and modeling by the therapist or researcher, with encouragement for the client to imitate the performed behaviours.

The rationales for the selection of these three theories are:

- i. They explain the three subscales of social anxiety: behavioural, cognitive/perceptual and psychological subscales.

- ii. They explain the dysfunctional beliefs and information processing strategies that individuals with social anxiety bring into social situations.
- iii. The kinds of interpersonal situations that evoke anxiety and the individual differences in the tendency to feel socially anxious have been empirically verified.
- iv. Social skills training (the management techniques used for this study) is deeply rooted in behaviourally oriented and learning oriented theories which are represented by these theories.

2.3. Review of Empirical Studies

2.3.1. Etiology of Social Anxiety Disorders

The key etiological mechanisms of social phobia are largely unknown. Several risk factors have been proposed by researchers including biological, familial, and genetic, early temperament (such as behavioural inhibition), socialization patterns and psychological factors (ranging from behavioural conditioning to cognitive variables). There is increasing evidence regarding the role of familial factors in the development of social phobia. Lieb, Wittchen, Hofler, Fuetsch, Stein & Merikangas (2000) conducted a study linking development of *DSM-IV* social phobia to parental psychopathology (maternal), parenting style, and characteristics of family functioning. The study was a representative community sample of adolescents from the 1994 government population registers of residents in metropolitan Munich, including the surrounding countries. Data were collected from 1047 adolescents aged 14 to 17 years at baseline response rate of 74.3%, and independent diagnostic interviews with one of their parents.

Diagnostic assessments of parents and adolescents were based on the *DSM-IV* algorithms of the Munich Composite International Diagnostic Interview, a modified version of the World Health

Organization (WHO) CIDI, version 1.0. Parenting style in terms of rejection, emotional warmth, and overprotection was assessed by the Questionnaire of Recalled Parental Rearing Behaviour, while family functioning (in term of problem solving, communication, roles, affective responsiveness, affective involvement, and behavioural control) was assessed by the McMaster Family Assessment Device. Of the respondents, 5.6% fulfilled criteria for *DSM-IV* social phobia; 4.4% met criteria for the nongeneralized subtype; and generalized social phobia was present in 1.1%. Statistical analysis of data using multinomial logistic regressions showed a strong association between parental social phobia and social phobia among offspring. Other forms of parental psychopathology (depression, alcohol use disorder & panic disorder) were also associated with social phobia in respondents. Parenting style, specifically parental overprotection and rejection was found to be associated with social phobia in respondents. Family functioning was not associated with respondents' social phobia.

The findings of this study indicate that not only parental social phobia, but also other parental psychopathology, particularly parental depression and parenting style (individually and in combination), may contribute to the development of social phobia. However, the study underestimates paternal psychopathology due to the lack of direct interviews with fathers regarding social phobia and depression.

In a related study, Knappe, Beesdo, Fehm, Lieb & Wittchen (2009), examined parental psychopathology and family environment in sub threshold and *DSM-IV* threshold conditions of social anxiety disorder (SAD) in a representative sample of 1,395 adolescents aged 14 to 17 years. Offspring and parental psychopathology was assessed using the DIAX/ M-CIDI; recalled parental rearing and family functioning via questionnaire. Diagnostic interviews with parents were supplemented by family history reports from offspring. Associations between parental

psychopathology, parental rearing behaviour, and family functioning with offspring SAD were assessed with odds ratios (ORs) from multinomial logistic regressions.

Result of this study shows a cumulative lifetime incidence of 23.07% for symptomatic Social Anxiety Disorder, and 18.38 and 7.41% for sub-threshold and threshold SAD, respectively. The specific parent to offspring association for SAD occurred for threshold Social Anxiety Disorder only. For sub-threshold and threshold SAD similar associations were found with other parental anxiety disorders, depression and substance use disorders. Also, Parental rearing behaviour, but not family functioning, was associated with offspring threshold SAD, and although less strong and less consistent, also with subthreshold SAD.

Results suggest a continued linkage between parental psychopathology, familial risk factors and development of social anxiety disorder in offspring.

Schwartz, Snidman & Kagan (1999) provides the first investigation of the outcomes in adolescents who had been inhibited (in terms of avoiding novelty) or uninhibited (approaching novelty) in the second year of life. Seventy-nine subjects, aged 13 years, who had been classified as inhibited or uninhibited in the second year were assessed with both standardized interview and direct observation. Result showed a significant association between earlier classifications of a child as inhibited and generalized social anxiety at adolescence, but no association with specific fears, separation anxiety, or performance anxiety. They found that adolescents who were classified as socially anxious made fewer spontaneous comments than those without social anxiety. No relationship was found between any other type of fear and the number of spontaneous comments. Also, Adolescent girls who had been inhibited as toddlers were found to be more likely impaired by generalized social anxiety than boys. Their findings

indicate that important aspects of an inhibited temperament are preserved from the second year of life to early adolescence, which predispose an adolescent to social anxiety.

Family and twin studies indicate a genetic predisposition for the development of social phobia. According to Millon, Blaney & Davis (1999), the estimated heritability for social phobia ranges from 12 to 60% depending on the particular study. The average heritability based on several different studies is 37%. Behaviourally inhibited infants are found to be upset easily by things that are unfamiliar and are likely to develop into fearful children who will in adolescent show an increased risk for this disorder (Schwartz, Snidman & Kagan, 1999).

Kendler, Czajkowski, Roysamb & Reichborn-Kjennerud (2011) explored the genetic and environmental factors underlying the co-occurrence of lifetime diagnoses of DSM-IV phobia. Female twins ($n=1430$) from the population-based Norwegian Institute of Public Health Twin Panel were assessed with personal interview for DSM-IV lifetime specific phobia, social phobia and agoraphobia. Comorbidity between the phobias was assessed by odds ratios (ORs) and polychoric correlations and multivariate twin models.

Significant polychoric correlations of lifetime phobia diagnoses ranged from 0.55 (agoraphobia and social phobia, OR = 10.95) to 0.06 (animal phobia and social phobia, OR = 1.21) were found. Also in the best fitting twin model, which did not include shared environmental factors, heritability estimates for the phobias ranged from 0.43 to 0.63. They also found that the Comorbidity between the phobias was accounted for by two common liability factors. The first loaded principally on animal phobia and did not influence the complex phobias (agoraphobia and social phobia). The second liability factor strongly influenced the complex phobias, but also loaded weakly to moderately on all the other phobias. Blood phobia was mainly influenced by a

specific genetic factor, which accounted for 51% of the total and 81% of the genetic variance. This study therefore suggests that phobias are highly co-morbid and heritable. And that the co-morbidity between phobias is best explained by two distinct liability factors rather than a single factor.

Kendler, Karkowski & Prescott (1999) conducted a twin study in which they examined the reliability and heritability of fears and phobias. They obtained, 8 years apart, two assessments of lifetime history of five unreasonable fears and phobias (agoraphobia, social, situational, animal and blood/injury phobia) with face-to-face and telephone interviews from 1708 individual female twins from a population-based registry in Virginia, USA. One month apart, test retest reliability on 192 twins was also obtained. Result shows that short-term reliability of the five phobias was modest (mean kappa = 0.46), but higher than long-term stability (mean kappa = 0.30). Unreliability occurred both for subject recall of unreasonable fears and for interviewer assessment of which fears constituted phobias. Examining fears and phobias together, in a multiple threshold model, results suggested that twin resemblance was due solely to genetic factors, with estimated total heritability's, corrected for unreliability if any were agoraphobia 67%, animal 47%, blood/injury 59%, situational 46% and social 51%. With the exception of animal phobia, similar results were obtained analysing phobias alone.

The result of this study indicates that lifetime histories of unreasonable fears and phobias assessed with personal interview have substantial unreliability. Also correcting for unreliability, the liability to fears and their associated phobias is moderately heritable. Individual-specific environmental experiences play an important role in the development of phobias, while familial-environmental factors appear to be of little aetiological significance.

Kendler, Neale, Kessler, Heath & Eaves (1992) conducted a twin study in which they examined the genetic epidemiology of phobias in women by looking at the interrelationship of agoraphobia, social phobia, situational phobia, and simple phobia. The participants consisted of 2,163 female twins from a population-based registry in Virginia USA who were personally interviewed by the researchers. Analysis of the data obtained shows that the pattern of age at onset and comorbidity of the simple phobias (animal and situational)--early onset and low rates of comorbidity--differed significantly from that of agoraphobia--later onset and high rates of comorbidity. Also, the pattern of age at onset and comorbidity of the simple phobias (animal and situational)--early onset and low rates of comorbidity was consistent with an inherited "phobia proneness" but not a "social learning" model of phobias. The familial aggregation of any phobia, agoraphobia, social phobia, and animal phobia appeared to result from genetic and not from familial-environmental factors, with estimates of heritability of liability ranging from 30% to 40%. The best-fitting multivariate genetic model indicated the existence of genetic and individual-specific environmental etiologic factors common to all four phobia subtypes and others specific for each of the individual subtypes. This best-fitting multivariate genetic model suggested that:

- (1) Environmental experiences that predisposed to all phobias were most important for agoraphobia and social phobia and relatively unimportant for the simple phobias,
- (2) environmental experiences that uniquely predisposed to only one phobia subtype had a major impact on simple phobias, had a modest impact on social phobia, and were unimportant for agoraphobia, and (3) genetic factors that predisposed to all phobias were most important for animal phobia and least important for agoraphobia. Simple phobias appear to arise from the joint effect of a modest genetic vulnerability and phobia-specific traumatic events in childhood, while

agoraphobia and, to a somewhat lesser extent, social phobia results from the combined effect of a slightly stronger genetic influence and nonspecific environmental experiences.

In addition, Kendler, Karkowski & Prescott, (1999); and Nelson, Grant, Bucholz, Glowinski, Madden, Reich & Heath, (2000) found a concordance rate of 24.4% for monozygotic (identical) twins and 15.3% for dizygotic (fraternal) twins. A concordance rate is the percentage of time that both twins have the disorder. These data show that there seems to be a genetic component involved in the acquisition of social phobia. These studies show that heritability plays a role in the development of social phobia. But there is uncertainty about what exactly is inherited that leads to the development of the disorder.

A few neuroimaging studies on social anxiety disorder patients have been conducted to establish the neurobiological causes of this disorder. Of these, attentions have been focused on the role of the amygdala and its rich network of connections with other cortical and sub-cortical regions in the mediation of fear and anxiety (Davidson & Irwin 1999; Kalin, Shelton, Davidson & Kelley, 2001). The amygdala is a structure in the limbic system that is implicated in the fear and startle response. Persons with social phobia might be more susceptible to fear evoking stimuli because of abnormalities in the amygdala.

Jaffe-Gill, Smith, Larson, & Segal (2006) also reported that people who frequently experience social anxiety have an overactive amygdala and an underactive prefrontal cortex. The amygdala is also thought to play an important role in the neural circuitry of social intelligence. Humans with bilateral amygdala damage are unable to make accurate social judgments of others based on their facial appearance. Using the presentation of faces with emotional expressions as a probe of amygdala functioning in a range of anxiety, Birbaumer, Grodd, Diedrich, et. al., (1998) found

that patients with social phobia showed amygdala activation when presented with neutral faces, and that such patients also had increased activation in the amygdala when presented with neutral faces that have been previously paired with a noxious stimulus. These observations raised the possibility that anxious patients might have an altered threshold for amygdala response to affective stimuli.

Straubea, Mentzelb, Wolfgang & Miltnera (2006) examined brain activation during direct and automatic processing of phobogenic stimuli in specific phobia. Responses to phobia-related and neutral pictures (spiders and mushrooms) were measured by means of event-related functional magnetic resonance imaging (fMRI) during two different tasks. In the identification task, subjects were asked to identify the object (spider or mushroom). In a demanding distraction task, subjects had to match geometric figures displayed in the foreground of the pictures. Result shows that Phobic participants have greater responses to spiders versus mushrooms in the left amygdala, left insula, left anterior cingulate gyrus and left dorsomedial prefrontal cortex during the identification task, and in the left and right amygdala during the distraction task. All of these activations were also significantly increased compared with control subjects who did not show stronger brain activation to spiders versus mushrooms under any task condition. The findings propose specific neural correlates of automatic versus direct evaluation of phobia-relevant threat. While the amygdala, especially the right amygdala, seems to be crucially involved in automatic stimuli processing, activation of areas such as the insula, anterior cingulate cortex and dorsomedial prefrontal cortex is rather associated with direct threat evaluation.

Schienze, Herman, Axel, Walter, Stark & Vaitl (2009) conducted a similar fMRI study to examine the neural correlates of (i) phobic emotional responses, (ii) automatic emotional dysregulation in response to phobic compared with non-phobic emotional stimuli, (iii) effortful

(phobic) emotion regulation and (iv) deficits in the effortful regulation of phobic compared with generally aversive emotional responses within spider phobic subjects. Ten phobics and 13 control subjects were scanned while viewing alternating blocks of phobia-relevant, generally fear-inducing, disgust-inducing and affectively neutral pictures. The age of the subjects ranged from 19 to 26 years with a mean of 22.1 years ($SD = 2.8$ years). The stimulus material consisted of 126 pictures that were taken from the International Affective Picture System and additional pictures were compiled by the authors. The spider category consisted of 54 pictures with different spiders in natural scenes or on several parts of human bodies. The aversive stimuli depicted aversive scenes (e.g. injuries, disgusting food), which are highly arousing were chosen. As neutral stimuli, scenes depicting objects or humans in different locations were also chosen. In every category half of the pictures showed humans whereas the others did not. The study was conducted in two days. On the first day, the diagnostic interview was carried out and participants also underwent an anatomical scan in order to get familiar with the MR scanner. The experiment was completed in a second session. Functional imaging data were acquired with a 1.5 T scanner with a standard head coil (Magnetom Symphony, Siemens, Erlangen, Germany). A total of 680 volumes was acquired during the experiment using a T2*-weighted gradient echo-planar imaging sequence with 30 slices covering the whole brain (slice thickness = 4 mm, 1 mm gap, descending, TE = 55 ms, TR = 2860 ms, flip angle = 90° , field of view = $192\text{ mm} \times 192\text{ mm}$, matrix size = 64×64). The orientation of the axial slices was parallel to the AC-PC line. The patient group rated the spider pictures as being more disgusting and fear-evoking than the control group. They also showed greater activation of the visual association cortex, the amygdala, the right dorsolateral prefrontal cortex and the right hippocampus. Specific phobia-related activation occurred in the supplementary motor area. Greater amygdala activation was shown by the

patients during the presentation of generally disgusting and fear-inducing pictures. This points to an elevated sensitivity to repulsive and threatening stimuli in spider phobics, and implicates the amygdala as a crucial neural substrate.

The main shortcoming of this study is that the results and conclusions are restricted to emotional processes within spider phobic individuals. Due to the experimental design, a meaningful investigation of non-phobic subjects is not possible. Thus, the above mentioned deficits characterize emotional processing in response to phobic *versus* non-phobic emotional stimuli in phobics rather than differences between phobic and non-phobic persons.

These findings indicate that individuals who have social phobia may have nervous systems that react more easily to anxiety producing or fearful stimuli. Persons with social phobia might be more susceptible to fear evoking stimuli because of abnormalities in the amygdala. Zuckerman (1999) describes a study conducted by Liebowitz, Gorman, Fyer, & Klein, (1985) in which carbon dioxide inhalation was used to provoke a panic response in individuals with panic disorder, individuals with social phobia, and control subjects. Liebowitz et al (1985) found that social phobia patients were more prone to panic than control participants but not as prone to panic responses as panic disorder patients. Based on the results of this study, social phobic individuals seem to have more hypersensitive, or reactive, nervous systems leading to more exaggerated reactions to anxiety provoking stimuli.

2.3.2a. Social Anxiety Subtypes and Symptomology

One of the major tenets in the DSM – III diagnostic criteria for social phobia is that “generally, individuals have only one social phobia” (American Psychiatric Association, 1980). However, different studies have shown that there exist two subtypes – the generalized and non generalized

subtypes. Any patient showing marked impairment in most performance and social settings are labeled “generalized”, whereas the “discrete” (“non generalized”, “circumscribed” “limited” or “performance” (Velting & Albano, 2001) patients usually have difficulty principally in performance situations like public speaking or music performance rather than social situations. It should be noted that this sub typing was accomplished by a consensus reached in weekly group discussions by all practicing psychiatrists and senior investigator. Levin, Soaud, Strauman, Gorman, Fyer, Crawford & Liebowitz, (1993) in their study using 36 patients who meet DSM-III-R social phobia criteria and 14 controls found during a ten-minute speech delivered in a video studio, generalized and discrete social phobic patients demonstrated distinctive patterns of subjective and physiologic response, supporting the validity of the diagnostic groupings. Generalized social phobic patients experienced significant increases in subjective anxiety while speaking compared with the discrete groups and controls. In contrast, discrete social phobics showed greater anticipatory anxiety than controls but had no increase in subjective during the speech. All discrete patients (8 of them) ranked public speaking as their principal fear with one patient also being phobic of musical performance in public (a requirement for her vocation).

An earlier research by Heimberg, Hope, Doge & Becker (1990), compared subjective responses across subtypes with public speaking phobics and found a similar pattern. Public speaking phobics reported greater anticipatory anxiety than the generalized patients. The generalized patients reported more fear than the discrete group on the Personal Report of Confidence as a speaker in a self – report that was used prior to the speech.

When physiologically monitored, the discrete patients had faster heart rates throughout compared to controls or generalized patients. (Levin, Saoud et al, 1993). This is also consistent with Heimberg et al’s (1990) finding that public speaking phobics in their sample showed greater

heart rate increases at the start of speaking and persisted with higher heart rate throughout, compared with generalized patients tested during social interaction. From these two studies, (Levin et al, 1993 and Heimberg et al, 1990), it can be concluded that discrete social phobics demonstrate greater autonomic arousal and anticipatory anxiety, but little subjective response during speaking compared with generalized social phobics.

Behavioural findings on these subtypes are either inconclusive or inconsistent. Levin et. al (1993) found that only generalized patients differed from controls and that discrete and generalized patient's generally demonstrate similar behavioural manifestation of anxiety. Their finding is, however, at some variance with Heimberg et al (1990). They found that generalized group gives poorer performances than the discrete group. The difference might have resulted from the types of challenge given to the samples.

Liebowitz (1999) in his review on update and diagnosis and treatment of social anxiety, suggested that social anxiety disorder is best conceptualized as having two distinct subtypes, generalized and non-generalized. He remarked that the two subtypes appear to differ in terms of symptoms, course of illness, morbidity, comorbidity, treatment response and pathophysiology. Generalized social anxiety is more disabling, and patient with this condition are anxious in most social situations. Patients with generalized social anxiety have increased social and occupational impairment and tend to have a higher incidence of co-morbid depression and alcohol abuse. The non-generalized subtype is predominantly associated with performance anxiety (e.g. public Speaking).

Wittchen, Stein & Kessler (1999) provides evidence supportive of the subtype distinction on social phobia in their study using a community sample of 3021 individuals aged 14 – 24 years. Their definition of generalized social phobia required the individual to report fearing three or more specific social situations. They found that generalized social phobics had more impairment in terms of their work, school and household management, higher comorbid disorders (e.g. eating disorders, major depression, nicotine dependence, other anxiety disorders and dysthymia), with comorbidity. Wittchen et al. also found that generalized social phobics were more likely than non-generalized social phobics to have histories of high behavioural inhibition, long-lasting separation from either parent during childhood or early adolescence, and a parental history of psychopathology.

Mannuzza, Schneier, Chapman et. al. (1995) in their investigation of the reliability and validity of DSM – III-R “generalized” social phobia and nongeneralized social phobia found results consistent with above findings. They compared and classified 129 patients attending an anxiety clinic as having DSM –III-R social phobic that is generalized (fears of most social situations) or nongeneralized (less than most) based on independent narrative review. They found that patients with generalized social phobia were more often single, had earlier onsets of social phobia, had more interactional fears and had higher rates of atypical depression and alcoholism.

Hofmann, Gerlach, Wender & Roth (1997) identified generalized and non-generalized subtypes on the basis of subjective fear ratings of specific social situations through the assignment given to their subjects. Participants were asked to rate their fear on a scale from 0 (not at all) to 10 (very much) on six social situations. These situations are; having a first date, using the telephone,

being introduced, meeting people in authority, being teased and being under observation by others. Phobics and controls were assigned a generalized subtype diagnosis if they rated a minimum of four social situations as at least moderately fear-provoking. This cut-off criterion for the subtype of social fear was similar to that of Turner, Beidel & Townsley (1992), Hofman, Newman, Ehlers & Roth (1995), and Hofmann & Roth (1996).

2.3.2b. Social Anxiety Subtypes and Physiological Reaction

Examining the role of physiological reactivity in social anxiety, Beidel, Turner & Dancu (1985) assessed 52 socially anxious and non-anxious individuals for indicators of physiological arousal, type of cognitions and behavioural indicators of skill and anxiety within the context of some interpersonal tasks. They reported that physiological reactivity occurred in most social situations in the socially anxious and to some extent in the non-socially anxious. Socially anxious participants also have an increased number of negative cognitions and fewer positive cognitions. In behavioural dimension, the socially anxious group was less skillful. Lastly, the socially anxious rated themselves as more anxious during the interactions than the non-socially anxious group despite similar increases in physiological arousal during the speech and the lack of reactivity in either group during the same sex interaction. This higher rating by the socially anxious group may be an indication of heightened sensitivity to physiological arousal.

Quite a number of studies have also explored the area of symptomology of social anxiety. Hofmann et. al. (1997) in their study on speech distances and gaze behaviour during public speaking in subtypes of social phobia found that social phobics had a greater $ah - ratio$, showed longer pauses, paused more frequently, and spent more time pausing than controls. Generalized phobics reported the highest subjective anxiety during a public speaking task – more than the non-generalized phobics (who also reported more subjective anxiety than the controls) consistent

with Lewin, McNeil & Lipson's, (1996) finding, generalized phobics spent more time pausing than the other three groups (non generalized phobics and controls) more than 25% of the time, a total of more than 30 seconds of silence during a 2 – minute speech. Hofmann et. al.'s (1997) finding however contradicts Stopa & Clark's (1993) assumption that social phobics avoid silent pauses in their speech. Their finding suggested that gaze behaviour is not a valid indicator of anxiety in a public speaking situation. This is inconsistent with findings from other studies (Eve & Marks, 1991; Wiens, Harper & Matarozzo, (1980). The discrepancy could have been as a result of the audience and instruments used by these different researchers. The inter-observer reliability was high in Hofmann et. al. (1997) and Eve & Mark's (1991) studies, but no data on the reliability of the method of Eves & Marks have been published. Eve & Mark's (1991) participants spoke before 20 people – perhaps to many that eye contact would be difficult to ascertain. Unlike Hofmann et. al.'s subjects, Eves & Marks' subjects were allowed to use notes while delivering the speech. This may have provided a convenient excuse for anxious speakers not to look at the audience. Their findings have provided more understanding to the symptoms experienced by public speaking phobics.

Some researchers have studied the psycho-physiological reactions of public speaking phobics and found contrary results. For example, socially anxious individuals have been found to differ little if at all in physiological responding from non-socially anxious ones during stressful tasks (Edelmann & Baker, (2002); Grossman, Wilhelm, Kawachi & Sparrow, (2001). On the contrary, Davidson (1998) asserts that individual differences in emotional reactivity could be characterized by the time course of affective responses rather than by response magnitude alone. Consistent with this explanation, Beidel, Turner, & Dancu (1985) using 52 socially anxious and non anxious

participants found increasing group differences between High Trait Socially Anxious (HTSA) and Low Trait Socially Anxious (LTSA) in systolic blood pressure across three different tasks (same – sex interaction, opposite – sex interaction, impromptu speech).

The above studies have their limitations. They include the assessment of a relatively small number of autonomic responses; inconsistent findings across different measures of autonomic responding and the use of different types of social stressors in repeated – task designs. However, it must be noted that they provide initial support for the notion that High Trait Socially Anxious individuals' autonomic responses differ from Low Temperamental Social Anxiety individual's responses principally in terms of their temporal characteristics rather than their magnitude in response to a single stressor.

To clear the contradictory findings as much as possible, Mauss, Wilhelm & Gross (2003) chose specific variables that will help in differentiating HTSA and LTSA individual's experience and autonomic responses before, during and after two highly stressful impromptu speeches. They selected participants with extreme scores on a measure of trait social anxiety; only female participants; screened individuals using a specific scale designed to measure anxiety concerning public speaking and measured a large number of physiological responses across different response systems to maximize the chances of detecting group differences in physiological responding. They found that HTSA participants reported greater anxiety during both speeches and recovery periods than did LTSA participants. However, there were no group differences in autonomic physiological reactivity, habituation to, or recovery from the speeches. The findings suggest that differences in physiological responses between low and high trait social anxiety

groups are either non-existent or very small. Mauss Wilhelm & Gross's (2003) finding is consistent with models of social anxiety that emphasize the role of cognitive processes such as attentional focus, dysfunctional appraisal of the self and social situations, and negative self-schemata in social anxiety (e.g. Clark & McManus, 2002). Edelmann & Baker (2002) found that the theories attributed group differences in self-reported physiological activation to misperception and over-reporting by HTSA rather than to actual group differences in physiological activation. Differences in cognitive processing have been found by other researchers. Malizia, Willson, Bell, Nutt & Grasby (2000) reported increased activation of dorsolateral prefrontal cortex area when social phobics thought about anxiety – provoking situations. Also, Davidson, Marshall, Tomarken & Henriques (2000) showed heightened activation in the prefrontal cortex associated with anticipating a speech in social phobics relative to control in their experimental study. Dating relationships, contrary to previous view as being trivial, transitory and lacking in importance has been found to have significant implication for adolescents' psychosocial functioning (Collins, 2003). Carver, Joyner & Udry (2003) in their report based on the National Longitudinal study for Adolescent Health reported that 25% of 12 – years' olds report having had a special romantic relationship and the percentage goes higher by age 16. Feiring (1996) revealed that 88% of the 15-years-olds interviewed reported having dated. Having a romantic relationship and the quality of the relationship have been linked with positive self-concept during adolescence (Connolly & Konarski, 1994).

2.3.2. Age of Onset

Social fear appears to be a common problem that emerges in preadolescence (Velting & Albano, 2001). A large-scale study of individuals presenting at an anxiety clinic found a mean age of onset of 15.7 years (Brown, Campbell, Lehman, Grisham & Mancill, 2001). Last, Perrin, Hersen & Kazdin (1992), using DSM-III-R criteria found that the average age of onset of social fear falls between 11.3 and 12.3 years. A later study by Mannuzza et. al. (1995), using 129 patients reported that patients with generalized social fear had significantly earlier onsets than did patients with non-generalized social fear (means 10.9 years versus 16.9 years) with half of generalized (n = 67) developing the full syndrome before age 10 years. Liebowitz, et al, (1985) in their review of social fear reported the onset of social fear to be between the ages of 15 and 20. This is later than the adolescent onset noted in DSM-III. Awaritefe (2007) in his study of clinical anxiety in Nigeria reported that the most vulnerable age group for anxiety was between 18 and 23 years.

It must be noted that these researchers used different populations— clinical and non-clinical. This could probably have accounted for the difference in age of onset of social phobia. However there is an agreement that it is an adolescent disorder – either preadolescent or adolescent. The present study will use non-clinical adolescent participants from the general population.

2.3.3. Gender Differences in Social Anxiety

It is of paramount importance to review for any sex differences in social anxiety. This is because of the important role played by the female gender in child bearing and environmental stability of the family. Bourdon, Boyd, Rae, Burns, Thompson & Locke (1988) examined gender differences among the three DSM-III phobic disorders –agoraphobia, social phobia and simple phobia in

specific phobic situations reporting fears at the phobic level, age of onset and other variables. They found that differences between men and women in reporting phobic level fears are apparently unremarkable once they admit to having a fear. and mean and median ages of onset showed no gender differences.

La Greca & Harrison (2005) reported a contrary finding. They examined multiple levels of adolescences' interpersonal functioning using an ethnically diverse sample of 421 public high school adolescents aged 14 to 19 years from middle class socioeconomic background. They reported among other things that girls were observed to report more social anxiety than boys.

In a related study, Garcia-Lopez, Ingels & Garcia-Fernandez (2008) studied gender and age differences among 2,543 Spanish- speaking adolescents (1,317 boys and 1,226 girls) from ten high schools (seven public and three private schools) in rural and urban areas in Spain. They found that girls exhibited significantly higher levels of social anxiety than boys. Using each factor of the Social Phobia subscale of the Social Phobia Adolescent Inventory (SPAI), gender differences were also revealed. They examined if boys and girls varied in the nature of the situations which they scored as anxiety provoking. Their finding revealed a significant difference between boys and girls. They however reported that boys and girls did not differ in frequency of escape symptom- behaviours that were rarely exhibited.

Gren-Landell (2010) studied social anxiety disorder in Swedish adolescents. Using both cross sectional and longitudinal designs to collect data, he examined the epidemiological variables of Social Anxiety Disorder (SAD) in 5,858 participants. He found among other things that (i) social anxiety was stable over adolescence.

Inderbitzen, Walters & Bukowski (1997) used equal gender distribution among the sociometric groups and found significant gender differences. Inderbitzen et al further reported that girls

scored higher than boys on the total Social Anxiety Scale-Adolescent (SAS-A), Fear of Negative Evaluation (FNE) and Social Anxiety Disorder (SAD-N) subscales. Girls reported higher social anxiety than boys. This is consistent with Adewuya, Ola & Adewuyi's (2007) findings. They used Nigerian secondary school adolescents in their 12-month prevalence study of DSM-IV specific anxiety disorders. Fehm, Pelissolo, Furmark & Wittchen, (2005) reported that epidemiological studies suggest that SAD is slightly more common in women than in men. This however contradicts Hofmann & Barlow's (2002) finding that gender differences in clinical samples are negligible and some evidence suggests that men are more likely to present themselves for treatment. La Greca & Lopez (1998) in their study of social anxiety among adolescents found linkages between social anxiety and girls close friendships. Girls with high levels of generalized social avoidance and distress reported having fewer best friends, and these friendships were perceived to be lower in intimacy, companionship, and emotional support whereas for boys, social anxiety was not typically related to friendship qualities. These results suggest that social anxiety may interfere substantially with girls close interpersonal relationships. In contrast, Kirmayer, (1991) reported gender differences that favor girls than boys. He found in clinical data in Japan that more male participants than female participants have the TKS condition (Kirmayer, 1991).

Investigating the frequency and co-morbidity of social phobia and social fears in adolescents, Essau, Conradt & Petermann (1999) reported that gender differences emerged for all kinds of concerns. When exposed to a social fear, significantly more girls than boys reported fear: of something embarrassing happening; of being judged as stupid/weak; of being judged as crazy; of getting a panic attack; felt confused; feeling ashamed of oneself; that one has to vomit; of not being able to have bladder control and of getting red.

More specific studies should be done in the area of gender differences so that those variables that contribute to girls having higher levels of social anxiety can be identified and treated. This is urgently needed so that this debilitating problem will not be passed to future generations either through heredity or environmental influences.

2.3.4. Age differences in social anxiety

Garcia-Lopez, Ingles and Garcia-Fernandez (2008) examined age differences in the exhibition of social anxiety. The participants consist of 2,543 Spanish-speaking adolescents recruited from public and private high schools in urban and rural area in Spain. Their age ranges from 12 to 17 years ($M = 13.9$, $SD = 1.4$). The participants were divided into three groups: 12-13 years; 14-15 years and 16-17 years. Significant differences were found, with the highest percentage of socially anxious adolescents in the early adolescence stage (age group 12-13) and decreasing frequency across age, consistent with the findings of Poulton, Trainor, Stanton, McGee, & Silva (1997).

In a related study, Gren-Ladell (2010), used both cross-sectional and longitudinal methods to investigate age differences among his study participants. 2,128 Swedish adolescent participants aged 12-14 and 17 years were used. He found higher level of social anxiety among older adolescents.

2.3.5. Prevalence of Social Anxiety.

Bella, & Omigbodun, (2008) studied the prevalence, correlates and co-morbidity of social phobia among undergraduates in a Nigerian university. Using a cross-sectional survey, they reported a lifetime and 12 month prevalence of 9.4% and 8.5% respectively among their participants.

Adewuya, Ola & Adewumi (2007) estimated the 12-month prevalence of DSM-IV specific anxiety disorders among Nigerian secondary school adolescents aged 13-18 years. Using a sample of 1,090, they reported that the 12-month prevalence for all anxiety disorders was 15.0% (female participants=19.6%, male participants= 11.4%) This result reveals a significant gender differences in the prevalence for anxiety disorders among their participants.

Gren-Landell , (2010) studied 2,128 Swedish participants to investigate prevalence of SAD in students aged 12-14 and 17 years using both cross-sectional and longitudinal designs. He reported a prevalence of 4.4% among 12-14 years and 10.6% among age 17 years. He concluded that self-reported SAD is common in Swedish adolescents and especially in girls and older adolescents.

Fehm, Pelissolo, Furmark, & Wittchen, (2005) reviewed critically epidemiological studies on the prevalence and/or incidence of social phobia in European Union (EU) using 21 community studies and 2 primary studies. They reported the followings: (i) when prevalence rates are differentiated from age group, they are generally found to decrease slightly across age groups; (ii) that the onset of social phobia after age 25 seems to be rare; (iii) that social phobia is generally regarded as a chronic condition with an epidemiological as well as in clinical studies of 10 or more years in duration; (iv) that gender differences revealing that women are more frequently affected than men.

2.3.6. Social Anxiety and Comorbidity

Contrary to DSM – III's view that social anxiety is circumscribed, many researchers have found that there is significant co-morbidity with other disorders. Social anxiety has an early onset and so precedes other comorbid conditions in more than 70% of patients (Schneier, Johnson,

Horning, Liebowitz & Weissman, 1992). Many researchers using different samples reported depression, alcoholism and substance abuse as frequent complications of social anxiety.

Fehn et. al., (2005) in their epidemiological studies in 21 communities and two care studies enumerated the followings comorbidity findings with social anxiety, (I) that comorbidity in social anxiety seems to be the rule rather than the exception. There is casual link between social anxiety and depression; (ii) only 12% of all cases with the diagnosis of social anxiety during 12 months were pure; all others had at least one other mental disorder; (iii) other anxiety disorders and substance abuse have consistently been found to be associated with social anxiety; (iv) social anxiety seems to precede, temporally, alcohol abuse or dependence and the relationship between social anxiety and alcoholism is particularly complex.

Kessler, Berglund, Demler, Jin, Koretz, Merikangas, Rush, Walters & Wang (2003) reported that when the lifetime prevalence of major depression is considered, depression is frequently comorbid with anxiety disorders. Lochner, Mogotsi, du Toit, Kaminer, Niehaus, & Stein, (2003) and Matza, Revicki, Davidson & Sterwart, (2003) found that social anxiety is also frequently comorbid with major depression, atypical depression, substance abuse and Schizophrenia. Liebowitz (1999) reported that the common comorbidities of social anxiety include agoraphobia, simple phobia, major depression, substance abuse disorders, and obsessive –compulsive disorder. In a survey of 123 patients with social anxiety disorder, the rates of comorbid simple phobia (63%), agoraphobia (47%), generalized anxiety disorder (20%), depression (14%), alcohol abuse (12%) and panic disorder (10%) were considered to be exceptionally high, and 10% of patients had attempted suicide.

Brown & Barlow (1992) found other anxiety and mood disorders are comorbidity with social anxiety disorder. Among a small sample of 17 German adolescents, the most common comorbid condition was somatoform disorder, followed by major depression, agoraphobia, and alcohol abuse. However, one large epidemiological sample of 2,242 high school students did not find higher rates of major depression among adolescents with social phobia (Hayward, Killen, Kraemer & Taylor, 1998). The difference here may be a result of the instruments used and the purpose of the research. In a Nigeria study conducted by Bella & Omigbodun, (2008) using university students, social anxiety was found to be significantly associated with lifetime and 12-month depression, psychological distress and perceived poor overall health.

2.3.7. Development of Social Anxiety

Developmental psychopathology constitutes a valuable framework for understanding the development, persistence and amelioration of Social Anxiety Disorder. The main tenets of this theory are 1) the dynamic transaction of risk and protective factors, 2) the necessity to study both normal development and unsuccessful adaption in order to understand psychopathology, and finally 3) to consider the role of developmental phase in studies of psychopathology (Vasey & Dadds, 2001).

No factor is thus necessary or sufficient to explain the development of SAD. Instead a multifactorial approach with a reciprocal interaction between environmental and biological factors is emphasized (Ollendick & Hirshfeld-Becker, 2002; Rapee & Spence, 2004). Knowledge about the exact nature of factors and how they interact is still missing though it is proposed that multiple pathways exist (Albano & Hayward, 2004). A short review of some

factors that so far have got most empirical support are described below with the view that SAD develops through interaction between different factors.

- i) **Childhood Inhibited Temperament:** This has been found to be an influential factor in the development of adolescent social anxiety. Some researchers have explored the risk childhood behavioural inhibition to the unfamiliar can have in the development of social anxiety. Kagan & Reznick's (1986) work focused on physiological correlates of inhibition that imply genetic influence. They classified children aged 2½ to 4 years as socially inhibited and uninhibited based on the behavioural indexes of distress when exposed to strangers. Children of each type were exposed to a play-room situation in which an experimenter administered a cognitive task like repeating familiar words and then are asked to recall them. Prior to and during these tasks, measure of heart rate, pupillary dilation, and vocal pitch were collected. Inhibited children had higher and less variable heart rates, larger increase in pupillary dilation and higher and less variable tonal pitch (reflecting greater vocal cord tension) than did uninhibited children from baseline through completion of task. These physiological differences remained stable over a one to one and half year periods. The results for inhibited children suggested possible inheritance of a lower threshold for sympathetic arousal when exposed to unfamiliar stimuli, including novel social stimuli.

In another study Kagan, Reznick & Snidman (1988)) reported identifying a laboratory – based temperamental construct, behavioural inhibition to the unfamiliar (BI) that remains stable across

childhood. They said a child exhibits a B1 temperament when his/her responses to novel stimuli or events are consistently characterized by excessive sympathetic arousal and behavioural withdrawal. They found that behavioural inhibited children's responses are cessation of ongoing activity and vocalization, avoidance, retreat, isolation, extended latency to interact with new persons and clinging to caregiver. Later researchers propose that B1 has a genetic basis (Robinson, Kagan, Reznick & Corley, 1992), may be stable across time predicting behaviour 10 years later (Mick & Telch, 1998); particularly associated to social anxiety and avoidance (Biederman, Rosenbaum, Bolduc-Murphy, Faraone, Chaloff, Hirshfeld & Kagan, 1993); has possible linkage to anxiety disorder as a risk factor for high social anxiety (Wittchen et al 99); particularly associated to social anxiety and avoidance (Biederman, 1990); and may increase vulnerability to anxiety disorders, especially those including maladaptive social anxiety. The limitations of some of the above studies are the use of young age children and the fact that they are nonclinical subjects. The studies did not examine the relative influence of the different subscales believed to make up B1, did not access the children directly, used lay interviewers and did not span the era from the 2nd year to adolescence.

Mick & Tech (1998), also evaluated the relationship between the childhood temperament behavioural inhibition (B1) and anxiety symptomology retrospectively using 76 undergraduates enrolled in introduction psychology at the University of Texas. They found among other things. (i) some support for the specificity of an association between behavioural inhibition (B1) and social anxiety; (ii) those with current social anxiety reported significantly more childhood inhibition in social and school situations than participants with heightened generalized anxiety or non anxious controls; (iii) females reported more non social phobias than males. They then

concluded that a childhood history of behavioral inhibition (BI) may be more strongly associated with adult social anxiety (adolescence being in-between these developmental stages of life).

Mich & Telch's work also have its limitations. First, the final sample sizes were small for generalization; second, since it is a retrospective report on childhood inhibition, it is possible that the association between childhood behavioural inhibition and adult social anxiety may have been due to exaggerated reports of childhood behaviour by those with current social anxiety – a way of justifying their current problem. The use of independent informants (e.g. parents) would have strengthened their conclusions.

Schwartz, Snidman & Kagan (1999) evaluated the developmental trajectory of inhibited and uninhibited children through early adolescence with two different types of evidence –interview and observation of behaviour. They studied 79 adolescent who had been categorized 12 years earlier as inhibited or uninhibited on the basis of their behaviour with unfamiliar people and objects in a laboratory setting. As 2 year olds, uninhibited children often approach unfamiliar persons or objects while vocalizing and smiling whereas inhibited toddlers withdrew from unfamiliar incentives. These researchers wanted to know whether the two temperamental groups continued to be different in their behaviour and in current fears. They hypothesized that social anxiety would be particularly prevalent among adolescents who had been categorized in the second year of life as inhibited and also that adolescents who had been inhibited would smile and vocalize less when interacting with an unfamiliar adult. They found in the psychiatric interview that adolescents formerly classified as inhibited or uninhibited did not differ with respect to the presence of current specific fears. The two temperamental groups however did differ in the frequency of social anxiety. More inhibited than uninhibited adolescents had current generalized social anxiety. Sixty one percent (61%) of the adolescents who had been inhibited as toddlers

had current social anxiety compared with 27% of the subjects who had been uninhibited. Only 20% of those who had been inhibited reported never having generalized social anxiety, compared with 48% of the uninhibited adolescents. When definite impairment in the subjects' normal routine, academic functioning or social activities was explored, 44% of female adolescents who were inhibited as toddlers were impaired to a major degree by generalized social anxiety, compared with only 6% of the other group. Twenty two percent (22%) of males who were inhibited as toddlers were impaired by generalized social anxiety, compared with 13% of uninhibited in the second year of life. Measuring spontaneous smiles and comments under direct observation of behavior, adolescents who had been categorized as inhibited in the second year smiled fewer times when interacting with the examiner than those who had been uninhibited. There was no main effect for temperament, sex, or temperament by sex interaction for spontaneous comments. One-tailed t test however supported the hypothesis based on observation of the subjects at age two that adolescents who had been inhibited made fewer spontaneous comments than the uninhibited. Possession of an inhibited temperament in the second year predisposed the adolescents to developing social anxiety, whereas an uninhibited temperament seemed to protect the adolescent from social anxiety. The association was significant only for generalized social anxiety and not for specific fears or performance anxiety.

The present results are consistent with those of previous studies that have linked behavior inhibition to anxiety problems in early childhood (Biederman, Rosenbaum, Hirshfeld, Faraone, Bolduc, Gersten, Meminger, Kagan, Snidman & Reznick, 1990); Hirshfeld, Biederman, Brody, Faraone, & Rosenbaum, 1992). It is also in agreement with those of Caspi & Silver (1985) who found that subjects who had been inhibited at age three were lacking in social potency at age 18.

However, they stand in contrast to those of Caspi, Moffitt, Newman & Silver (1996) who did not find that inhibited children were at increased risk for anxiety disorders.

Irrational Beliefs: Stopa & Clark (1993) investigated the cognitive model of social phobia using 12 social phobics, 12 anxious controls and 12 non-patients. According to cognitive model, social phobic's become anxious when anticipating or participating in social situations because they hold beliefs (dysfunctional assumptions) which lead them to predict they will behave in a way which will result in their rejection or loss of status. These negative social evaluation thoughts once triggered can contribute to a series of vicious circles which maintain the social phobia. Consistent with cognitive model, they found that social phobics reported more negative self-evaluative thoughts than non-anxious patient controls. Social phobics think of themselves as having negative evaluation in a wide range of social situations. These thoughts produce anxiety which in turn leads to thoughts about avoidance. Focusing on negative thoughts interferes with adaptive behaviour because it prevents the social phobic from formulating a plan of how to deal with the encounter. Thus anxiety increases and stimulates more negative judgments about the self.

The social developmental factor was reviewed under two main variables – **peer neglect and acute – self consciousness**. Peer neglect is defined as experiences in which an adolescent is neither liked nor disliked, or by report of not being chosen to participate in social activities. Gilmartin (1987) from his large sample of shy and non-shy samples asked them to recall whether they were the last to be chosen when drawing up sides for games and what roles they were assigned in team activities. Shy participants on the average were 70% more likely to report being

picked last and assigned insignificant roles in sports and other recreational activities than were non-shy ones.

The second social variable to be reviewed under developmental antecedents is acute-self consciousness. This anxious self-preoccupation is believed to be due to the occurrence of three developmental processes: onset of puberty, entering a new school situation and the onset of formal operations thinking in which the child can now distinguish between the perspective of others and one's self – view. In formal operations, as adolescents begin to think about other people's thoughts, they can experience difficulties in distinguishing between what is important to the self and what is of interest to others. Some adolescents may begin to doubt a number of previously unquestioned hypotheses about the self and also begin to imagine that they are the constant focus of others' evaluative attention. This was reported by Bruch, (1989) in his study of 137 families with children averaging four and half years.

Pilkonis (1977) found that chronic public self-consciousness is significantly positively correlated with general measures of social anxiety; positively correlated with general measures of shyness; social reticence; interaction anxiousness and audience anxiousness and embarrassment. Froming Brody, Levin, et al (1996) found that children who were classified as highly self-conscious spoke for a shorter length of time in front of an unfamiliar audience and made more speech errors seemingly indicative of anxiety than those who were classified as low in self-consciousness.

In a new school model, Buss (1986) believes that the experience of developing new peer relationships and adjusting to separate classes and teachers increases exposure to evaluative scrutiny. Acute feelings of self-consciousness may diminish or persist and contribute to a

syndrome of shyness (Social anxiety) depending on the adolescent's social skill for coping with the new demands and the degree of peer and teacher acceptance.

Elkind and Bowen (1979) provide indirect support for the role of these factors in eliciting self-consciousness. In their study of 4th, 6th, 8th and 12th grade students were compared on a measure of apprehension and avoidance in various school and social situations where social (evaluative) scrutiny is high. Their result showed that 8th followed by 6th grade children (i.e. ages coinciding with onset of the three developmental factors) were acutely self-conscious. Bruch, Giordano & Pearl (1986), using an adaptation of Elkind's scale, asked a sample of always shy, previously shy and never shy undergraduates to recall feelings of self-consciousness when entering junior high school and then when entering college. The results indicated that the always shy group was acutely self-conscious at both the junior high and college age periods while the previously shy group was self-conscious only in the junior high age period. Findings from these studies suggest that developmental changes that occur for most individuals in early adolescence significantly increase feelings of self-conscious which for some people may persist and become associated with problems of shyness (social anxiety) in later adolescence. It should be noted that these studies deal directly with shyness and not specifically with social anxiety though the findings can be inferred to social anxiety when one considers the relationship between shyness and social phobia.

In order to test specifically the relationship between the developmental antecedents and the diagnosis of social phobia, Bruch, Heimberg, Berger & Collins (1989) mailed a questionnaire booklet that assessed various familia and developmental antecedents of social evaluative concerns to 21 social phobics and 22 agoraphobics who either sought or had received treatment

at the Sunny Albany Centre for stress and anxiety disorders. The social phobic sample was limited to persons with generalized fears. Their findings revealed that: social phobics reported more acute feelings of self-consciousness in school and social settings when entering junior high and had fewer dating partners than did agoraphobics from age 12 to 21. As adults, social phobics reported greater public self-consciousness and were more likely than agoraphobics to label themselves as being more shy than their peers. Despite the limitation by the absence of a non-disordered control group, the consistent pattern of relationships suggest that antecedent factors that have been shown to foster evaluative concerns in shy individuals may also be relevant in social phobic patients. Adolescents who are chronically high in public self-consciousness may also be somewhat more likely to entertain doubts about their self-presentation abilities across a wide variety of situations. Public self-consciousness increases concerns about receiving negative interpersonal evaluations and could be negatively related to self-esteem.

Interpersonal Functioning With Peers: Adolescents' relationship with friends and peers play a critical role in the development of social skills and feelings of personal competence. It is therefore crucial to review the effects of any negative relationship with peers which may inhibit adolescents' interpersonal functioning and lead clinical and developmental impairment. Four specific aspects of interpersonal functioning are reviewed.

The first is the general level of acceptance from peers and close friendships. La Greca & Lopez (1998) examined the associations between adolescent's social anxiety and their peer relations, friendships and social functioning. Two hundred and fifty (250) participants (101 boys and 149 girls) aged 15 to 18 years were used. They reported that for many adolescents, the importance of

peer group acceptance increases with age, and peaks in mid to late adolescence. This is also the period when interest in romantic attachments and opposite sex relations introduces a new dimension to social functioning – that is the desire to be accepted as a romantic partner. One might expect socially anxious adolescents to perceive their general social acceptance and their romantic appeal to be low. Adolescent's perceptions of social exclusion from their peer group may directly contribute to feelings of social anxiety. Adolescents' feelings of social anxiety might also limit their interactions with peers or inhibit their dating and romantic attachments, thereby interfering with their social functioning. They found that adolescents who reported higher levels of social anxiety felt less accepted and supported by their classmates and less romantically attractive to others. These associations were apparent for both boys and girls, although they were stronger for girls. If socially anxious adolescents perceive their general social acceptance to be low as La Greca & Lopez found, this may lead them to miss out on important socialization experiences and later may contribute to impairment in social functioning. Clinical reports suggest that about 70% of adults with social phobia report impairments in their social relationship and are less likely to marry than normal controls.

Close friendships with peers take an increasing importance during adolescence and serve many important functions like emotional support, companionship, intimacy, and a means of expressing emotions and resolving conflicts (Berndt, 2004). However, feelings of social anxiety, particularly generalized social avoidance and distress could lead to disengagement from peer interaction and therefore interfere with the development of close, supportive ties. This notion was supported by Vernberg, Abwender, Ewell & Beery's (1992) finding in their study of early adolescents – 7th and 8th graders. They reported that high levels of generalized social avoidance and distress at the beginning of the school year predicted lower levels of intimacy and companionship in

adolescents' close friendships months later. This was especially true for girls; La Greca & Lopez (1998) extended the above study by examining linkages between adolescents' social anxiety and their reports of the number of close friends, the quality of these friendships, and their perceptions of competency in their close friendships. They found linkages between social anxiety and adolescent girl's close friendships. Socially anxious girls reported having fewer best friends and these friendships were perceived to be lower in intimacy, companionship and emotional support than were the friendships of less socially anxious girls. In contrast, for boys, social anxiety was not typically related to friendships qualities, although generalized social avoidance and distress was associated with less perceived support and competence in boys' close friendships.

Despite the findings from the literature reviewed above, there are still some lapses which will need further investigation for better understanding of social anxiety and peer relationship. For example from La Greca & Lopez's (1998) work, one cannot determine whether feelings of social anxiety contributed to poor peer relations among adolescences or vice versa. Also the measures were based exclusively on adolescent reports. Some crucial data may be lost because of the exclusion of parents, teachers and peers in collecting information. Nevertheless they have given recommendations for further studies and this will definitely give a clearer understanding to the research problem.

Social Avoidance and Distress in New situations: Using Trower & Gilbert's (1989) defense system model, there are three levels of "defense system" – (i) Dominance (ii) Submissiveness and cooperative and (iii) Social escape/avoidance. Rabiner, Keane & Mackinnon-Lewis (1993) found that anxious children have more negative expectancies in peer interactions than non

anxious children. In other words, socially anxious children often assume a subordinate and submissive position in their peer relationship. They have been found to report more negative coping responses to distressing events than normals (Beidel & Randall, 1994). Children with social phobia also have shown evidence of more social withdrawal and less approach behaviour (Beidel, 1991). Two studies directly tested Trower & Gilbert's (1989) model. Hope, Sigler, Penn & Meier, (1997) using self report and global observational ratings found that socially anxious adults rated their own impact on the confederate as more competitive, submissive and succorance – seeking than did non anxious participants. Socially anxious participants reported greater submissiveness than did non- anxious participants. Ratings by independent observers however indicated no differences on the same scale. Walter & Hope (1998) assessed the relevant constructs with observable behaviours and found that social phobics exhibited greater frequencies of both dominance and cooperativeness behaviours than did a normal control group. They did not differ in submissive behaviour.

Walters & Inderbitzen (1998) used global ratings from peers, based on long-term interaction with participants. They found (i) students in the submissive group reported greater social anxiety than the other three groups (friendly dominant, cooperative and hostile dominant) in terms of total scores on the SAS-A (Social Anxiety Scale for Adolescents).

(ii) Students in both submissive and cooperative groups had higher scores on the subscale measuring social avoidance and distress in new situations than did the two dominant groups. The results from Walters & Inderbitzen (1998) study indicate that social anxiety is associated with greater social submissiveness and less dominance (that is both friendly and hostile) and provide some support for the Trower and Gilbert (1989) model of social anxiety.

There are differences in findings among the three studies. The differences may be partially due to differences in the way each study measured the relevant constructs. Hope et al (1997) used self report questionnaires and global observer ratings. Walters & Hope (1997) coded observable verbal and non-verbal behaviours using trained observers while Walters & Inderbitzen (1998) employed sociometric peer nominations on corresponding behaviour descriptors.

Peer Acceptance and Rejection: Adolescents who are socially anxious may be more prone than the less-anxious to experience rejection. Rejection experiences with peers may lead to increased social anxiety. Studies on adolescent peer relations have identified rejection as a cause for social anxiety. Bruch & Cheek (1995) reported that inhibition and withdrawal is often perceived as deviant by the peer group and responded to by rejection, isolation or bullying. The relation between peer rejection and behavioural inhibition, social withdrawal and anxiety is likely reciprocal. In other words, negative peer experiences are apt to cause doubt and insecurity in one's own skill and thus lead to social withdrawal and social anxiety.

La Greca & Stone (1993) found significant negative relations between peer acceptance and social anxiety in a sample of second through sixth graders. They found that neglected children reported more social anxiety overall than did students in the other sociometric status groups. When social anxiety was broken down into subscales both neglected and rejected children reported higher fears of negative evaluation than did popular or average children. The neglected children however reported greater social avoidance and distress than did rejected, popular and average status children. In contrast Crick & Ladd (1993) using a group of Grade three to five children who were classified into sociometric status groups found that children who were classified as average reported the greatest social anxiety, while those classified as neglected

reported the lowest levels. Children classified as neglected reported significantly lower levels of social anxiety than both average and rejected children who did not differ from one another. Vincent, Lopez & LaGreca, (1995) investigated the relation between social anxiety and adolescent self-perception of peer acceptance and found that adolescents who reported greater levels of social anxiety also reported lower perceptions of social acceptance, romantic appeal and social support.

This difference is probably due to the different measures of social anxiety and the varying methods of sociometric classification used for each study. While La Greca & Stone (1993) used the Social Anxiety Scale for Children, Grick & Ladd (1993) used a measure developed by Franke & Hymel (1984) that has never been published. The two scales appear to vary with regard to content of items.

Inderbitzen, Walters & Bukowski (1997) in their investigation of the role social anxiety plays in peer relationship using 1,973 adolescents found among other things; (i) that social anxiety may mediate the peer problems of some youth; (ii) consistent with La Greca & Stone (1993), neglected and rejected students reported greater social anxiety than did average, popular or controversial students; (iii) that there is a significant relation between peer acceptance and social anxiety in adolescence, and (iv) that there are significant differences between students in the different rejected subgroups. Specifically, results indicated that students who were classified as more submissive and rejected reported highest levels of social anxiety than students classified as aggressive and rejected. They also reported that differences across the subgroups varied depending on the specific component of social anxiety being examined. For example on the Fear of Negative Evaluation (FNE), submissive and rejected students scored highest followed by

neglected students with average and aggressive students being very similar and having the lowest scores.

In contrast, on the Social Anxiety Disorder – General (SAD –G), the submissive, rejected and neglected students scored very similar and had higher scores than did average adolescents who had higher scores than those classified as aggressive and rejected. The results suggest that social evaluative fears may be the determining factor in distinguishing between peer neglect and peer rejection for submissive and withdrawn individuals. Their data suggest that social anxiety and distress may play an equally important role in both peer neglect and peer rejection, but that Fear of Negative Evaluation is specific to rejection. The importance of multiple instruments for evaluation is also shown.

La Greca & Harrison (2005) examined multiple levels of interpersonal functioning as potential risk and protective factors for symptoms of depression and social anxiety among ethnically diverse 421 adolescents. Their findings are as follows:

- (a) Adolescent's peer crowd affiliation, and in particular belonging to a high-status crowd may confer some protection against feelings of social anxiety. This may be because adolescents who affiliate with high-status crowds may be regarded highly by their peers as is also reported by La Greca, Prinstein & Fetter (2001).
- (b) Belonging to a low-status peer crowd was also a protective factor for social anxiety. Adolescents from low-status peer crowds reported that support; friendship and companionship opportunities were some of the positive benefits of crowd affiliation. These positive qualities may be responsible for protecting adolescents from feeling

socially anxious, even if their peer crowd is not highly regarded. La Greca, et. al. (2001) found some evidence that the alternative crowd may be especially close-knit, with 94% of such teens having one or more close friends who also affiliate with the same crowd. Socially anxious teens on the other hand may be unlikely to affiliate with alternative crowds, because such teens engage in “acting out” and problem behaviours like fighting and substance use (Prinstein, Boergers & Vernberg, 2001).

- c. Relational peer victimization was substantially and significantly related to adolescents’ reports of social anxiety and depression even when negative aspects of adolescents’ close friendships and romantic relationships were considered. There are accumulating evidence regarding the aversive and destructive nature of relational and reputation-based forms of peer victimization. They suggested that peer victimization may have a greater impact on adolescents who are in the minority.
- d. Adolescents with more positive qualities in their best friendships reported less social anxiety, even when other aspects of their peer relations were considered. This suggests that a good quality best friendship may serve a protective function at least in terms of adolescents’ feeling of social anxiety. In contrast, the negative qualities of best friendships predicted feelings of depression and social anxiety. Adolescents who reported high levels of negative qualities like pressure, exclusion in their best friendship were more depressed and socially anxious.
- e. The presence and qualities of romantic relationships revealed that adolescents who were not involved in a romantic relationship, particularly as is in Hispanic youth, were more socially anxious than those who were dating or romantically involved. It must be noted however that the development of romantic relationships is a new and potentially stressful

social task and that many adolescents report distress regarding how they should behave. It is therefore possible that adolescents who are not dating feel anxious around peers because dating contributes to their status and belonging in their peer crowd. It is also possible that socially anxious adolescents may feel uncomfortable in dating situations and so delay or avoid dating (Glickman & La Greca, 2004).

In sum, relational victimization and negative interactions in best friendships may contribute to feelings of social anxiety while peer crowd affiliation (either high or low), positive interactions with best friends and the presence of a dating relationship appear to “protect” adolescents against feelings of social anxiety. Despite these findings, it is not clear to what extent such community findings can be generalized to clinical levels of social anxiety among adolescents.

2.3.8. Technology's Influence on Social Experience

Although evidence suggests that social phobia has a genetic predisposition, some research has found that technology may cause social anxiety by reducing social experience. Kraut, Patterson, Lundmark, Kiesler, Mukhopadhyay & Scherlis, (1998) followed 169 people during their first two years of internet usage. They found evidence to suggest that technology and automated services, such as gasoline and bank teller machines, are reducing the need to interact with others. These advances in technology could possibly cause people to be more isolated and socially inhibited. They found that that internet usage decreased social involvement and increased depression and loneliness. With more advances in technology, individuals have less need to interact with others in settings such as the bank and petrol stations. Social interaction has even decreased in academic settings because of the growing popularity of online degree programmes.

2.3.9. Familial Antecedents of Social Anxiety

Studies have shown that children can acquire social anxiety through parent-child relations. Some parental characteristics like overprotection, rejection, low social support, tendency to over-emphasize dressing, manners and social decorum and the amount of social interaction encouragement given by parents in relationship to children social anxiety have been researched. Allaman, Joyce & Crandell (1972) in a longitudinal study found that those who were high in need for approval perceived both parents as conveying rejecting behaviours. This relationship was stable over a seven to ten-years period and these researchers then suggest that parenting practices that convey rejection to a child may instill a preoccupation with others' evaluative remarks which may lead to a generalized fear of negative evaluation.

Parker (1979) compared patient groups on retrospective perception of parental characteristics of overprotection and emotional support. He reported that social phobics perceived both of their parents as high on overprotection and low on emotional support. Arrindell, Emmelkamp, Monsma & Brilman (1983) added rejection to parental characteristics of overprotection and low emotional support. They found similar results for overprotection and emotional support. They also found that social phobics perceived both parents as rejecting. Using about 1047 adolescents, Lieb, Wittchen, Hofler, et. al. (2000) found that high parental overprotection and higher parental rejection were significantly associated with increased rates of social phobia in offspring.

Fostering fear of negative evaluation is a tendency by parents to place excessive emphasis on the importance of proper grooming, dress, manners and other aspects of social decorum. Buss (1986) argues that this child-rearing practice may stem from a parent's concern about the opinions of

others regarding appropriate behaviour in children. If children are reminded repeatedly of how others are examining their appearance and social behaviour, Buss contends, these admonitions may contribute to development of shyness (social anxiety) because the child seek to avoid the attention and scrutiny of others. Parents can encourage their children to be sociable by encouraging them to invite playmates and friends into the home, allowing them to attend friends' parties and engaging the entire family in social activities. This parental behaviour will give opportunities to the child to acquire social skills and increase exposure to novel social situations leading to the extinction of any social fears. Daniels & Plomin (1985) found that infant shyness was related to lower parental scores on the FES Personal Growth scale.

Bruch (1989) sent out questionnaire booklets measuring three parental child rearing characteristics, three developmental factors and two variables reflecting adult consequences of social evaluative fear to 137 families. The three child-rearing variables included isolation of children, concern with others' opinions and family sociability. He reported that social phobics were more likely to perceive their parents as seeking to isolate them from social experiences, overemphasizing the opinions of others and deemphasizing socializing as a family unit with others.

A later study (Caster, Inderbitzen & Hope, 1999) examined parental characteristics in youth who are socially anxious, withdrawn or generally anxious. They reported adolescent's opinions of their parents' childrearing styles and family environment and found that those with high levels of social anxiety perceived their parents as more socially isolating of their children, less socially active, overly concerned about the opinions of others and more ashamed of their children's

shyness and poor performance, as compared to adolescents with low social anxiety. The parents of the anxious children were more likely to reciprocate their children's avoidant plans and actively discourage their children from making non-avoidant plans.

Dadds, Holland, Laurens, Miranda, Barrett & Spence (1999) presented 23 socially phobic Caucasian adolescents with two problem social situations (giving an oral report in front of popular kids; being in the cafeteria with popular kids who are making plans for the weekend). They were asked to provide plans for each situation before and after discussion with their parents. Whereas parental anxiety levels were found to be significantly higher in the adolescents who chose avoidant plans of action versus those who chose proactive plans, the adolescent's plans of action and anxiety levels were not found to significantly change after discussions with their parents. These results were mixed in terms of their support of the family enhancement of avoidance and aggressive responses (FEAR) effect.

Weems & Silverman (2008) reported that social contextual approaches suggest that factors such as poverty, parental psychopathology, exposure to trauma, and exposure to violence can exacerbate vulnerability to anxiety disorders. Also in attachment theory, human infants form enduring emotional bonds with their caretakers. When such caretakers are responsive, the emotional bonds can provide a lasting sense of security that continues even in the absence of these caretakers, whereas an inconsistent caretakers, a neglectful caretaker or other disruption in the parent-child bond may cause an insecure attachment which may manifest as social anxiety in adolescents and adults.

Childhood illness: Research has found that an incidence of childhood illness may implicate inherited temperaments as well as alter a child's physical appearance which may in turn increase social scrutiny (Buss, 1980). Briggs & Cheedle (1986) tested the relationship between childhood illness and shyness with 48 undergraduates and their parent using their medical reports. He found a link between childhood illness and social anxiety through the report of greater incidence of stomach ailments, sleep disturbances, headaches and allergies. Zimbardo (1977) reported a relationship between ordinal position within family and shyness. He found a greater tendency for single and first-born children to be shy. He advanced two explanations for this relationship. First parents' higher expectations for first-born than for younger children may lead to the development of feelings of social inadequacy for these first borns. Later born children who are at power disadvantage in the home must acquire social skills to negotiate their needs in sibling and peer relationships. If these children lack the social skills to negotiate, they may thereby develop the tendency to be shy.

Social Functioning / Social Deficits: Only mixed modest support has been found for a contention that individuals with social phobia show poorer social performance than do nonsocially anxious individuals (Stopa & Clark, 93). Beidel, Turner & Dancu (1985) studied 26 participants (13 males and 13 females) and found the socially anxious group to be less skillful than the non-anxious group during opposite-sex interaction. No significant differences were however found between groups for observer-rated anxiety, skillfulness in same-sex interaction, and skillfulness in an impromptu speech. The socially anxious group rated themselves as more anxious during all the tasks but less skillful only in the opposite- sex interaction.

Strahan & Conger (1998) reported that their study on effects of social anxiety on performance and perception found no difference between high and low-anxious groups in their global performance on the interview task. Their finding supports other studies that found no significant differences between the performances of highly or clinically socially anxious individuals and controls on a variety of demanding social skills (Rapee & Lim, 1992).

In contrast to the above findings, Beidel, Turner, Young et. al. (2006) and Strahan & Conger (1998), reported that adolescents with social phobia exhibit substantial social skill deficits when compared to age-matched peers with no psychiatric disorder. These deficits were evident to individuals blind to diagnostic group and existed in both one-on-one social interactions and a read-aloud task. Beidel et. al. (1999) and Spence et. al. (1999) also reported that socially phobic children have impaired social skills.

The differences in the above findings could have been caused by the differences in method (interview was used for young adults Strahan & Conger (1998) and actual performance in interaction by Beidel, Turner & Dancu (1985). Beidel et. al (1999) used adolescents while Turner, Young et al, (2006) used the demographic characteristics of participants – some psychiatric patients, some socially anxious individuals and different age groups.

2.3.10. Knowledge of Social Anxiety Disorder Among Professionals

Despite the importance of understanding disorders such as Social Anxiety Disorder, several lines of evidence point to an alarming lack of knowledge among professionals regarding adolescent's mental health issues. Various sources of data suggest that social anxiety disorder is frequently

overlooked by health care and educational professionals despite its high point prevalence of 15.1% (Shaffer et. al., 1996).

Blum & Bearinger (1990) examined knowledge and attitudes concerning various domains of professional training and perceived competence in adolescent health care in a sample of more than 3,000 health care professionals. Across the different disciplines, professionals reported that they received insufficient training in working with adolescent psychopathology. Shockingly, both physicians (73%) and psychologists (60%) reported a lack of interest in continuing education and acquiring skills needed to better address adolescent concerns.

DenBoer & Dunner (1999) assessed the knowledge and perception of European and North American psychiatrists and primary care physicians regarding social anxiety disorder using interview. The physicians were then asked to maintain a diary outlining demographic, diagnostic and symptom data of their next 20 patients presenting with any psychological disorder. DenBoer & Dunner subsequently assessed the same patients and found that 25% of the patients met diagnostic criteria for social anxiety disorder. These patients however went undiagnosed by the psychiatrist and primary care physicians, worse still, approximately 50% of the primary care physicians in Europe and North America were unaware of the term social anxiety disorder. The above study confirms the growing evidence that social anxiety disorder is especially under-recognized among health care professionals. Zamorski & Ward (2000) commented on the lack of knowledge of the disorder in general medical practice settings while Liebowitz, Gorman, Fyer & Klein (1985) termed social anxiety disorder the “neglected anxiety disorder”.

Given how frequently they interact with adolescents, one will assume that school personnel (teachers, school counselors, and school psychologists) are the professional who are in the best position to provide the early recognition of social anxiety disorder in adolescents. Herbert, Crittenden & Dalrymple (2004) studied 51 (28 certified teachers, 17 certified school psychologists), personnel's working in schools to evaluate their knowledge of SAD among other things. They found (a) that these education professionals demonstrated significantly lower knowledge of Social Anxiety Disorder (SAD) relative to Attention Deficit Hyperactivity Disorder (ADHD) despite the fact that SAD appears to be more common than ADHD (Shaffer et al, 1996); and (b) school counselors scored lower in Kiddier Schedule for Affective Disorders (KSADS) than school psychologists. Participants expressed their desire (though not asked) through several notes accompanying questionnaire packets to have additional reading materials about SAD.

The possible explanations for these findings include (i) individuals with social anxiety disorder usually go out of their way to avoid drawing attention to themselves and so are not disruptive (Kashdan & Herbert, 2001). Education professionals may therefore not notice them. (ii) Social anxiety disorder may be mistaken as subclinical shyness and therefore dismissed as a personality trait lacking clinical significance, (ii) No educational information on SAD have been given to education professionals as compared with other child and adolescent disorders like ADHD.

The studies reviewed are not without their limitations. For example, Herbert, et. al. (2004) used an instrument (KSADS) that is new, untested and with unknown its psychometric properties. Not much work has been done with adolescents who have social anxiety, though this may also be

responsible for the lack of knowledge giving as a bidirectional effect. The response of Herbert et. al. (2004) participants showed that professionals are interested in the welfare of their students (adolescents) but are kept away from helping because of lack of knowledge.

2.4. Social Support and Social Anxiety

Three models of social support have been employed in discussing its relationship with social anxiety. They are (i) social causation model which simply assumed that lack of social support causes social anxiety; (ii) social selection model argues that social anxiety causes social support, that is individuals who are more anxious are less able to attract and maintain supportive relationships than are less anxious individuals; and (iii) reciprocal effects model posits that the causal relationship between social support and social anxiety is largely reciprocal thus, although social support impacts subsequent social anxiety, social anxiety also affects subsequent social support (Stice & Barrera, 1995).

La Greca & Lopez (1998) examined associations between social anxiety and adolescents' perceived social support from significant adults (that is parents and teachers) and found that social anxiety was not related to social support from adults. Cross-sectional research also revealed that more anxious individuals report receive less social support than do less anxious individuals (Caldwell & Reinhart, 1988; Haemmerlie, Montgomery & Melchers, 1988).

Calsyn, Winter & Burger (2005) compared the strength of competing causal models in explaining the relationship between perceived support, enacted support and social anxiety in adolescents. They collected longitudinal data on social anxiety and social support from college

students to test the reciprocal effects model, and compare it to a mediated reciprocal effects model. They therefore replicated the previous research on the causal relationship between depression and social support. They also examined whether perceived support functions as a mediator between social anxiety and enacted support and assessed the strength of the mediated (that is indirect) effects. Their finding showed that perceived support did not mediate the relationship between social anxiety and enacted support though the overall fit of the mediational model was slightly better than the direct effect model.

The generalization of the study is limited. First, is the short interval between the two time longitudinal studies – just three months. This interval may not have been long enough to adequately test the competing hypotheses. Second, the sample was constrained to college students. Third, the perceived support scale was moderately skewed. Nevertheless, it is the first study to examine the causal relationship between social anxiety, enacted social support and perceived support with longitudinal panel data.

2.5. Cultural Differences in Social Anxiety

The experience of intense anxiety associated with social situations in which one might be viewed by others appears to be a universal phenomenon (Mesquita & Frijda, 1992). There are however, numerous cultural variations, both in the expression of such anxiety and in the situations and contexts in which it is elicited. In other words, there is likely to be cultural variations in the perception of what constitutes social threat.

Two main cultures have been identified – the individualistic cultures and the collectivist cultures. In individualistic cultures, the self is more independent. Individualism is encouraged and one

receives praise of standing out from the crowd. These cultures tend to promote an independent sense which is defined by one's unique, individual characteristics and abilities. The sense of self is developed through achieving independence from others and is conceived of as an autonomous, bounded entity (Markus & Kitayama, 1991; Singelis, 1994). In collectivist cultures, the self is defined largely by one's familial or social group. That is, one's self is an extension of that of a group (Singelis & Sharkey, 1995). An accomplishment or social deviation reflects directly and foremost upon the group. Individualism, or derivation from the group is not tolerated. One's sense of self is interdependent with one's group and the individual is defined only with reference to his/her larger group and is but a part of a larger whole (Triandis, 1989).

Each of these two culturally-defined and elaborated view of the self can be seen as potential objects of social threat. Kleinknecht, Dinnel, Kleinknecht, Hiruma, & Harada (1997) in their investigation of patterns of relationships among the socio-cultural variables of self-construal and two culturally-influenced forms of social anxiety and phobia found that the independent self-construal is inversely related to all social anxiety variables in both American and Japanese samples. That is, the more respondents define their selves as independent from others, the lower they score on social phobia scale. It can be inferred from the findings that individual from the western cultures where they have been taught to be able to stand on their own will experience less anxiety in social situations.

Singelis & Sharkey (1995) in their study of culture, self-construal and embarrassability using 503 Euro-American and Asian-American university students found that both culture and self-image are strongly associated with embarrassability – that is strong independent self-construal correlates with resistance to embarrassment, whereas strong interdependent self-construal

correlates with increased susceptibility to embarrassment. Asian-Americans were less independent, more interdependent and more embarassable than were Euro- Americans.

Collins (2003) reported that adolescent dating involvement has been found to be remarkably similar across most ethnic groups. La Greca & Harrison (2005) in their investigation of 421 adolescents interpersonal functioning using Hispanic (Latinos), non-Hispanic White, Black and Mixed/other adolescents reported that relational victimization was related to social anxiety for hispanic and non-Hispanic White, but was stronger for white. Second, less positive interactions with romantic partners was related to higher social anxiety only for Latino adolescents. There was also some indication that the absence of a dating relationship contributed to greater social anxiety for Hispanic adolescents.

The findings indicate cultural differences in romantic relationships and victimization among adolescents. La Greca & Harrison's findings were obtained from a community sample of adolescents. One is therefore not sure whether the findings can be generalized to clinical levels of social anxiety. The Hispanic adolescents have the largest representation 67.1% in the study sample. This might have influenced the findings. One will however appreciate this representation since individuals of Hispanic ethnicity are the largest and fastest-growing ethnic group in the United State.

Differences in culture may be between the two extreme cultures – individualistic and collectivistic. Other factors like environmental, long interaction and others may be responsible for the similarities and they may need to be explored the more.

2.6. Effects of Social Anxiety on Sufferers

Judging from the comorbidities of social anxiety, one will not be surprised that this disorder will also have debilitating effects in other areas of the sufferer's life. La Greca & Lopez (1998) reported that if socially anxious adolescents perceive their general social acceptance or romantic appeal to be low, (as their study indicates) this may lead to the adolescent's missing out on important social experiences, and over time, may contribute to impairments in social functioning. Consistent with this, clinical reports suggest that about 70% of adults with social phobia report impairment in their social relationships (Wittchen, et. al., 1999). Turner, et. al. (1986) found that social phobics suffer considerable impairment in their academic, occupational and social functioning. Among their sample, 83% felt that their fear inhibited academic functioning by preventing them from speaking in class, joining clubs or athletics teams, being elected to leadership position in clubs or student organizations, or preventing them from getting better grades due to nonparticipation in classroom discussion. Baer & Garland (2005), in their pilot study used 12 adolescents (aged 13 to 18 years) diagnosed with social anxiety and gave a similar report. Schnerer et. al. (1994) examined the nature of impairment functioning of persons with social anxiety. Thirty two (32) patients with social anxiety and 14 normal control subjects were used. Impairment was assessed using the Disability Profile and Liebowitz's Self-Rated Disability Scale. More than half of all social phobic patients reported at least moderate impairment at some time in their lives due to social anxiety in the areas of education, employment, family relationships, marriage/romantic relations, friendships/social network and other areas. Social phobic patients were rated more impaired than normal controls on nearly all items of both measures. Kessler, Foster, Saunders & Stang (1995) reported that social phobia is associated with failure to enter and complete college in males and females. They explained that this can be

devastating because educational success is critical for career and vocational achievement, financial security and the development and maintenance of a healthy lifestyle and well being. Ninety two percent (92%) felt that their occupational performance was also significantly impaired. These participants cited inability to make informal suggestions in staff meetings and to make presentations before small or large groups resulting in lack of career advancement. In general social functioning, 69% reported impairment, stating that their fear prohibited them from attending social events connected to their work, joining philanthropic organizations, or being elected to leadership positions in the same organization. Finally, 50% of the unmarried social phobic individuals believed their heterosocial functioning was limited, either by their hesitancy to engage in social activities or their inability to establish a level of intimacy conducive to long-term relationships. Glickman & La Greca (2004); Jaffe- Gill et. al. (2006), Carver et al (2003), Davies & Windle, (2000) and Kuttler, La Grace & Prinstein (1999) have provided similar reports.

Other negative effects of social anxiety on sufferers are low quality of life (Safren, Heimberg, Brown & Holle 1997) and low self-esteem, (Jaffee-Gill et. al., 2006). The above reports clearly show that social anxiety has significant negative impact on the life and functioning in a majority of those suffering from it and the significant impairment is highly prevalent.

Apart from individual consequences of this disorder, societal consequences have been enumerated by Weiller, Bissierbe, Boyer, Lepine & Lecrubier, (1996), and Kessler et al (1995). They are less training of the workforce, decreased participation and functioning in civic activities, and greater demands on the social welfare system. All these broaden the consequences of the disorder impacting the emotional, occupational and social functioning of the individual

over a long term, with individuals suffering functional impairment in the areas of school, social relations, family life and employment.

2.7. Treatment of Social Anxiety

Researchers have employed different techniques of therapy to treat individuals with social anxiety. Some of these techniques are reviewed below.

2.7.1. Education and Social Support

Liebowitz (1999) in his review of the literature on the diagnosis and treatment of social anxiety disorder reported that education and social support are important therapeutic subscales for patients with social anxiety disorder. This, he found useful because these individuals are often isolated and have difficulty communicating with others. They feel that they alone have the condition. Appropriate education will help patients understand the illness, and social support may help them cope with their symptoms and other forms of treatment.

2.7.2. Interpersonal Psychotherapy (IPT)

Interpersonal therapy (IPT) focuses on working through troubled personal and social relationships that may contribute to a person's condition. As one learns to deal with others more effectively, a person may be able to reduce conflict in daily life and gain support from family and friends. Interpersonal psychotherapy is a 12 – 16 week method that is described in manual form and is based on the premise that psychiatric disorders occur and are maintained within an interpersonal context. Lipsitz, Markowitz, Cherry & Fyer (1999) used nine patients seeking treatment for social phobia at the New York State Psychiatric Institute Anxiety Disorders Clinic.

The number of patients were reduced to nine because these researchers excluded patients with comorbidities and those with social anxiety who are already on medication and/or other forms of psychotherapy. They found that (a) interpersonal psychotherapy appeared to be a promising treatment for social phobia. In post-hoc comparisons, patterns and magnitudes of improvement approximated those of established treatment (e.g. cognitive-behavioral therapy); (b) Patients in the study gave examples of qualitative life improvements, such as obtaining a new job, returning to school, and initiating dating – all suggesting that changes were clinically meaningful; and (c) Independent – evaluator – rated change was gradual and mostly occurred between 7 and 14 weeks. Assessment were conducted weeks 0, 7 and 14, comprising ratings given by independent evaluators and self-ratings.

This was the first systematic study of interpersonal psychotherapy for an anxiety disorder (it was originally designed for depression), and it appeared to be a promising treatment for social phobia. This study however has its limitations. (i) the small sample of nine patients and (ii) there was no control group. Its results with clinical patients however give this therapy a promising place for use with social anxiety individuals.

2.7.3. Cognitive–Behavioural Therapy

Cognitive–Behavioural Therapy (CBT) helps an individual recognize negative thought patterns and behaviours and replace them with positive ones. According to Velting & Albano (2001) CBT involves specific psychoeducation, skills training, exposure methods and relapse prevention plan for addressing the nature of anxiety and its subscales. Other researchers have demonstrated that CBT is an effective treatment for SAD (Rodebaugh, Holaway & Heimberg, 2004) and has

been identified as an empirically-supported psychological treatment of SAD (Antony & Rowa, 2008).

Using 58 participants (39 White and 19 African American preadolescents) with social phobia, Ferrell, Beidel & Turner (2004) examined their psychopathology and behavioural treatment. They reported among others things (i) no differences in symptoms and degree of functioning impairment. (ii) no group differences in parental report and clinician ratings or skills of anxiety when the participants engage in social interaction or public performance tasks; (iii) both groups demonstrated significant improvement across self-report, parental report and clinician ratings of social phobia and other aspects of psychopathology from a comprehensive behavioural treatment program for childhood social phobia. From the report, it appears that the manifestation of childhood social phobia is consistent across African-American and White preadolescents. It may be inferred that environmental factors may have influenced this.

Chen, Nakano, Ietzugu, Ogawa, Funayama, Watana, Noda & Furukawa (2009) studied the effectiveness of Cognitive Behavioural Therapy (CBT) using 57 outpatients diagnosed with social anxiety. They were evaluated using eight self-report and one clinician-administered scales which measure various aspects of social anxiety disorders symptomatology at the beginning and at end of the programme. They concluded that CBT significantly reduced social anxiety disorder symptoms.

Wong, & Sun (2006), used a randomized wait-list control design to examine the efficacy of cognitive behavioural group therapy for Chinese people with social anxiety. Thirty four (34) participants were randomly assigned into experimental and control groups. The participants in

the experimental group received a 10-session CBT treatment while the control group participants did not. They found that participants who received group CBT showed significant decrease in social anxiety, dysfunctional rules and negative emotions and significant increase in adaptive coping skills and positive emotions compared with the control group. These researchers concluded that these results provide evidence of the efficacy of group CBT for Chinese people with social anxiety.

Kendall, (1994) used 47 participants between the ages of eight and thirteen years. He randomized them to either the CBT programme or a wait-list control condition. He used Kendall's Coping-Cat Programme. There were improvements on self-and parent-report measures. Sixty six percent (66%) of the treated participants showed evidence complete remission of their primary anxiety diagnosis at post-treatment. Results were maintained at one year follow up. In a two to five year follow up study, 36 of the treated participants were reassessed and gains were maintained on self-report, parent report and diagnostic interview measures (Kendall & Southam-Gerow, 1996).

In the study by Kendall, Flannery-Schroeder, Panichelli-Mindel, Southam-Gerow, Henin, & Warman, (1997), 94 participants' ages 9-13 years were also randomized to the CBT protocol or a wait-list condition. Over 50% of treated participants were free of their primary diagnosis at post-treatment, with significant reductions in clinical severity for those remaining symptomatic. Gains from CBT were maintained at one year follow-up, with the majority evidencing greater gains over time. Other investigators have also demonstrated the efficacy for CBT in group format (Silverman, Cobham, Dadds & Spence 1998).

Albano, Marten, Holt, Heimberg & Barlow (1995) adapted the protocol of Cognitive Behavioural Group Therapy-Adolescents (CBGT-A) for adolescents ages 13 through 17. This

protocol was based upon the success of Cognitive Behavioural Group Treatment for adult social phobia. CBGT-A involves 16 group sessions incorporating psycho-education, skills training (cognitive, social and problem solving) and behavioural exposures. The treatment can be with or without parents. With the 27 adolescents who participated, significant changes were seen from pre-treatment to post-treatment. A 6-month follow-up, for all participants with independent diagnosticians rating the adolescents as significantly improved following treatment. Seventy percent (70%) of them no longer meet diagnostic criteria for social anxiety. Self-reported social anxiety also decreased over time in addition to a reduction in the number of situations rated as significantly, fear producing.

Hayward, Killen, Kraemer & Taylor (1998) also evaluated Cognitive Behavioural Group Therapy (CBGT) with 12 adolescent girls without their parents. These girls demonstrated significant reductions in self-reported social anxiety and clinician-rated impairment as compared with a wait-list control group of 21 girls at immediate post-treatment assessment. A significant proportion of the treated girls were diagnosis free at post-treatment compared with control group. There was a trend for the treated adolescents to have a lower risk for developing major depressive disorder during the follow-up period. Other studies (e.g. Heimberg, 2001 and Taylor, 1996) have also demonstrated the efficacy of CBGT. Heimberg, Salzman, Holt & Blendel (1993) found that patients who received CBGT retained their gains at five year follow-up and remained significantly less symptomatic than patients who had received an education support treatment.

Baer & Gerland, (2005) developed and evaluated a cognitive-behavioral group treatment program for adolescents with social phobia that would be practical for use in a community

psychiatry setting. It was a 12-week behavioural group treatment. The adolescents with social phobia were randomly assigned to the behavioural treatment group or the wait-list control group. Both groups were assessed at baseline and immediately after the treatment or wait-list period. Their study supports cognitive-behaviour group therapy for adolescents with social phobia as an effective treatment. There was significant improvement in social phobia symptoms using both subjective and objective measures. Ten of their 11 subjects were treatment responders (91%) and four (36%) were in remission post-treatment, no longer meeting criteria for social phobia. There was no spontaneous remission of symptoms in the wait list control group despite the fact that they were receiving ongoing standard psychiatric care including, medication management during the period.

The above findings on the efficacy of CBGT are encouraging. However, it still has its fallouts. Firstly, some of the patients failed to achieve optimal benefit even from well-conducted programme. Secondly, the logistics of CBGT can be difficult. Patients may have to wait longer for treatment to start than in individual treatment because it takes time to assemble a group. Thirdly, there is less flexibility about when sessions can be scheduled; this may lead to less complete attendance than in individual treatment. Fourthly less attention may be given to individual problems and dysfunctional beliefs and lastly, there may be an intensification of avoidance behaviours in a group situation that may interfere with response to treatment in some individuals. These do not rule out the advantages of group therapy's greater ease in simulating social situations in role plays, the exposure of simply being in a group (which may be very beneficial to social phobics), mutual support from group members, potentially helpful social

comparisons, vicarious learning while other group members are performing role plays and cost-time effectiveness of group therapy.

Strangier, Heidenreich, Peltz, Lauterbach & Clark (2003), compared individual therapy programme (CTP) with its effectiveness with a group version of the programme. Patients were randomly assigned to individual cognitive therapy, group cognitive therapy and a wait-list control group. Their results suggest that individual cognitive therapy is an effective treatment. Individual cognitive therapy was associated with significant pre-treatment to post-treatment improvement on all measures of social phobia and was superior to the wait-list control condition at post-treatment and at follow-up. The superiority of the individual treatment was also reflected in the therapist ratings. Whereas in 50% of individual treatment cases, therapist ratings indicated that patients no longer met the criteria for social phobia at post-treatment only 13.6% of the group treatment patients were no longer diagnosed as social phobics after treatment. Also, the effects of the individual treatment condition can be classified as large, whereas the group treatment yielded medium effects.

It should be noted that therapist spent more time with individual patient (15 hours) whereas he/she spent 12 hours per patient in group treatment. This may also mean that more money is spent. Among possible psychological treatments for social anxiety disorder, the best studied are Cognitive Behaviour Therapy (CBT) and Cognitive Behavioural Group Therapy (CBGT) and both have been found effective either for individuals or groups. The present study will also use Cognitive Behavior Group therapy for her treated participants because of the time limitation for the study and the financial constraints.

Some of the cognitive-behavioural treatment strategies that are empirically supported for social phobia include cognitive therapy, exposure to feared situations, social skills training, and applied relaxation. Often, treatment packages include several of these subscales, depending on the needs of the patient.

Social Skills Training (SST): Many researchers have defined Social Skills Training (SST). According to Koenigsberg (2007), social skills training is a form of behaviour therapy used to help individuals who have difficulties relating to other people. It can be used by therapists, teachers and trainers. Braaten, (2002) defines SST as strength based essential component of intervention programmes for children and youth with challenging behaviour. Sheridan & Walker (1999) define it as the interpersonal behaviours that permit an individual to interact successfully with others in the environment. It is a goal directed, learned behaviours that allow one to interact and function effectively in a variety of context; an individual's situation-specific behaviours that others judge as socially appropriate. The goals of social skills training include:

- a. teaching people the skills needed to sustain social interactions that will lead to positive outcome;
- b. providing relevant social skills instruction that will generalize into daily routines;
- c making socializing fun so that individuals want to socialize;
- d. helping typical peers and professionals become more understanding, accepting and engaging of those with social difficulties;
- e. teaching individuals to be more precise and accurate in their information processing, and therefore includes cognitive restructuring; and
- f. teaching people to identify non-verbal and verbal clues (Koenigsberg, 2007).

Antony & Rowa (2008) reported that social skills training as a technique of cognitive-behavioural therapy is based on the assumption that social anxiety is partly related to impairments of social skills. These impairments confirm the individual's view of himself/ herself as inadequate. Social Skills Training is one of the basic strategies used to treat SAD in children and adolescents. Granholm, Macquaid, McClure, Link, et.al. (2007) in their study of 70 older people with schizophrenia using Cognitive Behavioural Social Skills Training to improve functioning found that participants showed significantly greater cognitive insight at the end of the treatment and self-reported performance of living skills in the community that were sustained one year after the therapy ended.

In an earlier study by Granholm and associates (2005), 76 middle-aged and older outpatients with chronic schizophrenia were administered with Cognitive-Behavioral Social Skills Training (CBSST) over 24 weekly group sessions. Result showed that patients receiving CBSST achieved significantly greater cognitive insight, indicating more objectivity in reappraising psychotic symptoms and demonstrated greater skill mastery. Herbert, Gaudiano, Rheingold, Myers, Dalrymple & Nolan (2005) found that CBT with Social Skills Training as a component was more effective than CBT without Social Skills Training are no longer meeting criteria for SAD of Post-treatment compared to 38% among those without SST.

Fombonne (2007) in his study using adolescents with autism found that Social Skills Training has a discernible increase in patients' social skills over the course of the sessions with an improvement that was maintained outside the training groups. The training also helped some of

the adolescents reduce problems with excessive sensitivity. In another study of adolescents with Asperger Syndrome and high functioning autism, reports of skill improvement from both the adolescents and their parents were received. Parent reported improvement suggesting that social skills learned in group sessions generalize to settings outside the treatment group (Tse, Strulovitch, Tagalakis, Meng & Fombonne, 2007).

2.7.4. Pharmacological Treatments

Though it is out of clinical etiquette for psychologists to use drugs for their patients, yet it will be injustice to Psychiatrists if it is not mentioned that drug therapy is also used for the treatment of social anxiety disorder. Among the commonly prescribed drugs are Selective Serotonin Reuptake Inhibitors (SSRIs) – a class of antidepressants, Monoamine Oxidase Inhibitors (MAOIs) and Reversible Inhibitors of Monoamine Oxidase Subtype A (RIMAs).

Monoamine oxidase inhibitors (MAOIs) were among the first medications to be studied in relation with SAD. Earlier they had been shown efficacious for the atypical form of depression, which shares with SAD the feature of prominent interpersonal sensitivity. Phenelzine (Nardil) has appeared highly effective for SAD in several controlled trials (e.g. Liebowitz, Schneier, Campeas, Hollander et. al, 1992), but it is now generally reserved for the treatment of refractory cases due to the risk of hypertensive reactions and the attendant need for dietary restrictions.

Findings from more than 30 randomized placebo-controlled trials of six different SSRIs and the SNRIs venlafaxine have also supported the efficacy of Serotonergic medications for SAD. Recent meta-analyses by Ipser, Kariuki, & Stein (2008) and Blanco, Schneier, Schmidt, Blanco-Jerez, Marshall, Sanchez-Lacay, & Liebowitz (2003) demonstrate that SSRIs and venlafaxine yield increased response rates and greater magnitude of improvement compared to placebo. This

group includes all the medications that are FDA-approved for social anxiety disorder: paroxetine (Paxil, Paxil CR), sertraline (Zoloft), venlafaxine (Effexor XR) and fluvoxamine (Luvox CR). There is no consistent evidence for superiority of one medication within this class over another, although support may be weakest for fluoxetine (Prozac), with two studies failing to demonstrate efficacy (Kobak, Griest, Jefferson, Katzelnick, 2002; Clark, Ehlers, McManus, Hackmann, et. al., 2003) and only one positive study (Davidson, Foa, Huppert, Keefe, et.al., 2004) in SAD. This group of medications is also the best-studied in children with SAD. Three controlled trials have supported their efficacy for the treatment of SAD in children aged six to 17 (Birmaher, Axelson, Monk, Kalas, et. al., 2003; Wagner, Berard, Stein, Wetherhold, et.al., 2004; March, Entusah, Rynn, Albano & Tourian, 2007).

Studies have shown that the combination of drug and psychotherapy may prove more effective for Social Anxiety Disorder. Heimberg, Liebowitz, Hope, Schneier, et. al., (1998) completed a two-site study in which 133 patients were randomized to CBGT, the MAOI phenelzine, ES or pill placebo. After 12 weeks of treatment, CBGT and phenelzine produced similar proportions of treatment responders, and both active treatments had higher proportions of responders than the placebo or ES conditions. However, phenelzine patients were significantly more improved than CBGT patients on some dimensional measures. After the 12-week acute treatment phase, patients responding to CBGT or phenelzine received maintenance treatment for six months, which was followed by a 6-month follow-up (Liebowitz, Heimberg, Schneier, Hope, Davies, Holt, Goetz, Juster, Lin, Bruch, Marshall, and Klein, 1999). Over the course of maintenance and follow-up, patients treated with CBGT were less likely to relapse than were patients treated with phenelzine, and this was especially the case among patients with generalized SAD. Thus,

phenelzine may provide somewhat more immediate relief, but CBGT may provide greater protection against relapse

(Liebowitz et. al., 1999).

Summary of Review Literature.

The empirical studies reviewed span the etiology of social anxiety to its treatment. Crucial areas like gender differences, its onset, age differences, its prevalence, comorbidity, developmental and familial antecedents and its effects on sufferers were all reviewed. The essence of this review is to enable this researcher to assess the different areas where social anxiety has been researched, develop a conceptual hypothetical model, compare and validate the present study with previous findings. The areas that are yet to be explored were also reviewed. The reviewed studies also help the researcher to contribute to knowledge by exploring areas that have not been either or adequately studied. In Nigeria, to the best of this researcher's knowledge, there is no reported work on the situational and/or presentational stimulus that triggers social anxiety and any treatment modality in adolescents despite the numerous studies in the western world. For this study, such areas include developing an instrument that can be used for adolescents, assessing the different situations that trigger social anxiety, report on its prevalence, examine how educational level influences social anxiety and validate the effectiveness of Cognitive Behavioural Therapy in treating social anxiety.

2.8. Research Hypotheses

In order to answer the research questions, four hypotheses were formulated and tested. They are:

- 1 Female participants will have significantly higher scores in measures of SAS than male participants.
- 2 There will be significant trend in the progression of social anxiety from the younger adolescents to the older ones.
- 3 Participants with low educational attainment will report significantly higher levels of social anxiety than those with high educational attainment.
- 4 Participants who are managed with Social Skills Training will manifest less social anxiety than those who are not managed (the control group).

CHAPTER THREE

METHOD

The study was carried out in three phases. The first phase focused on the development, standardization and validation of Social Anxiety Scale (SAS). The second phase focused on the assessment of social anxiety and the third phase was devoted to the management of social anxiety.

Phase 1

3.1 Development, Standardization and Validation of Social Anxiety Scale.

The goal of this phase of the study was to develop and establish the psychometric properties of the Social Anxiety Scale (SAS) which was used as the instrument in Phases 2 and 3 of the study

3.1.1 Study Location.

This study was carried out in four locations in Lagos metropolis namely: (i) C.M.S. Grammar School, Bariga; (ii) Birrel High School, Yaba; (iii) Akoka High School, Akoka; and (iv) University of Lagos. These locations were chosen because of their easy accessibility; and cost effectiveness (less money for transportation).

3.1.2 Sampling Technique.

A combination of purposive (few of the arms of the selected classes were used) and randomized stratified (selection based on the different arms or level of the classes) sampling techniques were used in selecting the samples in all the location. The participants were taken from the general population. In other words, they showed no sign of any physical or cognitive impairment.

3.1.3 Participants.

The target population for this phase of the study was secondary school students and year one university undergraduate students. A total of 464 participants with age range 12 to 22years (mean = 17.55 and SD = 2.93) took part in this phase of the study. Two hundred and twenty (220) of these were secondary school students in JSS3, SSS1, and SSS 3 aged between 12 and 16 years. SSS2 students were not available for use at the time of data collection. The remaining 244 were year one undergraduate students from University of Lagos aged 17 to 22 years.

3.1.4. Research Design.

A Survey design was used for this phase of the study in which two psychological tests (SAS and FNE) were administered concurrently to 500 participants out of which 464 were used in analysis. Correlational design was used to determine the relationship between the newly developed measure SAS and FNE. In order to obtain the factorial validity of SAS, the Principle component method with iteration and varimax rotation were used.

3.1.5 Instruments.

Two psychological instruments as well as Personal Data form were used to elicit information from the participants. They are:

- (i) **Personal Data form:** This consists of 8 items designed to obtain demographic information such as name, gender, age, date, name of school, class or level, religion and ethnic group. (Appendix 1)

- (ii) **Social Anxiety Scale (SAS):** This is the newly developed instrument for this study. It consists of 35 items with 7 subscales measuring fear of public speaking, fear of public toilet use, fear of dating, fear of eating in public, fear of authority figure, fear of social inferiority, and general social anxiety. It yields scores on a 5-point Likert-scale response format ranging from 1 (not at all) to 5 (very much) (Appendix 2)
- iii) **Fear of Negative Evaluation (FNE):** This instrument was developed by Watson & Friend (1969) to measure an aspect of social anxiety: inadequate social interaction, shyness and performance anxiety. It consists of 30 items that yield scores on a true or false response format. The reliability coefficients reported by Watson and Friend (1969) are: one month interval test-retest coefficients of 0.78 and KR-20=0.94. Also, Omoluabi & Agbu (2003) using Nigerian samples reported one month interval test-retest reliability coefficients of 0.81; split-half reliability coefficient of 0.76; Odd-even reliability coefficient of 0.76 and KR-20=0.86. Odedeji (2004) obtained a concurrent validity coefficient of 0.63 with State-Trait Anxiety Inventory Form Y-2 (Spielberger, 1983) using Nigerian samples (Appendix 3).

3.1.6 Procedure for the Development of SAS.

Some Adolescents were asked to write a list of statements of what they think and know when they hear the term “social anxiety”. The researcher added their responses to some items that were selected from literature (La Greca & Harrison, 2005; Lahey, 2001) and theories (Leary, 1995; Turk,et.al., 2001) reviewed. This generated a pool of 150 items. Some experts assessed these items for content and face validity. At the recommendation of these experts, some items were

removed while others were either reworded or revised. The number of items was reduced to 50. The draft items was written with a 5-point Likert-scale response format ranging from 1 (not at all) to 5 (very much), an acceptable format for instruments designed to measure beliefs and attitudes (Gable & Wolf, 1993). After administering the 50 items to a selected 30 adolescents comprising of 15 males and 15 females aged between 12 and 20 years, the items were further reduced to 35 due to low correlations of the 15 items dropped during item analysis.

This new scale SAS and FNE were put together and administered on 500 participants. Permission was taken from the principals of the secondary schools and some arms of the different classes were purposively selected. Students of the selected arms were addressed in their classrooms. The researcher employed two research assistants who were graduates of Psychology in the process of data collection. They were sufficiently briefed about the purpose and contents of the two instruments as well as the technicalities of their administration. The researcher and her field assistants sought the cooperation and consent of the individual participants and those who were not interested were allowed to leave the classroom. Those who volunteered to fill the two instruments were informed on (i) the harmlessness of the exercise, (ii) the importance of filling every item on both instruments and (iii) the importance of individual work. The instruments were read and explained to them after which they were distributed to them. They were encouraged to ask questions in case they encountered any expression they did not understand. They were also informed that there was no right or wrong answer to the items and so should be as honest as possible. No time limit was given but they were still encouraged to complete the questionnaire as fast as possible. Each instrument was scanned for completion and thoroughness. The ones that were not adequately filled were discarded. A total of 464 out of 500 instruments administered were found to be appropriate for use.

Scoring and Data Collation.

The completed instruments were scored following the scoring instructions provided in each manual. For the SAS, a participant's score for each subscale was obtained by adding the scores in all the shaded numbers in each component. A participant's total score on SAS was the sum scores of all the subscales of SAS.

For FNE scores, one point was awarded for each "True" response shaded in items 2,3,5,7,9,11,13,14,17,19,20,22,24,25,28,29 and 30 while one point was awarded for each "False" response shaded in the remaining items. The items with false responses were the reverse of those with true responses. The sums of both true and false responses obtained were added to obtain the overall test score.

3.1.7 Data Analysis.

Statistical Package for Social Scientist (SPSS) version 17 was used to analyze the data. The means and standard deviations, Gutman split-half, Cronbach's alpha reliability, odd-even reliability and concurrent validity (Pearson's product moment correlation statistics) were computed. Principal component factor analysis with iteration and orthogonal varimax rotation was also used to establish the factorial validity of SAS.

Phase 2

3.2 Assessment of Social Anxiety.

The main goal of this phase of the study was to identify some of the demographic and psychological factors associated with social anxiety disorder. The prevalence of social anxiety among the participants was also investigated.

3.2.1 Study Location.

Data for this phase of the study were collected from students in the following four locations: (i) University of Lagos, Akoka ; (ii) International School, University of Lagos, (iii) Akoka High School, Akoka and (iv) Bishop Howells Memorial High School, Bariga. Participants were chosen from these locations because of i) diversity in socioeconomic status and ethnic representation of the participants; ii) accessibility of the schools; and iii) University 100 level students were included to ensure diversity in educational level of participants.

3.2.2 Sample and Sampling Technique.

The target population for this study was adolescents who live and school within Lagos metropolis and is either in higher institution or secondary school. The convenient and stratified random sampling technique was used in sample selection. The sample for this phase of the study was different from the sample for the development and validation phase in order to avoid test sophistication that might arise as a result of frequent exposure to the same set of tests as well as to ensure the availability of the participants throughout the period of the study. A total sample of 450 participants were selected from JSS3 (41 male participants and 41 female participants), SSS1 (42 male participants and 42 female participants), SSS3 (42 male participants and 42

female participants), and the remaining 200 were 100 level undergraduate students. The university students were stratified into Faculties (Faculty of Social Sciences, Law, Education and Business Administration). It was discovered after collecting the instruments that some were not properly completed and age of some respondents is beyond the targeted age and such were discarded. Overall, 364 participants were therefore left for the study. They comprised of 244 secondary students (103 male participants and 141 female participants) and 120 undergraduates (52 male participants and 68 female participants). Their ages ranged from 12 years to 22 years with a mean of 16.85 and $SD = 2.86$.

3.2.3 Research Design.

For this phase of the study, a survey design method was used in which only one psychological scale (Social Anxiety Scale) was administered to 450 participants out of which 364 were used in analysis.

3.2.4. Instrument.

Personal Data (PDQ) and SAS which comprises of 7 subscales were used to elicit information from the participants.

- (i) **Personal Data Form:** This consists of 8 items designed to obtain demographic information such as name, gender, age, date, name of school, class/level, religion and ethnic group (Appendix 1).

- (ii) **Social Anxiety Scale (SAS):** This instrument was developed in the first phase of this study to measure social anxiety and its attributes. It consists of 35 items with 7 subscales namely: fear of public speaking (5 items), fear of eating in public (4 items) fear of public toilet use (4 items), fear of dating (3 items), fear of authority figure (3 items), fear of social inferiority (6 items), and general social anxiety (10 items). It yields scores on a 5 –point Likert scale response format ranging from 1 (not at all) to 5 (very much)

Scoring: Direct scoring was used for all the items. The score for each item ranged from 1 to 5 giving a minimum of 35 and a maximum of 175. The score of each participant on the scale is the sum of the values of the numbers shaded in each item.

3.2.5 Procedure:

Training of Research Assistants: The assessment stage was carried out with the help of two research assistants who were graduates of psychology. In spite of their knowledge of test administration, some time was still spent together to review the instrument, discuss on the formalities of test administration and ethical issues.

Administration of SAS: The different schools were visited by the researcher and dates for the exercise were given by the Principals. The researcher and her assistants visited the schools at the appointed days for the administration of the scale. In all the secondary schools visited, the Principals delegated either his vice or the school counsellor to help in introducing the researcher to the students and help in settling down the students. Participants were selected by stratification

namely JSS, SSS and first year university. Within each stratum, the participants were selected randomly and assessment was conducted in groups. After settling them down through the help of the Vice Principal or school counsellor, the researcher introduced herself and her assistants to the students. The researcher then explained the purpose of the research, its importance, the need to complete every item in the measures, the fact that there was no right or wrong answer and so should be honest in their response, the need for independent work and the confidentiality of each student's disclosure. Students who were not willing to participate were asked to indicate and there was none of such. The researcher then read the instruction on the instrument. Students were encouraged to ask questions anywhere they did not understand the expression. They were also encouraged to be as fast as possible though no time limit was given for the completion of the test according to the test manual.

The procedure for the university undergraduate participants was slightly different. In all instances, the researcher visited each faculty and introduces self to each of the faculty officers as well as the purpose of visitation. In each of the faculty, the officer introduced the researcher to the coordinators of general faculty courses that entail almost all the departments within the faculty. The researcher also introduces self and purpose of the visitation to each of the coordinators who gave the lecture time and venue. In all instances, the administration of instrument was designated for 25minutes towards the end of the class. In each of the faculty, the coordinator introduced the researcher and implored the students to cooperate and render assistance. Rapport was established with the students by introducing self and purpose of the exercise to them after which they were given the instruments to fill and submit immediately. Individual work was encouraged and the fact that there was no right or wrong answers was

emphasized. They were also encouraged to complete all items since any incomplete set will be voided resulting to waste of resources, energy and time.

3.2.6. Scoring and Data Collation

The completed test instrument was scored following the scoring instructions provided in the manual. A participant's score for each component of the SAS was obtained by adding all the shaded numbers in each component. A participant's total score on SAS was the sum scores of all the subscales of SAS.

3.2.7. Data Analysis.

Statistical Package for Social Scientist (SPSS) version 17 was used to analyze the data. The following statistical analyses were computed on participants' scores in the measures of SAS-total and its subscales:

- (a) **Means and standard deviation:** these were used as the descriptive statistics for this phase of the study.
- (b) **Independent T-Test:** this was used to find the significance between the scores of the male and female participants on the measures of SAS and its subscales in hypothesis three.
- (c) **Polynomial trend analysis:** this was used to determine the linear trend in the progression of social anxiety among different age group in hypothesis four.
- (d) **One way ANOVA:** this was used to find the significant difference in the scores of the four educational groups in the characteristics of social anxiety. The independent variables are the 4 educational groups while the dependent variables are their scores in SAS (7

subscales). Scheffé-Test for the post-hoc comparison was used to find the pair of groups with significant difference in hypothesis four.

In addition, the participants were categorized into five age groups viz: group 1: age 12-13 (n=64); group 2: age 14-15 (n=56); group 3: age 16-17 (n= 77); group 4: age 18-19 (n=85); and group5: age 20-21 (n=72). Participants aged 22 years were left out of the grouping in order to give room for same interval within the groups.

Phase 3

Management of social anxiety.

The goal of this phase is to manage some of the participants who obtained high score on SAS measure using Cognitive-Behavioural Therapy (CBT) with focus on Social Skills Training Technique. The phase involved two management conditions: Experimental and Control.

3.3.1 Location and Setting

This phase of the study was carried out at International School, University of Lagos. This was because there were enough participants with high scores in SAS from the school. With the permission of the principal of the school, the Junior Secondary School Library was used. The library was free of noise, has more than enough chairs, is comfortable with cross ventilation and fans, and is easily accessible to all participants. The group met thrice a week-Monday, Wednesday and Friday for 45 minutes per session. The chairs for use were arranged in circle to allow for eye contact among the members and the researcher. The researcher and her assistance sat with the group members. After warm welcome, each group member was encouraged to participate.

3.3.2 Participants

Participants for this phase of the study were 40 adolescents selected from those with high score's on SAS (that is, participants whose scores on SAS were one standard deviation higher than the mean score) among the 364 participants used in phase two of this study.

3.3.3 Sampling and Sampling Techniques.

Participants for this stage were selected based on their high scores in SAS. The scores were ranked in descending order of magnitude and the first 40 participants with highest scores on SAS were selected. The 40 participants were divided into two groups using the odd-even number assignment procedure. The first group of 20 participants were designated the management or experimental group while the other 20 participants were labeled the control group. Three out of the 20 participants that constituted the first group did not complete the sessions as a result of make-up examinations leaving the total number of 17 for the management (experimental) group. The control group was therefore reduced to 17 also to make for equal number of participants in each group. Each group was attended to separately. Cognitive-Behavioural Group Therapy using Social Skills Training (SST) technique was administered to the management group while no treatment was given to the control group.

3.3.4 Research Design.

Experimental design specifically posttest two group design which allows the researcher to determine the effects of CBT in the management of social anxiety using two groups (experimental and control) was be used for this phase of the study.

3.3.5 Instrument

SAS was used to re-assess the members of both management and control groups.

3.3.6. Treatment Package

Cognitive-Behavioural Therapy (CBT) was used for the management of the selected participants with high scores in SAS. The specific technique used was Social Skills Training. Social Skills training (SST) is a form of Cognitive-Behavioural Therapy used by teachers, therapists, and trainers to help persons who have difficulties in their interpersonal relationship and relating to others in social situations (Carter, 1998).

Goals: A major goal of social Skills training is teaching persons who may or may not have emotional problems about the verbal as well as nonverbal behaviours involved in social interactions. There are many people who have never been taught such interpersonal Skills as making "small talk" in social settings, or the importance of good eye contact during a conversation. In addition, many people have not learned to "read" the many subtle cues contained in social interactions, such as how to tell when someone wants to change the topic of conversation or shift to another activity. Social Skills training helps clients to learn to interpret these and other social signals, so that they can determine how to act appropriately in the company of other people and in a variety of different situations. SST proceeds on the assumption that when people improve their social skills or change selected behaviours, this will raise their self-esteem and increase the likelihood that others will respond favorably to them. Trainees learn to change their social behaviour patterns by practicing selected behaviours in individual or group

therapy sessions. Another goal of Social Skills Training is improving a client's ability to function in everyday social situations. Social Skills Training can help clients to work on specific issues- for example, improving one's public speaking-that interfere with their jobs or daily lives.

A person who lacks certain social skills may have great difficulty building a network of supportive friends and acquaintances as he or she grows older, and may become socially isolated. Moreover, one of the consequences of loneliness is an increased risk of developing emotional problems or mental disorders. Social Skills Training has been shown to be effective in treating clients with a broad range of emotional problems and diagnoses. Some of the disorders treated by social skills trainers include social anxiety; shyness; adjustment disorders; marital and family conflicts; anxiety disorders; attention-deficit/hyperactivity disorder; alcohol dependence; depression; bipolar disorder; schizophrenia; developmental disabilities; avoidant personality disorder; paranoid personality disorder; obsessive-compulsive disorder; and schizotypal personality disorder.

Management (Experimental) Group: This was a selected group of participants exposed to management or treatment conditions. The treatment conditions involves identifying behaviours to target, educating participants about appropriate social behaviour, encouraging clients to practice the new social behaviours and finally providing feedback to the clients about the use of these strategies. Social Skills Training combined with psycho-education, role playing, and progressive muscle relaxation training. They were used to educate the participants on social anxiety, give them the opportunity to observe role models, and equip them with the appropriate psychological and physiological management. The social skills training involve: (a) Non-verbal communication (such as eye contact), (b) Speech patterns (such as small talks), (c) Conversation

skills, (d) Assertiveness skills, (e) Dating skills, and (f) Presentation skills. These skills were chosen because the management sessions were for treating fear of public speaking, fear of dating, fear of eating in public, and fear of social inferiority. There were 15 sessions for the management and below is the session by session management outline.

Session 1. Introduction to management sessions: The goals of this session were to introduce the participants to the management programme and to also establish rules that will govern the programme. The activities included:

- i. Self-Introduction- all the participants were taken to the conference room where they were asked to sit on the already arranged single chairs in the library. The researcher introduced herself and asked the research assistants to do same, which she did. The participants were then asked to stand up one after the other to introduce them-selves and say one or two things about themselves. It was observed that some of them could not do that in the presence of familiar people. Some played with fingers while others were looking down all through.
- ii. The Purpose and goals of the meeting: was explained to them.
- iii. Importance of attendance, participation, expectation, motivation, completion of homework and cooperation on their part for a successful treatment was outlined by the researcher.
- iv. Agreement on convenient time and duration of meeting by all the participants was established.
- v. Assurance of confidentiality of all participants' personal disclosures during management was given.

Session 2: Review of participants' assessment scores (SAS's score) and Rapport Building:

The goal of this session is to review group members' assessment data, education on the nature of social anxiety, gathering information and rapport building. The activities of the session included:

- i. Warm welcome of all the participants by the researcher.
- ii. Review of assessment instrument's scores and implication of their high scores on the measures of social anxiety suggesting that they all have high levels of social anxiety.
- iii. The researcher gathered information from the participants on their perceived causes and symptoms of social anxiety. The information gathered on causes of social anxiety includes: "fear of what I will say and how I will say it"; "fear of what people will say and think about me"; "fear of contacting germs"; "fear of beng embarrassed"; "fear of soiling cloth"; "fear of doing something stupid"; "the way I was brought up"; "fear of meeting people" etc. Symptoms included "heart beating faster"; "sweating in the palms"; "shivering or trembling"; "avoiding eye contact"; "thinking about what will go wrong ahead of time"; "feeling tense"; "panicking"; "speaking quietly"; "getting words mixed up"; "avoidance" etc
- iv. Review of individual member's experiences on situations that elicit social anxiety. They were also asked to speak briefly about their fears in social interaction. They spoke of being asked to speak in public; when asked a question in class; eating in public; going to parties; when in new place; talking with opposite sex; talking to authority figure; talking to a stranger; using public toilet; initiating conversation; changing topic during discussion etc.

- v. Group members were asked to rate themselves on social anxiety and they all acknowledge that they were all socially anxious.
- vi. Self-help hand out on Social Skills was given as reading homework assignment.

Session 3: Psycho-education. The goal of this session was to educate the participants on the nature, symptoms, dimensions, consequences, treatment procedures its effectiveness on social anxiety based on past literature review. The activities include:

- i. Warm welcome and review of homework.
- ii. Researcher further explained briefly the nature, symptom manifestations and consequences of social anxiety and various ways in which it could be managed.
- iii. Cognitive Behavioural Therapy using Social Skills Training techniques was emphasized as the method of choice for the exercise.
- iv. The way in which it can ameliorate or reduce social anxiety was explained by the researcher.
- v. Presentation of hints about information processing theory including assimilation and accommodation and the role it plays in the development and maintenance of social anxiety.
- vi. Researcher explained that information processing theory has to do with how information is encoded, organized, stored in and retrieved from memory (Hollon & Garber, 1998).
- vii. Introduction to Progressive muscle relaxation exercise adapted from Omoluabi (1987) and principle of reciprocal inhibition. This exercise is to make the participants stress free, relax, pay more attention to the instructions of the researcher and participate

- actively. Reciprocal inhibition principle is based on the assumption that anxiety is as a result of the activation of the sympathetic nervous system, while relaxation is brought about by the activation of the parasympathetic nervous system and both of them cannot be activated at the same time.
- viii. Introduction of connection between thoughts and feelings: participants were informed that what people think affects their feeling and vice versa. They were made to understand that accurate thoughts lead to appropriate feelings while inaccurate ones result in inappropriate feelings and that knowledge of the connection between thoughts and feelings will help in changing inaccurate ones.
 - ix. Introduction of A-B-C Sheets: This sheet was introduced in order to help participants sort out their thoughts and feelings (Appendix 4). Column A is for events that elicit social anxiety; Column B for thoughts; Column C for feelings.
 - x. Homework: participants were asked to practice progressive muscle relaxation and to do at least two A-B-C sheets at home.

Session 4: Training in nonverbal communication: The goal of this session is to introduce the participants to non-verbal communication cues and to make them understand the basic rudiments of this communication. The activities included:

- i. Warm welcome and few minutes practice of progressive muscle relaxation.
- ii. Training and practice on making eye contact; improving frequency of eye contact; leaning forward when sitting with others; standing closer to others; smile more or less frequently as it relates to participants; and sitting up straight.

- iii. In pairs, participants practiced the non verbal communication cues as listed in ii above.
- iv. Feedback from group members was obtained.
- v. Homework- progressive relaxation and non-verbal cues.

Session 5 Use of Role Model: The goal of this session is to introduce participants to in-session exposures that involve role-plays of progressive relaxation and non-verbal communication cues in anxiety-provoking social situations. They were also taught how to challenge the irrational beliefs that reinforce their anxiety. The activities of the session included:

- i. Warm welcome and review of progressive muscle relaxation as well as non-verbal communication cues.
- ii. Researcher and co-therapists served as role-play partners
- iii. The in-session exposure situations were individualized and involved practicing progressive relaxation, non verbal cues and starting conversation with an unfamiliar person in anxiety-provoking social situations.
- iv. Participants were instructed to concentrate on both nonverbal and verbal aspects of the role models as they demonstrate eye contact and engage in communication.
- v. Each participant was asked to give the group one appropriate and inappropriate behaviour he or she observed. They also provide alternative behaviours to the inappropriate behaviours
- vi. Practical exercise on the observed role models by two pairs of participants.
- vii. Feedback from members.

- viii. Introduction of Challenging Questions sheet (Appendix 5): this was adapted from Beck & Emery (1985). It consists of 12 questions designed to help the participants to start challenging their inaccurate thoughts on anxiety-provoking social situations.
- ix. Homework: challenging inaccurate thought using Challenging Questions Sheet and doing things differently

Session 6. Conversation Skills: The goal of this session is to introduce participants to conversation skills cues. The session involved the following activities:

- i. Review of homework with more emphasis on clarifying and correcting participant's challenging inaccurate thoughts and feelings and in-session role play was also reviewed.
- ii. In-session imaginary exposure moving from lower to higher level of feared social situation.
- iii. Role plays of progressive relaxation exercise, non-verbal communication cues by participants using varying anxiety-provoking social situations where the skills are required.
- iv. Introduction of participants to small talk and how to change topic during conversation.
- v. Teaching on how to end conversation gracefully, and apologise less frequently, for those who tend to do so constantly.
- vi. Practice of small talks by participants.
- vii. Homework: practice or start small talks at home and in class and more on Challenging Questions.

Session 7: Assertiveness Training: The goal of this session is to introduce the participants to assertiveness Skills. The activities included:

- i. Warm welcome and Review of homework.
- ii. Few minutes of progressive muscle relaxation exercise and eye contact.
- iii. Researcher and co-therapists served as role-play partners
- iv. The in-session exposure situations were individualized and involved the use of “Broken Record” technique (that is repeating one’s needs without excessively justifying or explaining one’s perspective).
- v. One of the role models asking for her right through the use of broken record technique, non verbal and verbal cues without violating other role model’s rights in anxiety-provoking situations.
- vi. Participants are instructed to concentrate on both nonverbal and verbal aspects of the role models as they demonstrate eye contact and engage in communication.
- vii. Practical demonstration by the participants of the observed role models.
- viii. Feedback from participants: Each participant narrated his or her observation while others criticized it.
- ix. Homework: confronting more difficult social situations.

Session 8: Dating Skill: The goal of this session is to introduce the participants to dating skills.

- i. Warm welcome and review of homework.

- ii. Narration of dating experiences by the participants during different stages of dating (e.g. the first meeting versus knowing the person for several months), with focus on physiological and psychological features associated with the experience.
- iii. More explanation on dating experiences and the importance of progressive relaxation exercise, non-verbal (eye contact) and verbal cues (small talks), conversation skills by the researcher.
- iv. Educating Participants on strategies for meeting new people (e.g. greetings, shaking of hands, introduction of self etc).
- v. More practice on small talks and eye contact (improving conversation skills).
- vi. Homework: reading on dating Skills strategies.

Session 9: More on dating Skills: The goal of this session is to continue on dating skills strategies and to introduce the participants to Faulty Thinking Patterns (Appendix 6) which was also adapted from Beck and Emery (1985). It consists of 7 patterns of more general types of thinking errors. The activities of this session included:

- i. Review of homework.
- ii. Role plays on dating by trained co-therapists (2 males and 2 females) using the strategies listed above on varying dating situations where the skills are required.
- iii. Practical demonstration by the participants of the observed role models.
- iv. Feedback from participants: Each participant narrate his or her observation while others criticizes it.
- v. Questions and answers.
- vi. Introduction of Faulty Thinking Patterns.

- vii. Homework: confronting more difficult social situations and filling of Faulty Thinking Patterns.

Session 10: Dating Skills continued: The goal of this session is to continue on dating skills strategies. The activities included:

- i. Review of homework on confronting more difficult social situations and filling of Faulty Thinking Patterns.
- ii. Review of progressive muscle relaxation and other Skills listed above with emphasis on mastering the skills and appropriate use of them.
- iii. Educating of participants on dealing with rejection in dating situations.
- iv. Practice on dating in pairs by participants using all the skills learnt.
- v. Feedback from group members.
- vi. Introduction of “prompting”— this involved giving cues to participants to remind them of the requirements of the situation and the skills necessary to meet the demand.
- vii. Participants encouraged to date.
- viii. Homework: confronting more difficult social situations and filling of Faulty Thinking Patterns.

Session 11: Presentation Skills: The goal of this session is to introduce the participants to presentation skills. The activities included:

- i. Review of homework on dating.
- ii. Progressive muscle relaxation with emphasis on doing it alone

- iii. Narration of experiences by participants during social presentation such as leading devotion, speaking or presentation in class etc.
- iv. Identification of likely causes of the experiences such as inadequate preparation; do not want to be embarrassed; feeling shy; might say wrong things etc.
- v. Participants were educated on the basic tips of presentation in social settings. This includes:
 - a) Getting or putting the topics in perspective
 - b) Acquittance of self to the broadline of the main concept in topics
 - c) Putting points in perspective
 - d) Rehearsing the speech to self and others around such as friends or family member, and use of deep breathing and progressive muscle relaxation in the process of rehearsing.
 - e) Understanding the audience in terms of categories of people such as age mate, junior or senior ones.
 - f) Mode of presentation such as used of oral power point presentation or other materials.
 - g) Making eye contact with audience
 - h) Walking around during the presentation and gesturing with one's hands.
- vi. Homework: participants were encouraged to give public speech before imaginary audience with what they learned from session.

Session 12: More on Presentation Skills: The goal of this session is to educate participants more on presentation skills. The activities included:

- i. Review of homework.
- ii. Review of previous session's strategies.
- iii. More instruction on speech presentation: this involved:
 - (a) Resisting the temptation to read the presentation verbatim.
 - (b) Repeating the main points frequently.
 - (c) Resisting the temptation to fit in too much information.
 - (d) Preparing to answer questions.
 - (e) Being one-self and using humor where appropriate.
- iv. Questions from participants.
- v. Home work: participants were asked to choose a topic and use the strategies learned for a speech presentation at home.
- vi. Warning on termination of therapy.

Session 13: Practice of Presentation Skills: The goal of this session is to practice the presentation skills strategies learned and to introduce the participants to Challenging Belief Worksheets (Appendix 7). The activities include:

- i. Review of homework.
- ii. Review of all presentation skills strategies learned
- iii. Brief speech presentation by researcher followed by each participants
- iv. Feedback from other participants after each presentation.
- v. Introduction of Challenging Belief Worksheets (Appendix 7). This worksheet comprises of all the techniques that the participants have learned up to this point {that is A-B-C sheets; Challenging Questions (Column C); and Faulty Thinking Patterns

- (Column D)} and additional columns (E – this is to help the participants replace inaccurate thoughts with more accurate ones and F (De-catastrophizing) – this emphasizes the worst case that could ever happen to the participants.
- vi. Second notice of termination of management or therapy
 - vii. Homework- Challenging Belief Worksheet and doing things differently

Session 14: Safety and Avoidance Issues: The goal of this phase is to emphasize some safety and avoidance issues that could hinder the outcome of treatment and how to avoid them and to review the programme so far. The activities of the session included:

- i. Review of homework.
- ii. Introduction of safety and avoidance behaviour issues: safety behaviours are actions (such as speaking slowly or quickly, always agreeing, looking down so that no one can catch their eye, holding knees together to control shaking etc.) people engage in so as to reduce the sense of being at risk.
- iii. Identification of each members safety behaviours
- iv. In-session imagination of still more difficult situations
- v. Review of programme so far
- vi. Third notice of termination of management or therapy
- vii. Homework: Writing an account of what participant has gained so far in the programme

Session 15: Re-Assessment and Termination: The goal of this session is to re-assess the participants using SAS and to terminate the treatment sessions. The activities of this last session included:

- i. Sharing of experiences on gains of the exercise by participants
- ii. Re-assessment
- iii. Questions and answers time.
- iv. Recommendation of books and articles for further reading.
- v. Exchange of addresses and pleasantries.
- vi. Encouragement on future contact for help.
- vii Termination of exercise

Control Group: The members of this group were 17 participants comprising of 6 males and 11 females from Akoka High School and 100 level undergraduate students of University of Lagos. They are aged between 14 to 18 years. Placebo treatment in terms of visitation and passage of time were applied to this group.

3.3.7. Post-Treatment Assessment Stage.

The main objective of this stage was to validate the efficacy of CBT that involved the use of Social Skills Training (SST) in the treatment of social anxiety. At this stage, all the participants for the management stage of the study were re-assessed using the Social Anxiety Scale (SAS). The management group members were re-assessed during the last session of the therapy exercise while the control group members were re-assessed in their different schools in-between the 13th and the last session of the treatment group.

Scoring and Data Collation.

The norms reported in the first phase of this study was used to score the participants. In SAS, scores lower than the norms indicate that the participant did not manifest high level of fear.

Data Analysis.

The Statistical Package for the Social Sciences (SPSS version 17) was used. The statistical method used includes: t-test for independence samples and Analysis of Covariance (ANCOVA).

CHAPTER FOUR

RESULTS

This chapter presents results for the three phases of the study.

Descriptive Statistical Output

Table 1: Means and standard deviations of the scores of all the participants in SAS & FNE across gender in Validation Phase.

Subscales	Male participants (n=205)		Female participants (n=259)		Total (n=464)	
	Mean	SD	Mean	SD	Mean	SD
A Fear of public speaking	8.82	3.61	9.12	3.81	8.97	3.71
B Fear of Public eating	7.76	3.67	8.02	3.86	7.89	3.77
C Fear of dating	8.71	3.92	8.99	4.15	8.85	4.04
D Fear of public toilet use	10.62	3.76	11.69	3.97	11.16	3.89
E Fear of authority figure	9.73	3.62	10.05	3.65	9.89	3.64
F Fear of social inferiority	8.42	3.61	8.43	3.74	8.43	3.68
G General Social anxiety	21.20	8.31	21.98	8.63	21.59	8.47
Total Social Anxiety Scale	76.68	21.50	77.42	21.58	77.05	21.54
Fear of Negative Evaluation	14.63	5.13	15.17	5.38	14.90	5.26

The results presented in Table 1 show the means and standard deviations of all the participants scores in the measure of social anxiety (SAS, its 7 subscales and FNE) in the standardization and validation phase of the study based on gender. The result shows that female participants have slightly higher mean scores and standard deviation than male participants in all the measures (that is SAS, its subscales and FNE) than male participants.

Table 2: Means and standard deviations of the scores of all the participants in SAS across gender in Assessment Phase.

Gender	Male Participants (N = 155)		Female participants (N = 209)		Total	
Measures	Mean	SD	Mean	SD	Mean	SD
Fear of Public Speaking	10.90	4.25	11.87	4.66	22.77	8.91
Fear of Public Eating	8.05	3.44	8.55	4.06	16.6	7.50
Fear of Dating	7.08	3.44	7.83	3.73	14.91	7.17
Fear of Public Toilet Use	11.03	3.87	12.41	4.09	23.44	7.96
Fear of Authority Figure	7.41	3.17	7.52	3.46	14.93	6.63
Fear of Social Inferiority	12.05	4.77	12.32	5.24	24.37	10.01
General Social Anxiety	22.03	8.60	23.50	9.33	45.53	17.93

The results presented in Table 2 show the means and standard deviations of all the participant scores in the measure of social anxiety (SAS, & its 7 subscales) in the assessment phase of the study based on gender. The results shows that female participants have slightly higher mean scores than male participants in all the measure of SAS's subscales.

Table 3: Means and standard deviations of the scores of all the participants in SAS across gender in Management Phase.

	Treatment Group		Control Group		Total	
	(N=17)		(N =17)		(N = 34)	
Measures	Mean	SD	Mean	SD	Mean	SD
Fear of public Speaking	7.76	1.82	15.82	1.91	23.58	3.73
Fear of public Eating	7.23	2.43	12.44	1.51	19.67	3.94
Fear of Dating	7.47	2.53	12.94	1.51	20.41	4.04
Fear of public Toilet use	14.88	3.31	14.85	2.82	29.73	6.13
Fear of Authority Figure	9.06	2.90	12.71	1.57	21.77	4.47
Fear of Social Inferiority	10.59	4.50	16.77	2.88	27.36	7.38
General Social Fear	26.53	8.22	36.84	2.72	63.37	10.94
SAS	76.52	11.75	120.94	6.84	197.46	18.59

The results presented in Table shows the means and standard deviations of all the participant scores in the measure of social anxiety (SAS, & its 7 subscales) in the management phase of the study based on group. The result shows that the control group have the highest mean scores than the treatment group.

4.1. Development, Standardization and Validation of SAS

Psychometric Properties: To establish the norms for the Social Anxiety Scale and the Fear of Negative Evaluation for Nigerian samples, the means and standard deviations of the scores of all the participants across gender were computed. The results are presented in Table 4.

Norms: The norms reported for this instrument are the mean scores of the participants in SAS and its subscales. The mean scores formed the basis for interpreting the scores of the participants. Scores higher than the norms indicate that the participant manifests high level of social anxiety, while scores equal to or lower than the norms indicate that the client is comfortable in social situations.

Table 4: Means and Standard Deviations of Participant's scores in SAS across Gender.

Subscales	Male participants (n=205)		Female participants (n=259)		Total (n=464)	
	Mean	SD	Mean	SD	Mean	SD
A Fear of public speaking	8.82	3.61	9.12	3.81	8.97	3.71
B Fear of Public eating	7.76	3.67	8.02	3.86	7.89	3.77
C Fear of dating	8.71	3.92	8.99	4.15	8.85	4.04
D Fear of public toilet use	10.62	3.76	11.69	3.97	11.16	3.89
E Fear of authority figure	9.73	3.62	10.05	3.65	9.89	3.64
F Fear of social inferiority	8.42	3.61	8.43	3.74	8.43	3.68
G General Social anxiety	21.20	8.31	21.98	8.63	21.59	8.47
Total Social Anxiety Scale	76.68	21.50	77.42	21.58	77.05	21.54
Fear of Negative Evaluation	14.63	5.13	15.17	5.38	14.90	5.26

The results presented in Table 4 show that female participants have slightly higher mean scores and standard deviation than male participants in all the measures (that is SAS, its subscales and FNE).

Establishment of Objectives

Objective One: The newly developed Social Anxiety Scale (SAS) will have high coefficients of Cronbach Alpha Internal Consistency and Split-half reliability.

In order to establish the first objective, Cronbach Alpha internal consistency reliability coefficient and Split-half reliability coefficient were computed on the participants' scores in the measure of SAS and its subscales. The results are presented in Table 5.

Table 5: Reliability coefficients of SAS

Measure	Cronbach alpha (N=464)	Split-half (N=464)
A Fear of public speaking	0.74	0.69
B Fear of Public eating	0.69	0.68
C Fear of dating	0.71	0.64
D Fear of public toilet use	0.51	0.50
E Fear of authority figure	0.60	0.44
F Fear of social inferiority	0.74	0.73
G General Social anxiety	0.83	0.83
Total Social Anxiety Scale	0.92	0.87

Significant at $P < .05$, $df = 462$, Critical $r = 0.16$

The result presented in Table 5 shows that SAS and its subscales have a good internal consistency cronbach alpha coefficients and Split-half reliability coefficient.

Objective Two : There will be positive and significant correlation between the scores of the participants in the newly developed Social Anxiety Scale (SAS) and Fear of Negative Evaluation (FNE).

The concurrent validity of SAS with FNE (one of the commonly administered measures of social anxiety) was established by using Pearson Product Moment to inter-correlate the scores of the participants in SAS subscales, SAS (total) and FNE. The results are presented in Table 6.

Table 6: Correlations Matrix for participants' scores in FNE and SAS.

MEASURES	FEAR OF NEGATIVE EVALUTION	FEAR OF SPEAKING	FEAR OF EATING	FEAR OF DATING	FEAR OF PUBLIC TOILET USE	FEAR OF AUTHORITY FIGURE	FEAR OF SOCIAL INFERIORITY	GENERAL SOCIAL FEARS	SOCIAL ANXIETY SCALE	t
FEAR OF NEGATIVE EVALUTION	1									9.59
FEAR OF SPEAKING	.23**	1								1.96
FEAR OF EATING	.28**	.30**	1							1.96
FEAR OF DATING	.29**	.36**	.50**	1						0.42
FEAR OF PUBLIC TOILET USE	.14	.17**	.35**	.32**	1					1.12
FEAR OF AUTHORITY FIGURE	.33**	.47**	.42**	.43**	.25**	1				1.97
FEAR OF SOCIAL INFERIORITY	.33**	.57**	.47**	.47**	.20**	.56**	1			1.97
GENERAL SOCIAL ANXIETY	.35**	.49**	.55**	.47**	.27**	.54**	.68**	1		1.98
SOCIAL ANXIETY SCALE	.59**	.66**	.71**	.69**	.49**	.72**	.79**	.87**	1	2.03

** Correlation is significant at $P < .01$, $df = 462$, $r = 0.16$

The results presented in Table 6 shows that SAS has a positive and significant concurrent validity with FNE (0.59**). Six out of the seven subscales of SAS were also found to be positively and significantly correlated with FNE (that is, Fear of speaking in public 0.23; Fear of eating in public 0.28; Fear of dating 0.29; Fear of authority figure 0.33; Fear of social inferiority .33; General social anxiety .35) at $P < .01$ level of significance. Thus, objective 2 which states that there will be positive and significant correlation coefficients between the scores of the participants in the newly developed Social Anxiety Scale (SAS) and Fear of Negative Evaluation (FNE) was accepted.

In addition, Factor Analysis with Principal component and a direct varimax rotation was used to determine the factorial structure of SAS based on the scores of 464 participants. Information about the factorability of the data, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Barlett's tests of sphericity was 0.91 and chi square of 4475.03, $df = 595$, at $P < .01$ respectively. As a measure of factorability, KMO values of 0.60 and above are acceptable (Brace, Kemp & Snelgar, 2006), and the Barlett's chi square value is significant making the data factorable. The subsequent factor analysis produced 7 component factors that conformed to Kaiser's criterion. The result is presented in table 7 below:

Table 7: Initial Eigenvalue of the Extracted Factors

Subscales	Eigenvalues	% of Variance	Cumulative %
1	9.72	27.78	27.78
2	1.95	5.58	33.36
3	1.81	5.18	38.53
4	1.40	4.01	42.54
5	1.25	3.56	46.10
6	1.17	3.34	49.43
7	1.09	3.10	52.54

The results in Table 7 show that 7 factors with eigenvalues greater than 1 were extracted and they accounted for a total of 52.54% cumulative variance. The first factor has an eigenvalue of 9.72 and a variance of 27.78% while the values for the last factor are 1.09 and 3.10% respectively.

Table 8: Items, Communalities and their Factors Loading

ITEM NO.	COMMUNALITIES	FACTORS						
		1	2	3	4	5	6	7
1	.57		.73					
2	.68		.75					
3	.54		.63					
4	.44		.58					
5	.37				.43			
6	.61				.72			
7	.58				.68			
8	.53				.56			
9	.54	.53						
10	.58					.65		
11	.60					.71		
12	.64					.74		
13	.54							.71
14	.44							.56
15	.45							.38
16	.54							.67
17	.51						.58	
18	.65						.68	
19	.43	.58						
20	.38	.49						
21	.51	.45						
22	.52	.40						
23	.51		.41					
24	.60	.70						
25	.42						.42	
26	.55	.45						
27	.42			.40				
28	.45	.37						
29	.58	.53						
30	.49	.56						
31	.48			.45				
32	.49			.59				
33	.58			.63				
34	.65			.74				
35	.54			.58				

The results in table 8 show that 10 items loaded significantly in Factor 1; 5 items in Factor 2; 6 items in Factor 3; 4 items each in factors 4 & 7; 3 items each in Factors 5 & 6.

In order to name the subscales extracted correctly, the items were arranged in ascending order of loading size in each factor (Table 9).

Table 9: Names of Extracted Factors and items that load on them

ITEM NO	ITEM NAME	FACTOR LOADING	FACTOR NAME
28	I have a feeling of isolation in public places.	.37	General social anxiety
22	I forget facts I really know while giving a speech in public.	.40	
21	I am nervous and tense while participating in group discussions	.45	
26	I feel ashamed engaging in public activities.	.45	
20	I often feel uncomfortable when at parties.	.49	
9	I do not have enough confidence to interact actively with the opposite sex.	.53	
29	I feel nervous in a crowd	.53	
30	I do not socialize because of fear of rejection	.56	
24	I feel shy expressing my feelings openly	.58	
19	I am generally a shy person	.70	
23	Communicating at meetings makes me uncomfortable	.41	Fear of public speaking
4	I always avoid speaking in public whenever I can	.58	
3	I perspire and tremble just before getting up to speak	.63	
1	I stammer whenever I am speaking before an audience	.73	
2	My thoughts become confused when I speak in public	.75	

27	I am ignorant of many public activities	.40	Fear of social inferiority.
31	I have a feeling that I am not up to the social status of the people I interact with socially	.45	
35	I fear being corrected in the public	.58	
32	I feel inferior when I am with strangers	.59	
33	I depend on others to make decisions for me during social activities	.63	
34	I sweat and fret in social gatherings	.74	
5	I am in constant fear of soiling my dress when eating in public.	.43	Fear of eating in public.
8	I am always tensed up while eating in a public place.	.56	
7	I do not look up when eating in a place where there are other people.	.68	
6	I scarcely go to a restaurant because of fear of others there.	.72	
10	I act clumsily during dating	.65	Fear of dating
11	During dating, I am usually too conscious of myself and the environment	.71	
12	I feel agitated during dating	.74	
25	I cannot concentrate when I am working in the midst of other people	.42	Fear of authority figure
17	I feel nervous whenever I speak to someone in a position of authority	.58	
18	I feel nervous during job interviews	.68	
15	I carry my own disinfectant with me in case I am outside my home and I need to use a public toilet.	.50	Fear of public toilet use
14	I am unable to urinate/excrete whenever I am surrounded by other people in toilet	.56	
16	I force myself to empty my bowels before I go out so as not to use public toilet	.67	
13	The thought of using public toilets frightens me intensely.	.71	

4.2. Assessment and Management Phases

TABLE 10: Percentage of Participants with Scores Higher than the Norms for SAS

Measures	Number of Participants (N)	Percentage (%)	t-values (t)
Fear of Public Speaking (N=60)	60	16.48	21.58
Fear of Public Eating (N=45)	45	12.36	18.33
Fear of Dating (N=57)	57	15.65	20.43
Fear of Public Toilet Use (N=34)	34	9.34	16.44
Fear of Authority Figure (65)	65	17.85	21.43
Fear of Social Inferiority (57)	57	15.65	20.43
General Social Anxiety (N=57)	57	15.65	20.42
Sas	100	24.47	25.76

The result in Table 10 shows the percentage of prevalence of social anxiety and its subscales among the participants. In all, about 27 % (100) of the 364 participants were found to have social anxiety. Such high number of symptoms that may be classified as suffering. This would imply that the prevalence rate of social anxiety in the study population is about 27.5%.

Test of Hypotheses

Hypothesis One

- Female participants will have significantly higher scores on measures of SAS than male participants.

Statistical Parkage for Social Scientists (SPSS) version 17 was used to find the mean and standard deviation of the scores of both male participants and female participants. Also computed was independent t-test to determine if the difference in the mean scores is significant. The results are presented in Table 11.

Table 11: Means and Standard Deviations for Male & Female Participants' Scores in SAS and their t-statistics.

Gender	Male Participants		Female participants		
	(N = 155)		(N = 209)		
Measures	Mean	Standard Deviation (SD)	Mean	Standard Deviation (SD)	t
Fear of Public Speaking	10.90	4.25	11.87	4.66	2.07*
Fear of Public Eating	8.05	3.44	8.55	4.06	1.24
Fear of Dating	7.08	3.44	7.83	3.73	1.98*
Fear of Public Toilet Use	11.03	3.87	12.41	4.09	3.29*
Fear of Authority Figure	7.41	3.17	7.52	3.46	2.34*
Fear of Social Inferiority	12.05	4.77	12.32	5.24	2.51*
General Social Anxiety	22.03	8.60	23.50	9.33	1.97*

* Significant at $P < .05$, $df = 362$, Critical $t = 1.96$

The results presented in Table 11 show that female participants have slightly higher mean scores than male participants in all the measure of SAS's subscales. Significant mean differences were also found in the measures of Fear of Public Speaking; Fear of Dating; Fear of Public Toilet Use; Fear of Authority Figure; Fear of Social Inferiority and General Social Anxiety. Thus, Hypothesis 1 is supported.

Hypothesis Two

- There will be significant trend in the progression of social anxiety from the younger to the older age categories.

In order to determine the trend in the progression of social anxiety, the participants were categorized into five age groups. To test the hypothesis, mean scores and standard deviation were computed for each of the five age groups in each of the seven subscales of SAS and total SAS. The result is presented in Table 12.

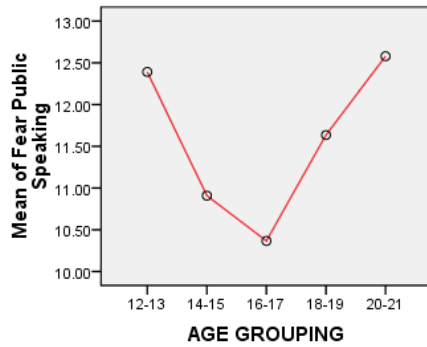
Table 12: Means and Standard Deviations for Participants' scores in SAS across Age Groups.

Measures	12-13yrs (n=64)		14-15 yrs (n=56)		16-17yrs (n=77)		18-19yrs (n=85)		20-21yrs (n=72)		Total (n=354)		t
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Fear Public Speaking	12.39	4.74	10.90	4.55	10.29	3.67	11.63	4.56	12.60	4.44	11.46	4.51	1.98
Fear of Public Eating	10.22	4.19	8.09	3.63	7.06	2.89	8.03	3.96	9.05	3.66	8.34	3.81	1.96
Fear of Dating	9.12	4.48	6.98	3.73	6.66	2.96	7.92	3.60	8.40	3.33	8.39	3.81	2.11
Fear of Public Toilet Use	13.40	3.88	11.43	3.94	10.83	3.83	11.91	4.14	11.77	4.16	10.89	3.92	1.99
Fear of Authority Figure	8.15	3.83	7.26	2.84	6.56	2.98	7.52	3.09	7.98	3.82	7.47	3.31	0.38
Fear of Social Inferiorty	14.48	5.67	11.92	4.72	10.70	4.05	10.98	4.81	14.00	4.93	12.10	5.04	2.03
General Social Anxiety	26.02	9.83	21.58	7.89	19.87	7.88	21.61	8.44	27.00	9.48	21.12	8.37	1.99
Social Anxiety (total)	93.80	27.64	78.18	22.02	71.90	21.68	78.80	24.89	90.69	25.75	79.50	23.56	2.01

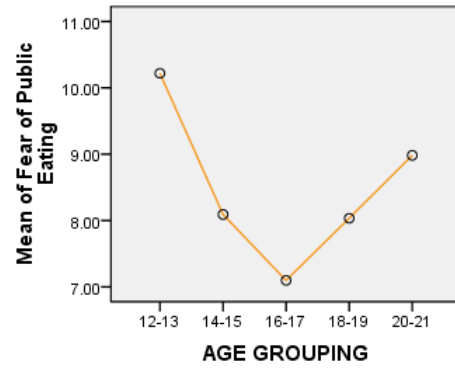
The results presented in Table 12 show that the first age group (12-13years) had the highest mean scores in all the measure of SAS and its subscales; followed by age group 20-21 years while age group 16-17 years had the least mean scores in the measure. A graphical illustration of the participants mean scores on each of the component of SAS is presented below:

Fig.1: Graphical Illustration of Mean Scores of all the Participants in the Measure of SAS and its Subscales based on Age Categories

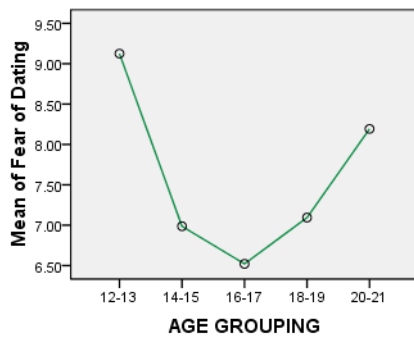
SAS a: Fear of Public Speaking



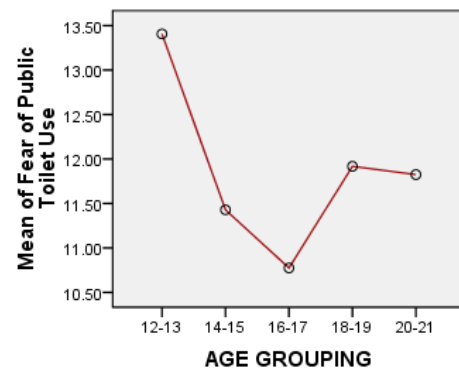
SAS b: Fear of Public Toilet Use



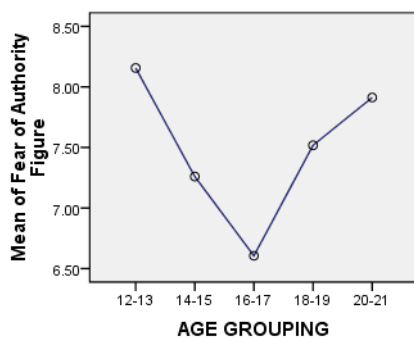
SAS c: Fear of Dating



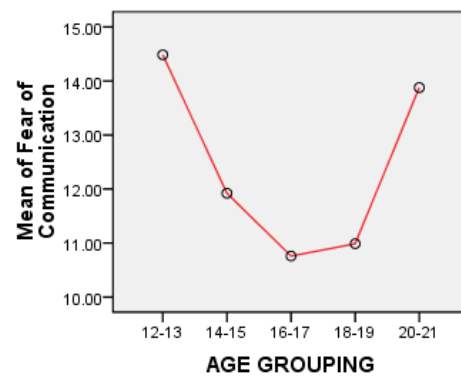
SAS d: Fear of Public Toilet Use



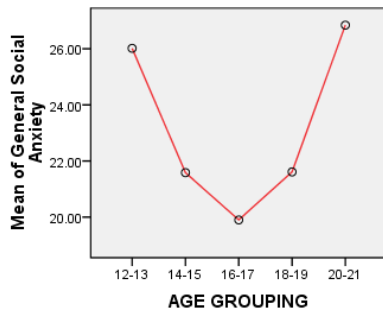
SAS e: Fear of Authority Figure



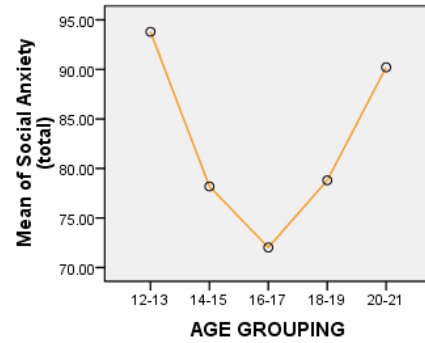
SAS f: Fear of Social Inferiority



SAS_g: Fear of General Social Anxiety



SAS_{total}



In order to determine the trend in the progression of social anxiety among the five age group categories, Linear, Quadratic and Cubic Polynomial one-way ANOVA was computed on the age-group scores in the measure of SAS and its component based on the basic equation underlying these formula. The result is presented in Table 113.

Table 13: Summary of Polynomial ANOVA for Participants' Scores across Age Groups.

Measures	Linear (F-value)	Polynomial Quadratic (F-value)	Polynomial Cubic (F-value)
Fear of Public Speaking R^2	2.72*	.11	.09
Fear of Public Eating R^2	6.56*	.20	1.21
Fear of Dating R^2	5.08*	.80	.30
Fear of Public Toilet Use R^2	3.09*	1.32	1.40
Fear of Authority Figure R^2	2.01	.24	.53
Fear of Social Inferiority R^2	7.02*	1.62	.99
General Social Anxiety R^2	6.60*	.79	2.09
SAS (Total) R^2	7.61*	1.20	1.69

*Significant at $P < .05$, $df = 4/349$, Critical $F = 2.37$

Table 10 reveals that there is a significant linear trend in the progression of social anxiety among the five age groups in the measure of SAS and six of its subscales. This means that hypothesis 2 is therefore supported and accepted

Hypothesis Three

- Participants with low educational attainment will report significantly higher levels of social anxiety than those with high educational attainment.

In order to test this hypothesis, mean and standard deviations were computed on the scores of all the participants in each educational level. The results are presented in Table 14 below.

Table 14: Means and Standard Deviations of Participants' Scores in SAS according to Educational Status.

Measures	J.S.S.3 (n=44)		S.S.S1 (n=80)		S.S.S.3 (n=120)		100 LEVEL (n=120)		TOTAL (N=364)	
	<i>X</i>	SD	<i>X</i>	SD	<i>X</i>	SD	<i>X</i>	SD	<i>X</i>	SD
Fear of Public Speaking	11.34	4.16	12.48	4.63	10.87	4.75	11.39	4.24	11.46	4.51
Fear of Public Eating	7.74	3.90	9.93	4.08	7.28	3.14	8.85	3.76	8.34	3.81
Fear of Dating	7.52	3.55	9.01	4.33	7.05	3.23	6.77	3.07	7.51	3.62
Fear of Public Toilet Use	11.36	3.98	13.00	4.11	11.34	3.81	11.76	4.24	11.82	4.05
Fear of Authority Figure	6.89	2.91	7.99	3.77	7.20	3.11	7.93	3.49	7.47	3.33
Fear of Social Inferiority	11.84	4.83	14.30	5.65	10.53	4.09	12.89	5.02	12.20	5.04
General Social Anxiety	21.40	8.66	25.83	9.78	20.80	7.88	24.32	9.33	22.87	9.04

The results in Table 14 show that SSS 1 participants had the highest mean scores and Standard Deviation in the measure of SAS's subscales, followed by 100 level university

students (except in measure of “Fear of dating” where they have the lowest mean score and standard deviation) and then J.S.S.3 participants. SSS 3 participants had the least mean scores and standard deviation in all the measure of SAS component except in Fear of dating (where 100 level university students have the lowest mean score). Also, One-way Analysis of Variance (ANOVA) was computed to find out whether the observed differences in mean scores of the participants across educational level are statistically significant. The result is presented in Table 15.

Table 15: ANOVA Summary for the Educational Levels in the 7 subscales of Social Anxiety Measures.

MEASURES	Between Groups		Within Groups		Total SS	F
	SS	MS	SS	MS		
Fear of public speaking	182.05	60.68	7258.99	20.16	7441.04	3.01*
Fear of public eating	395.81	131.94	4879.63	13.56	5275.44	9.73*
Fear of dating	272.73	90.91	4504.21	12.51	4776.93	7.27*
Fear of public toilet use	161.43	53.81	5807.97	16.13	5969.39	3.35*
Fear of authority figure	90.99	30.33	3970.34	11.03	4061.33	2.75*
Fear of social inferiority	751.25	250.42	8474.30	23.54	9225.55	10.64*
General social anxiety	1589.92	529.97	28109.01	78.08	29698.93	6.79*

*Significant at $P < .05$, $df = 3/360$, Critical $F = 2.62$

The results in Table 15 show that significant differences occurred among the groups in the measure of SAS and its subscales. To determine the pairs of educational level between which the statistically significant mean differences occurred, Scheffé-post hoc analysis was computed. The results are presented in Table 16.

Table 16: Summary of the Scheffe test for the Four Significant Measures across Educational Levels

Measures	J.S.S.3&SSS1	JSS3 & SSS3	JSS3 & 100 level	SSS1 & SSS3	SSS1 & 100 level	SSS3 & 100 level
Fear of public speaking	8.38*	7.73	0.35	7.97*	8.58*	0.22
Fear of public eating	0.02	1.72	1.70	1.60	1.58	.46
Fear of dating	1.90	5.98	6.32	6.33	3.90	4.34
Fear of public toilet use	3.97	0.19	1.16	0.23	1.20	0.03
Fear of authority figure	9.48*	2.63	3.14	8.80*	8.67*	1.17
Fear of social inferiority	8.83*	4.84	5.01	8.03*	9.67*	3.88
General social anxiety	9.52*	5.46	7.23	8.07*	8.55*	4.61

*Significant at $P < .05$, $df = 3/360$, Critical $F = 7.86$

The results in Table 16 show that significant differences occurred among J.S.S. 3 & S.S.S1 groups; S.S.S.1 & S.S.S.3 groups and S.S.S.1 & 100 level groups in the measure of Fear of public speaking, fear of authority figure, Fear of social inferiority and general social anxiety. There was no significant difference between J.S.S.3 & S.S.S.3; J.S.S.3 & 100 levels, and S.S.S.3 & 100 level in all the measure. Thus, hypothesis 3 is rejected.

Hypothesis Four

Participants who are managed with Social Skills Training will manifest less social anxiety than those who are not managed (control group).

In order to test this hypothesis, means and standard deviations were computed on the scores of the selected 34 participants (divided into treatment and control groups of 17 each) on the

measure of social anxiety for both pre-treatment and post-treatment assessments. The results are presented in Table17.

TABLE 17: Means and Standard Deviations for Pretest and Posttest Scores in SAS for Treatment and Control Groups.

	PRE TREATMENT				POST TREATMENT			
	TREATMENT		CONTROL		TREATMENT		CONTROL	
	(N=17)		(N =17)		(N=17)		(N =17)	
Measures	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Fear of public Speaking	16.77	1.95	16.76	2.19	7.76	1.82	15.82	1.91
Fear of public Eating	13.94	1.03	13.18	1.42	7.23	2.43	12.44	1.51
Fear of Dating	14.35	.78	12.64	2.45	7.47	2.53	12.94	1.51
Fear of public Toilet use	14.82	3.57	15.77	2.75	14.88	3.31	14.85	2.82
Fear of Authority Figure	14.00	1.11	13.35	1.27	9.06	2.90	12.71	1.57
Fear of Social Inferiority	19.82	3.77	18.58	4.01	10.59	4.50	16.77	2.88
General Social Fear	37.82	4.74	37.64	2.94	26.53	8.22	36.84	2.72
SAS	131.53	7.58	127.94	8.64	76.52	11.75	120.94	6.84

The results in Table 17 show that in the pre-treatment phase, the treatment group had slightly higher mean pretest scores than control group in SAS total and six of its subscales (Fear of public speaking, Fear of public eating, Fear of Dating, Fear of Authority Figure, Fear of Social inferiority, General Fear, and SAS). In addition, the treatment group posttest mean scores are lower than the pretest mean scores in all the measures except in measure of fear of public toilet use. In order to find out if the observed mean differences above are statistically significant, Analysis of Covariance (ANCOVA) was used to compare the four

set of scores for the two groups with the post-treatment scores serving as the co-variate set of scores. The results are presented in Table 18.

Table 18: ANCOVA Summary of Participants' Scores in SAS.

	Between Groups		Within Groups		Total		η^2
Measures	SSq	MS	SSq	MS	SSq	F	
Fear of Speaking	552.03	552.03	93.17	3.01	5393.00	183.67*	.86
Fear of public Eating	78.95	78.95	309.58	19.18	3869.00	4.12	.13
Fear of Dating	240.07	240.07	126.33	4.08	3610.00	58.91*	.66
Fear of public Toilet use	35.31	35.31	274.24	8.85	5418.00	3.99	.18
Fear of Authority Figure	123.32	123.32	164.15	5.30	4314.00	23.29*	.43
Fear of Social Inferiority	629.54	629.54	204.76	6.61	6172.00	95.31*	.76
General Social Fear	2460.31	2460.31	513.86	16.58	28376.00	148.43*	.83
SAS Total	23396.34	23396.34	2463.02	82.10	323739.00	284.97*	.91

*Significant at $P < .05$, $df(1/31)$, Critical $F=4.17$

The results in Table 18 show that there is a significant effect of treatment in the measure of SAS and five of its subscales after adjusting for pretest scores.

In order to find out the actual impact of CBT (Social Skills Training) had on the participants' manifestation of social anxiety, the gain scores of the treatment and the control groups on the measures of social anxiety and its sub-scales were obtained by subtracting pre-treatment scores from the post-treatment scores. The scores were adjusted to eliminate the negative values. The means and standard deviations of the adjusted gain scores were computed. To determine if the mean of the adjusted gain scores between the two groups are

statistically significant, t-independent statistics was computed. The results are presented in Table 19

Table 19: Means, Standard Deviation and t-test for Adjusted Gain Scores for the Treatment and Control Groups.

	Treatment Group		Control Group		
	(n=17)		(n=17)		
Measures	Mean	SD	Mean	SD	T
Fear of Public Speaking	12.77	2.20	16.77	1.95	1.97*
Fear of public Eating	11.97	1.42	11.94	1.02	1.79
Fear of Dating	10.64	2.45	14.35	.78	2.74*
Fear of public Toilet use	15.77	2.75	14.82	3.57	.86
Fear of Authority Figure	10.35	1.27	14.00	1.11	2.58*
Fear of Social Inferiority	15.59	4.01	19.82	3.77	1.99*
General Social Fear	35.64	2.93	37.82	4.74	2.13*
SAS Total	121.94	8.64	131.53	7.58	2.29*

*Significant at $P < .05$, $df = 32$, Critical $t = 1.96$

The results in Table 19 show that treatment group has lower mean scores in the measures of Fear of Public Speaking, Fear of Dating, Fear of Authority Figure, Fear of Social Inferiority, General Social Fear and SAS total. Also, the treatment group have lower standard deviation in the measure of Fear of Public Toilet Use and General Social Fear while control group had higher standard deviation in the remaining measures. However, the observed mean differences were found to be significant in the measures of Fear of Public Speaking, Fear of Dating, Fear of Authority Figure, Fear of Social Inferiority, General Social Fear and SAS total. This thereby confirms Hypothesis 4.

CHAPTER FIVE

DISCUSSION.

This study focused on the development, standardization, and validation of a scale that will measure social anxiety, identification of the demographic antecedents that trigger fear among the adolescents, the types of situational and presentational fears that are exhibited by them and verification of the efficacy of cognitive behavioural therapy in the treatment of social anxiety disorder. In order to achieve these goals, the study was carried out in three distinct phases.

1. The development, standardization and validation of Social Anxiety Scale (SAS)
2. The assessment of social anxiety among the adolescents; and
3. The management of social anxiety and verification of the efficacy of Cognitive Behavioural Therapy specifically Social Skills Training (SST).

5.1. Summary of findings

The following are the major findings of this study:

1. Social Anxiety Scale developed in this research was found to be reliable with positive and significant Split-half, and Cronbach alpha reliability coefficients.
2. Scores obtained in Social Anxiety Scale (SAS) and six of its subscales correlated positively and significantly with scores in Fear of Negative Evaluation (a comparable instrument) indicating the validity of the newly developed SAS.
3. The prevalence of social anxiety in the adolescents studied was found to be 27.47%.

4. Female participants exhibited higher levels of social anxiety than their male counterparts.
5. Social anxiety levels decreased as age increased from 12 to 17 years with an upward surge from age 17 to 21, revealing a curve-linear trend.
6. Cognitive-behaviour Therapy (using specifically Social Skills training) was found to be effective in reducing social anxiety among participating adolescents.

5.2. Development, standardization and validation of Social Anxiety Scale.

A new scale - "Social Anxiety Scale" which measures social anxiety in adolescents was developed. This scale consists 35 items with seven subscales. The subscales are: fear of speaking in public; fear of public eating; fear of dating; fear of public toilet use; fear of authority figure; fear of social inferiority; and general social fear. The Social Anxiety Scale developed was found to be reliable with positive and significant Split-half, and Cronbach alpha reliabilities. The findings are in agreement with Aiken's (2003) view that the acceptable reliability coefficient of any scale must be high and not less than .70. This confirms Hypothesis 1 which predicted high reliability coefficients for Social Anxiety Scale (SAS), implying that SAS could yield similar scores from these participants over time.

In respect of the validity coefficients of this scale, scores obtained in Social Anxiety Scale and six of its subscales correlated positively and significantly with scores in Fear of Negative Evaluation. The findings are in line with Aiken's (2003) and Brace, Kemp & Snelgar (2006) recommendation who both agreed that the acceptable range for concurrent validity should be .50 to .80. The finding also reveals that SAS and Fear of Negative Evaluation are measuring different constructs. Also, the findings on construct validity through factor analysis by means of principal subscales analysis using varimax rotation

show that the 7 factors extracted are independent of one another and invariant. This implies that the component factors extracted can be thought of as representing different factors that underlie social anxiety and are named based on the way in which the items cluster. The prediction of positive significant correlation between the scores of the participants in the newly developed SAS and FNE to establish the concurrent and construct validity was confirmed. The trend of these findings implies that SAS has good psychometric properties and is certified as a sound measure of social anxiety. The internal consistency and split-half reliability of SAS measure are strong. Importantly also is the fact that the scores on Social Anxiety Scale correlate positively and strongly with the score of Fear of Negative Evaluation (FNE) a widely used standardized inventory.

5.3. Assessment of social anxiety.

Three hypotheses were formulated and tested in this phase of the study. Apart from the hypotheses, the study also investigated the prevalence of social anxiety among the participants. This is of particular interest to this researcher because the majority of people assume that social anxiety is rare among Nigerians. For some who believe in its existence, they view it as no problem because of the fact that it is suppose to disappear with development. Some also assume that our social network will eliminate such problem.

However, the finding reveals a relatively high percentage (27.47%) of social anxiety among the participants particularly in a society where social network is still valued and practiced. This high percentage ranged from 9.34 (fear of public toilet use) to 17.85 (fear of authority figure) in the subscales. The relatively low prevalence of fear of public toilet use may be explained by the fact that there are limited public toilets around and the adolescents may be

exposed only to the ones in their schools, churches/mosques, and cinema houses (for those who visit such places). The high prevalence of fear of authority figure may be a result of socialization and cultural values. Nigerian culture places high value on respect for authority both within and outside the home setting. Children are therefore taught to keep silent where elders or authorities are. Children are to “be seen and not heard”. They may also acquire this fear through observation that may be further reinforced by later experiences. This finding is consistent with previous findings within and outside Nigeria. Bella & Omigbodun (2008) reported a lifetime and 12-month social phobia prevalence of 9.4% and 8.5% respectively among their university student participants. Another Nigerian study by Adewuya, Ola & Adewuyi (2007) using secondary school students aged 13 to 18 years found a 12-month prevalence for all anxiety disorders was 15.0% (female participants = 19.6%, male participants = 11.4%). These high prevalence findings clearly show that social anxiety is a real disorder among Nigerian adolescents. Gren-Landell (2010), using 2,128 adolescent aged 12 to 14, and 17 years reported a prevalence of 4.4% and 10.6% respectively. These percentages are lower than Nigerian findings.

Female participants have higher mean scores in all the subscales of SAS and at significant level except in fear of public eating. This finding that indicated higher social anxiety level in female participants than male participants is consistent with earlier findings of Gracia-Lopez, Ingles & Gracia-Fernandez (2008). They studied gender and age differences among Spanish-speaking adolescents and reported that girls exhibited significantly higher levels of social anxiety than did boys. Gren-Landell (2010) examined the epidemiological variables of social anxiety disorders among adolescents aged 12 to 17. He also found that female participants reported higher levels of social anxiety than male participants in all age groups. Another study was carried out by La Greca & Harrison (2005). They examined multiple levels of adolescents’ interpersonal functioning using an ethnically diverse sample of 421

public high school adolescents aged 14-19 years from middle class socioeconomic background. These researchers reported among other things that girls were observed to report more social anxiety than boys. Other researchers like Inderbitzen, Walter & Bukowski (1997), Fehn et al (2005), and Inderbitzen-Nolan & Walters, (2000) also found that female participants report more symptoms of social anxiety than male participants. This implies that female participants manifest social anxiety than male participants. Some of the reasons for this difference may include: (i) Female participants harbour higher level of fear in more social activities that may allow others to evaluate them negatively than male participants; (ii) it may stem from socialization and inequality in gender roles. Boys are expected to follow the traditional male sex roles and are therefore taught to be brave and courageous as they would become men. They may feel it is unacceptable to express fear and thus may be more prone to confront their fear situations. Women on the other hand are taught to be gentle, more accommodating and tolerant. Some girls or women may take these virtues as signs of submission which if not corrected may lead to social anxiety. Their coping styles will influence whether they develop social anxiety or not; (iii) girls spend more time with their mothers in activities within the homes than boys and therefore make them novel to social activities outside of their homes. In a society like ours, the tendency for mothers to instruct their girls about the social ills, the need to keep off from strangers, and not to trust anyone may be a regular topic during their time together. Boys on the other hand engage in more outside activities and are thereby exposed to strangers and subsequently more social situations; (iv) social anxiety, according to social learning theory, can be acquired through observation, imitation and modeling. Since girls spend more time with their mothers and it has been found that social anxiety disorder is more prevalent among female participants, it can also be inferred that girls may acquire it more than boys.

Contrary to the above finding, Umeh (2010) in his assessment of shyness among Nigerian adolescents and young adults reported no significant gender difference. However, girls obtain higher mean scores than boys in the core symptoms of shyness. This could be as a result of differences in participants and also that certain features of shyness may be distinct from social anxiety. While shyness may be hereditary, social anxiety may be more influenced by socialization and environmental factors.

Significant differences were found between the female and male participants in all the subscales of SAS except fear of public eating. The significant difference between female and male participants in fear of use of public toilet may be because of the state of public toilet and physiological make-up of females. Most public toilets are far from being clean and toilet diseases can be contacted by closeness to toilet bowls. The use of toilet by female participants involve getting close to the toilet bowl while male participants can choose the distance they want to keep away from the toilet and so reduces the fear of contamination or germs which may be one of the causes of this fear in female participants. Thus, excessive fear of public toilet use by female participants in an area where there is no option may lead to wetting and littering of environment with urine which can lead to environmental pollution as well as health hazard.

The findings on the trend of social anxiety among the five age categories showed that it decreases with increasing age among the first three younger age categories (ages 12-13, 14-15 & 16-17) and then picks up among the two older age categories forming a curve-linear trend progression among the different age categories. Adolescents within the age group 12-13 years, formed the age of entry into adolescent stage demonstrated the highest level of social anxiety. The peak level of social anxiety among this age group might probably be expected when one considers the drastic or sudden developmental changes (physiological,

physical and cognitive changes) that the young adolescents are experiencing. It may also be attributed to the novelty of some social situations such as dating. The finding is consistent with the study carried out by Garcia-Lopez, Ingels and Garcia-Fernandez (2008), who examined age differences in the exhibition of social anxiety among 2,543 Spanish-speaking adolescents from high schools. They divided their participants into three age groups-12-13 years, 14-15years and 16-17 years (like the first three groups in this study) and reported significant differences,with the highest percentage of socially anxious adolescents in the age group of 12-13 years and decreasing frequency across age. The finding is also in line with that of Velting & Albano (2001) in their study of the current trends in the understanding and treatment of social phobia.

The decline in social anxiety level among adolescents within age groups 14-15 and 16-17 years might be as a result of their adjustment to the developmental changes that characterize this stage and more experience in social situation. The decline is consistent with the finding of Garcia-Lopez, Ingels & Garcia-Fernandez (2008) discussed earlier on. However, older age group categories 18-19 and 20-21 years though adjusted to developmental changes manifest higher level of social anxiety. The higher level of social anxiety among age 18-21 years is consistent with Gren-Landell's (2010) finding among the Swedish adolescents. In his cross-sectional and longitudinal study, he reported that social anxiety disorder is common among older adolescents. The increase in level of social anxiety among the adolescents within these two age group categories might be attributed to their social relations, self consciousness and higher societal demands and expectations. In addition to these may be some developmental features such as taking some personal decisions, thinking of future roles and weighing readiness to cope with these challenges. Any of the combination of the above factors may therefore be responsible for the upward surge of social

anxiety among these age groups. This finding lends support to hypothesis four that predicted progression of social anxiety in adolescents from younger to older age groups.

Four levels of educational status were used in this study. They are JSS3, SSS1, SSS3 and one hundred level university students. The means and standard deviations of these participants revealed that SSS1 students have the highest in all the measures of social anxiety. They were followed by 100 level university students, then JSS3 students while the SSS3 students have the lowest except in fear of authority figure.

The findings on the influence of educational status on level of social anxiety revealed that significant differences occurred among JSS3 & SSS1 classes; SSS1 & SSS3 classes and SSS1 & 100 level with SSS1 groups having higher mean score in all cases. This finding could be attributed to change in phase of educational attainment: This class is a new stage of educational level and a stage where some critical decisions regarding life career is taken. At this level, students choose subjects that will ultimately determine their future career. They also meet with new teachers, probably with new class mates, have more academic challenges, and may even move to a new school. This agrees with Buss (1986) report that the experience of developing new peer relationship and adjusting to separate classes and teachers increases exposure to evaluative scrutiny, one of the reasons for social anxiety.

The findings of relatively low level of social anxiety manifestation among JSS3 and SSS3 students may be explained by these reasons: familiarity to school environment (having been there for more than two years); closeness to their teachers who have been teaching them for over two years: exposure to familiar subjects as the same subjects are been built on; and acceptance by peers they have known for some years. Apart from the above reasons, SSS3 students probably have more sexual awareness and may be more involved in dating. All these coupled with other uninvestigated factors may influence this finding. The finding

about JSS3 students contradicts Inderbitzen-Nolan & Walter's (2000) report that social anxiety is most problematic during junior high school years. They concluded that their findings might have been influenced by the fact that early to mid-adolescence is typically associated with the onset of formal operational thought when the adolescents are aware of the discrepancies between their perceptions of self and those of their peers. The factors discussed earlier and other unverified factors may influence the difference in the findings from these two studies.

In addition, the finding of low social anxiety level among SSS3 students is in consonant with the findings of Ndika, Olagbaiye & Agiobu-Kemmer (2009) who reported that adolescents at this level are more rational in their understanding and evaluation of self, their environment and how others perceive and react towards them. These understanding may lessen their social anxiety as seen in this study. Thus, this result refutes hypothesis three which predicted that social anxiety will significantly decrease with increase in educational status. This implies that educational attainment may not necessarily influence reduction in level of social anxiety.

5.4. Evaluation of Management Phase

The third phase was devoted to the management of social anxiety. Cognitive Behavioural Therapy (CBT) specifically Social Skills Training was used in the management. During the 15 sessions, the managed participants were given psychoeducation, training in non-verbal communication, conversation skills, relaxation techniques, training in assertiveness, dating skills and presentation skills. The use of modeling was also employed.

The findings of the management demonstrated on the efficacy of CBT in the management of social anxiety. It also showed that there is a significant effect of CBT on the measures of Fear of Public Speaking, Fear of Dating, Fear of Authority Figure, Fear of Social Inferiority, General Social Fear and SAS total. In addition, Partial Eta Squared showed that the effect of CBT had more impact in these measures. This result is consistence with the findings of Umeh (2010), in his study on shyness using both adolescents and young adults. It is also in line with the findings of Dashe, (2004); McManus et. al., (2009); and Clark et. al., (2006) in their studies which demonstrated the efficacy of CBT in the treatment of social anxiety. The implication of this result is that Social Skills Training reduces or eliminates social anxiety among the management group.

CHAPTER SIX

CONCLUSION

The focus of this study was on assessing and managing social anxiety among adolescents. Different definitions of social anxiety proffered by experts and researchers were reviewed. The study operationally defined social anxiety “as a psychological state of discomfort resulting from persistent irrational fear generally linked to the presence of other people and personal cognitive deficiency in interpersonal relationship”. Also reviewed from literature are varying theories explaining the etiology, maintenance and manifestation of social anxiety. After a critical consideration of these theories, three of them have been found relevant to the focus of this study and have been used as the theoretical framework. They are: Integrated Cognitive Behavioural Model of Turk, Lerner, Heimberg & Rapee (2001); Self-Presentation Theory of Schlenker & Leary (1982) and Bandura’s Social Learning Theory (1977).

This study also identified the antecedent factors and fear triggers associated with social anxiety. It determined the efficacy of CBT with main focus on Social Skills Training Techniques in the management of social anxiety among adolescents. The three steps taken in achieving the aims of this study are:

The development, standardization and validation of a Social Anxiety Scale. Factor analysis of the scale produced seven subscales indicating the multi-dimensional nature of social anxiety.

The second step is devoted to the assesement of social anxiety. This was accomplished with the use of Social Anxiety Scale with its seven subscales and Personal Data Questionnaire.

The third step solely focused on identifying and managing adolescents with high levels of social anxiety using CBT (specifically Social Skills Training) after which the effectiveness of CBT in managing social anxiety was established.

6.1. Implication of the Findings

1. The developed scale should enable teachers and future researchers on social anxiety screen their wards and participants for social anxiety, identify and refer those who may need professional help before it escalates to a bigger psychological problem.
2. The findings would be useful in understanding the debilitating nature of social anxiety and its treatment.
3. The findings should motivate others to do more research in this area of mental disorder which has long been neglected in our society based on the impression that it is not a problem and that most people outgrow it. This is particularly so when one considers its high prevalence and the co-morbidity of social anxiety and its debilitating effects on the sufferers.
4. The findings of this study would be very useful to mental health care professionals in designing treatment packages for the treatment of social anxiety.
5. The different subtypes of social anxiety that can be identified in the society should help both parents and care givers to study their adolescents and report to mental health care professionals whenever they discover any deficit in their adolescents.
6. The efficacy of Social Skills Training has shown that social anxiety is treatable, especially if discovered early before it becomes a clinical problem with other co-morbidities. Those with this problem could then be encouraged to seek for professional help.

6.2. Limitation of Study

This study was limited to demographic factors such as sex, age, educational level, and different subtypes of social anxiety so that factors that precipitate, maintain and sustain social anxiety could be empirically verified. In addition, the treatment of social anxiety was restricted to only Cognitive Behavioural Therapy (CBT) using specifically Social Skills Training (SST) technique. This was because Social Skills Training is more easily amenable to use in group and with adolescents with social anxiety than other forms of psychological management techniques (Anthony & Rowa, 2008). Generalization of this study's findings may not be too practical because of the limited number of participants when compared with the general population of adolescents in Lagos metropolis. The use of non-clinical adolescents has also limited its generalizing it to the clinical ones.

6.3. Recommendations for future studies.

The following are recommended for future studies on social anxiety.

1. Further research of a longitudinal nature of social anxiety that will elucidate etiological findings should be carried out. This may require financial support from research funds for thorough work and indepth study.
2. The occurrence of high prevalence of social anxiety among adolescents as established in this research has several implications. Earlier studies on social anxiety have identified its co-morbidity with other psychological disorders such as major depression, alcoholism, substance abuse and others (Stein, Fuesch, Mulleret et al, 2001, Kessler, Berglund, Demler, et al, 2003). Impairments in academic, occupational, and social functioning have also been identified with social anxiety (Baer & Garland, 2005; Wittchen, 1999). Adolescents are therefore at risk of

developing other disorders and numerous psychosocial impairments in adulthood if identification, prevention and treatment are not administered in time. It is therefore recommended that preventive and intervention strategies for early diagnosis and treatment of this disorder should be put in place at Federal, State and Local government levels.

3. In the light of scarce resources, government should formulate a policy whereby adolescents should undergo mental health screening for early detection of any psychological dysfunction most importantly social anxiety that might lead to the development of other problems such as substance abuse, depression etc in later stage of life. This policy for early detection and prevention for adolescents may be achieved in an efficient and cost effective way, especially if the adolescents are still in school where they could be accessed and be gathered together as a group for treatment.
4. Educating teachers about the etiology, symptoms and management of social anxiety could help them detect adolescent problems early enough and so be actively involved in the management of social anxiety among the adolescents.
5. It is recommended that Social Skills Training should be incorporated into school curriculum. This can be taught as a separate subject or joined with a relevant subject. It will support healthy psychosocial development of adolescents. This is important as it had been found that Social Skills is an important tool of change in attitude, feelings, thinking and in general behaviour of people. The introduction of Social Skills Training in schools will require teachers' training, a teaching manual and continuing support in the use of the program materials. This is in concordance with World Health Organisation's recommendation (WHO, 1997).

6. It would be necessary, in future studies, to pay particular attention to adolescents between the ages of 16 and 17 years to determine factors that might serve as buffer or that shield them from experiencing social anxiety like other age groups of adolescents.
7. More involvement in intra and inter school debates should be encouraged. This exposure will motivate more public speech among more adolescents. Incentives in form of trophies or cash and scholarship should be given to students to encourage more participation.
8. More specific studies should be done in the area of gender differences so that the variables that contribute to girls having higher levels of social anxiety can be identified and treated. This is urgently needed so that this debilitating problem will not be passed to future generations either through heredity or psychological or environmental influences (home set up).

6.4.Contributions to Knowledge

The study made the following contributions to knowledge:

1. The development and standardization of Social Anxiety Scale with its reliability and validity psychometric properties is one of the main contributions of this study to knowledge. This psychological instrument will be applied to diagnose social anxiety disorder in adolescents at secondary and tertiary levels. This scale measures seven subscales of social anxiety which can either be used as a single scale or individually depending on the study.
2. This study has been able to identify different social situations where adolescents exhibit social fear. Such social situations include: public speaking, dating, meeting strangers, presence of authorities, public restaurants, public toilets and others.

3. Cognitive Behavioural Therapy involving Social Skills Training techniques has been found to be efficacious in the management of social anxiety among adolescents.
4. The finding of a high prevalence (27.47%) among the participants confirmed that Nigerian adolescents manifest social anxiety disorders.
5. Both the factor loading and the findings of the study validate the hypothetical model.
6. The study has contributed to research on adolescents' psychopathology within and outside Nigeria thereby increasing the number of the few studies that are done on adolescents.

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