

## Exploring the Imperatives of Cognitive Behavioral Therapy in Managing Social Anxiety Disorder: A Thematic Discourse

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### Abstract

*This study explores the imperatives of cognitive behavioral therapy in managing social anxiety disorder. Social anxiety disorder is so intense that persons with the disorders feel that it is beyond their control. The extreme case of the condition may lead avoidance that might disrupt one's life. Social anxiety disorder sometimes is known as social phobia; a typical disorder that causes fear in social settings. Social anxiety is classified into interaction, observation and performance; and a combination of different factors, contribute to the development of the disorder. Nevertheless, cognitive behavioral therapy has been found to be effective in treating severe forms of anxieties and other forms of psychological disorders. And is recommended as first line of treatment for majority of social anxiety disorder. It is further recommended that cognitive behavioral therapy should be encouraged as a psychosocial intervention; using cognitive behavioral technique.*

**Keywords: Social Anxiety Disorder, Cognitive-behavioral Therapy, Cognitive Restructuring Therapy**

### Introduction

Most people are obsessively worried about the opinions and views others hold about them whenever they are in a social environment. They have this feeling that they might be embarrassed of the outcome consequences of that social context. They fear the outcome of social evaluation thus become apprehensive and susceptible to social situations. Social anxiety disorder is an intense persistent fear of been watched and judged by others. National institute of mental health, (2022) described social anxiety disorder as a common type of anxiety disorder where a person fears that he/she may be securitized, evaluated, or judged by others within a social scenario, such as speaking in public, meeting new people, on a date, being on a job interview, seminar presentations, answering a question in class, among others. ([www.nimh.gov/reprint](http://www.nimh.gov/reprint)). The fear people with social anxiety disorder have is so intense that they feel it is beyond their control. And the extreme case of the condition may lead to avoidance, that might disrupt one's life, thereby affecting relationship, daily outdoor engagements, such as work, school etc. while others would completely withdraw or avoid places or events that cause the distress. Social anxiety disorder sometimes is known as social phobia; a typical disorder that causes fear in social settings. Accordingly, British Psychological Society, (2013), described social anxiety disorder as a disorder marked by sentiments of fear and anxiety in social situations, causing considerable distress and impairing ability to function in at least some aspects of daily life. Barnhill, (2023) defined social anxiety disorder as characterization of certain social or performance situations, often avoided or endured with much distress. Colman, (2003) asserted that social anxiety disorder

is a disorder characterized by phobia of scrutiny by others or of being the focus of attention in social situations before perceived strangers. Similarly, Martin, (1991) viewed social anxiety disorder as an irrational fear associated with the presence of people, which when extended could be extreme. Following these definitions, social anxiety disorder is a mental health issue involving a dread of social situations. Khakpoor, Saed & Shahsaver, (2019) considered it to be prevalent, chronic and debilitating with complex symptomatology.

The International Classification of Diseases, 10<sup>th</sup> Revision (ICD-10); World Health Organization (1992), and Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> Edition Text Revision (DSM-IV-TR) described social anxiety disorder as a persistent fear of one or more social situations where embarrassment may occur and the fear or anxiety is out of proportion to the actual threat posed by the social situation as determined by the person's cultural norms. And a typical social situation can be classified into those that involve interaction, observation and performance. Over the years, research suggests a combination of different factors, such as genetic, environmental and biological interactions as contributors to the development of the disorder. Consequently, this study therefore, examines the imperatives of cognitive behavioral therapy in treating social anxiety disorders.

### **Etiology of social anxiety disorder**

Like many other mental health conditions, social anxiety disorder arises from complex interaction of biopsychosocial factors, (Tillfors, 2004). The underlisted are some of the causes of SAD.

**Inherited traits:** Substantially, there are empirical evidences of familial link between children and parents of social anxiety disorder. Spence & Rapee, (2016) investigated the etiology of social anxiety disorder and the result revealed a connection of strong familial links of children of parents with social anxiety disorder to have significant increased risk of experiencing the disorder. This explains the fact that parental factors are associated with children with social anxiety disorder, where research has further shown that anxiety disorders runs in families; to that great extent- that is genetic, (children on the account of family history are like to develop social anxiety disorder if the biological parents or siblings have same condition. Inherited traits such as facets of temperaments like shy, timid, withdrawn when facing new situations may be at greater risk of developing the disorder

**Socio-environmental:** Social anxiety disorder may a learned behavior. Some persons develop social anxiety disorder after an unpleasant or embarrassing social situation and parents who model their children with anxious and negative behaviors such as overprotection, possible parental rejection, bullying, ridicule, humiliation, family conflict, trauma or abuse etc., are associated directly with levels of anxiety in their children. Accordingly, Rapee, et al (2010), observed that parenting style comprising low support, hostile behavior, authoritarianism tend to result in formation of anxiety children when in social situations.

**Biological:** A problem with the brain structure is a potential causal factor of social anxiety disorder. A structure in the brain called amygdala is involved in strong emotions. It arouses fear response. The amygdala is responsible for the physiological changes associated with flight or fight response which mobilizes the body to respond to perceived threats, whether real or imagined. Actions in the amygdala trigger plethora of symptoms identified with

intense anxiety, rapid heartbeat, sweaty palms, respiratory excitement, muscle tightening etc. When people have a surge in anxiety, mental focus shift to a part of the brain called prefrontal cortex. It is the job of the prefrontal cortex to calm those reactions rationally. And if no threat is presented, it sends signals to the amygdala that defuse its anxious response. But in the social anxiety sufferer, the prefrontal cortex actually amplifies the activity of the amygdala instead of calming it. People with overactive amygdala may have heightened fear response, due the interpretation of the social interaction as legitimate threat by the brain, which no rational reflection can sooth such fears, hence, causing increased anxiety in social situations

### **Characteristics of social anxiety disorder**

Unarguably, social anxiety disorder profoundly affects someone's ability to socialize and communicate with other people, and those suffering from full blown social anxiety disorder; the symptoms can be overwhelming, debilitating, and apparently beyond control. The defining characteristics of social anxiety disorder, according to, ([www.bridgestorecovery.com](http://www.bridgestorecovery.com)) include:

#### *Physical signs*

People with severe social anxiety disorder exhibit a range of physical response triggered by stress-inducing social encounter. Such as;

- Sweating
- Blushing
- Shaking, trembling or shivering
- Racing heart rate
- Tightening in the chest, respiratory difficulty and muscle aches
- Nausea, stomach cramp and dry mouth
- Brain fog (inability to think or what to say).

Extreme sufferers of social anxiety disorder will likely experience disturbing physical symptoms in social situations more often, but may be comfortable around close family members or friends, however, almost any other encounter will provoke anxious response.

#### *Psychological and emotional signs*

The minds of the social anxiety disorder sufferers are always busy reflecting on their fears, expectations, past experiences and concerns over performance in social situations. They do this before, during and after social interactions, compulsively and in a way that damage their self-esteem, ([www.bridgestorecovery.com](http://www.bridgestorecovery.com)). The psychological and emotional signs include;

- Fear of rejection, or being judged as inferior by observers
- Concern about being embarrassed or humiliated for poor social performance
- An aversion to being the center of attention
- Taking any teasing or constructive criticism personal
- Extreme discomfort and feelings of inadequacy being around authority figures
- Overexcitement at being praised or commended (excessive reflecting about what others think)
- Unwilling to speak up and offer opinions for fear of being thought foolish
- Feelings of shame and embarrassment over social anxiety itself stewing over what was said and done long after a conversation has ended

- Strong anticipatory anxiety and fear before a social encounter takes place
- These symptoms indicate extreme self-consciousness, high sensitivity and an inclination to make self-incriminating personal judgements. Which makes the sufferers fear the negative judgements of others, which seldom occur in reality, yet does not prevent sufferers from criticizing themselves all the times, ([www.bridgestorecovery.com](http://www.bridgestorecovery.com)).

### **Cognitive behavioral therapy**

Cognitive behavioral therapy is a combination of cognition and behavioral dimensions of therapies, with behavioral therapy rooted in behaviorism and traced back to the 1950s through the works of Ivan Pavlov, John Watson and B.F Skinner among others which seeks to modify learnt behavior that are undesirable and replaced them with acceptable positive behaviors, particularly with the use of consequences and reinforcement. The goal of behavioral therapy is to reinforce desirable behavior and eliminate unwanted ones. So, cognitive behavioral therapy combines cognitive therapy and behavior therapy by identifying maladaptive pattern of thinking, emotional response or behavior and then replacing them with more adaptive, desirable behavioral pattern. Cognitive behavioral therapy (CBT) is a treatment approach usually for people with a range of mental and emotional issues including anxiety. Wikipedia defines cognitive behavioral therapy as a psychosocial intervention that aims to reduce symptoms of various mental conditions primarily depression and anxiety. Accordingly, cognitive behavioral therapy is a psychotherapeutic approach that addresses dysfunctional emotions, behaviors and conditions, whereby people could change their unhealthy thoughts and behaviors. Similarly, Coleman, (2003) explained cognitive behavioral therapy to be a form of psychotherapy based on cognitive therapy and behavior modification, in which clients learn to replace dysfunctional behaviors with adaptive alternative. Cherry (2023) said that cognitive behavioral therapy is a type of psychotherapeutic treatment that helps people learn how to identify and change destructive or disturbing thought patterns that have a negative influence on behavior and emotions. Cognitive behavior theory is of the view that human thinking determines human behavior and feelings. In cognitive behavior theory, when people feel distressed or worried, they fall into thinking pattern. So, from the therapist perspective, if we can change the way a person thinks, then we can change their perceptions. In the same vein, Clark, (1995:) asserted that “at the heart of the cognitive therapy model is the view that the human mind is not a passive receptacle of environmental and biological influences and sensations, but rather that individual is actively involved in construing their reality”, (156). Cognitive behavioral therapy has been researched by different researchers relative to cognition and behavior, but fundamentally, CBT is viewed as a model with shared theoretical assumptions, (Dobson & Dozois, 2001); with three main propositions such as;

- That cognitive processes affect behavior and emotions
- That cognitive activity can be monitored and change
- That changes in people’s cognitions can lead to change in behavior

Cognitive behavioral therapy focuses on changing cognitive distortion such as irrational thoughts, beliefs etc. and their associated dysfunctional behavioral patterns using effective psychosocial strategies that target at solving the problem. For Field, Beeson & Jones, (2015)

cognitive behavioral therapy is based on the belief that thought distortion and associated maladaptive behaviors play a role in the development and maintenance of many psychological disorders and that the symptoms and associated distress can be reduced by learning new information processing skills and coping mechanisms. Review studies found cognitive behavioral therapy to be effective in treating severe forms of anxieties and other forms of psychological disorders, and is recommended as first line of treatment for majority of psychological disorders, (McGuire, Piacentini, Brennan, Lewin, Murphy, Small, & Storch, 2014). Similarly, Baardseth, Goldberg, Pace, Wislocki, Frost, Siddiqui et al. (2013) in a study of cognitive behavioral therapy versus other therapies found CBT an effective therapeutic intervention approach alongside other bona fide therapies. In other words, CBT has a significant imperativeness in managing psychological disorders.

### **Imperatives of Cognitive behavioral therapy on social anxiety disorders**

Social anxiety disorders are not cultural stereotyped, not a respecter of class, gender or background and are inevitable within the socio-cultural environment in so far as the conditions necessary for the disorder are inherent. Within the context of Nigerian cultural and social milieu, social anxiety is prevalent with children who become overprotective especially the girl child possibly for fear of unwanted pregnancy among others. Most parents go further to enact rejection, bullying, ridicule, humiliation, even as far as labelling them “**never-do-well**” hence social anxiety disorders become palpable. For some Nigerian families such unpleasant or embarrassing social situation further trigger conflict, trauma or in worst cases, abuse. Cognitive behavioral therapy therefore, helps to identify the unhealthy core beliefs and rigid personal rules that contribute to social anxiety. In that, cognitive behavioral therapy enables in identifying specific thoughts, emotions, and behaviors fueling the distress, and from there could begin to explore the feeling and then restructure them into helpful beliefs. More specifically, cognitive behavioral therapy helps to recognize distorted thought pattern and reframe them into a more realistic pattern. Research have provided credible results that found cognitive behavioral therapy to be efficacious on social anxiety disorder. Heimberg, (2002) investigated the efficacy of cognitive behavioral therapy and found CBT to be the most nonpharmacologic approach to the treatment of social anxiety disorder. He further maintained that the efficacy of CBT for the treatment of social anxiety disorder and associated behaviors relative to various CBT techniques is positively significant. Also, Aminu & Abdullahi, (2021) investigated the effect of cognitive restructuring technique on social anxiety and found cognitive restructuring to have had effect on physical, biological and as well as cognitive components of social anxiety. Cognitive behavioral therapy encompasses a range of techniques and approaches that address irrational emotions and the associated undesirable behavior. Below are some of the techniques;

**Cognitive restructuring:** It is also in no doubt that most social anxiety disorders in most families in Nigeria is biological and inherited where parental factors are linked with children with social anxiety disorder; whereby researches have revealed that anxiety disorders runs in families; to that extent making it is genetic, but with cognitive restructuring technique it possible deconstruct unhealthy thoughts and rebuild them in a more balanced and accurate way. It is a therapeutic technique that helps to know as well as to change the negative



thinking patterns. According to Nicole & Stranborough, (2023) cognitive restructuring explore ways to interrupt and redirect thought patterns that have become destructive and self-defeating mental health issues. Again, that cognitive restructuring technique is at the heart of cognitive behavioral therapy; a well-known talk therapy approach that effectively treat anxiety disorder and other mental health conditions. Unhelpful thinking which is characterized by intense fears of been securitized, evaluated, or judged by others demobilizes an individual with debilitating consequences of social susceptibility. Cognitive restructuring helps social anxiety sufferers to identify challenges of such unhelpful thought pattern and belief, and replaces them with helpful thinking habits. Corroborating the foregoing, Emmanuel, Ngozi, & Anayochi, (2014) in a study of effects of cognitive restructuring affirms that cognitive restructuring is effective in reducing anxiety among farmers, in Nigeria. In another related study, Owen-Sogolo, (2021) carried out a study on the effectiveness of cognitive restructuring technique and revealed that anxiety could be reduced using cognitive restructuring. Similarly, Becks (2006) cited in Owen-Sogolo, (2021) conducted a study and found that cognitive restructuring technique is a psychotherapeutic approach that addresses dysfunctional emotions, maladaptive behaviors, cognitive processes and contents through a number of goal oriented, explicit systematic procedures. Aminu & Abdullahi, (2021) having recognized social anxiety as been one of the salient psychological problems; examined the effect of cognitive restructuring technique on it, and concludes that cognitive restructuring technique is effective in reducing social anxiety disorder regardless of the components. Individuals with social anxiety disorder have cognitive distortion with significant level of impairment of functionality, for which cognitive behavioral therapy is widely accepted intervention model.

**Exposure therapy:** With exposure therapy technique, it is possible to treat anxiety disorder through desensitization. It involves exposing the social anxiety sufferer to the source of the anxiety or its context without any intention to cause any harm. According to Joseph, & Gray, (2008), doing so is to help the social anxiety sufferer to overcome the anxiety or distress. Several studies have demonstrated the effectiveness of exposure therapy in the treatment of social anxiety and other forms of anxiety. Accordingly, Modglin & Romanoff, (2023), asserts that, some people overcome their fears when they face it head-on. Exposure therapy is a psychological treatment designed to help people with fear- related disorders by gradually and safely exposing them to the object, activity or situation they are afraid of. So, exposure therapy is a type of cognitive behavioral therapy for anxiety disorders; a type of psychological treatment with goal of changing irrational thought and behavioral patterns with specific focus on confronting the fear triggers, by repeatedly and gradually exposing the sufferer in a safe and controlled environment. In other words, exposure therapy could be regarded as a systematic process of bringing a person into contact with something they fear, like object, situations, events or scenarios with the view to decreasing the avoidance of this situations. Exposure therapy could take the forms of; graded exposure; (this involves starting with less intense fear exposure working the way up to more intense exposure); flooding exposure (is rather than proceeding gradually, the client is exposed to the trigger all at once. This is often referred to as more intensive exposure usually for anxiety or fear of small space). And systematic desensitization (which involves exposing slowly and gradually to the

fear triggers, and using relaxation simultaneously. Reason is that the trigger is associated with relaxation instead of anxiety). Other classifications of exposure therapy include; In vivo exposure therapy, interoceptive exposure therapy, imaginal exposure therapy and virtual reality exposure therapy. Power & Emmelkamp, (2008) opined that exposure therapy has gained substantial attention as an important intervention for social anxiety. So, exposure therapy to anxiety disorder is known to help reduce the sufferer's anxiety level, by dealing with triggers, strategically, (Setyawati & Menaldi, 2020)

***Situation-focused reappraisal:*** Situation-focused reappraisal is for the reinterpretation of the situational context of a given stimulus, by giving the negative interpretation a positive meaning in a way to regulate emotional experience. According to Ohahuru (2016), the occurrence of distress and anxiety mostly depend on people's perception. He further argued that if distress and anxiety depend on perception, irrational one for that matter, then it is possible to reduce that distress by modifying this perception. The concept of modification is interchangeably used with behavior therapy (Nwankwo, 2007) to mean a helping process that primarily bring about change in behavior as a result of modifying our perception. To reappraise literally means to re-evaluate, re-examine as to restructure one's initial perception of a situation, in this case the fear triggering situation, object or event and converting the associated negative perception to positive decisions that is energized further with desirable actions. To do this, is to focus on positive appraisal which generates positive emotional state, that increases a person's self-control in a threatening situation, Ohahuru (2016). In a related standpoint, Akanji (2012) corroborates that negatively inflicting fears when modified in a manner of positive thinking enhances wellbeing.

***Social skill training:*** Social skill training essentially is for the purposes of improving on social skills on people with psychological conditions, such as social anxiety disorder as to enable them effectively build skills, gain confidence, and self-esteem necessary for social interaction. Social skill training is also referred to as a collection of learning activities and behavioral intervention; of which several researches support its efficacy in treating psychological disorders, (Gainey & Moawad, 2023). Specifically, social skill training is a psychotherapeutic treatment that involves improving interpersonal skills such as communication and how to behave or act in a social setting through the technique of modelling, behavior rehearsal and shaping, (Hassan, 2021). With modelling, the individual watches and sees how and what others do in social setting and imitate them appropriately and accordingly. Behavior rehearsal entails practicing those social skills in a therapy session and eventually replicate them in real life situation. Shaping, involves gradual building up of the learnt behavior in the face of the threatening situations. Studies have found social skill training to be effective in improving social skills of those with social anxiety disorder; and that with social skill one learns how to better manage social interactions. As a therapeutic service, social skill training, helps individual to develop communication skills, as well as enabling a person to express positive and negative feelings towards others, including coordination of verbal and nonverbal communication cues. The techniques for social skill training include behavioral rehearsal, corrective feedback, instruction, positive reinforcement etc. And the skills targeted in the training are; verbal communication, nonverbal communication, assertiveness, active listening, empathy, self-control, social problem solving

among others. Strong social skill helps in building and maintaining successful relationship, personally and even professionally, and some of the social skills includes;

- smiling when greeting people,
- keeping eye contact during conversation,
- shaking hands when meeting someone
- tones of voice and volume
- appropriate emotional reaction (laugh when someone says something funny, and vice versa)

It is important to note that social skill increases one's chance to communicate one's needs and wants effectively, develop more relationships, easily handle and navigate tricky social situations and yet feel happier. Somebody that uses social skills effectively to relate or interact with others is adjudged socially competent, (Hassan, 2021)

### **Conclusion**

Cognitive behavioral therapy provides psychosocial intervention which helps sufferers of social anxiety disorder to recognize, and link the irrational thoughts, emotions, and the associated behaviors and symptoms, using both the cognitive and behavioral therapies. Using cognitive behavioral therapy is to identify and challenge the negative thoughts, then seeking help to replace them with adaptive, desirable thinking pattern in relation to identifying the causes and ways of managing it. The cognitive behavioral therapy encourages relaxation, desensitization, restructuring, modelling, among others. Cognitive behavioral therapy as adjudged nonpharmacologic approach; found efficacious to the treatment of social anxiety disorder.

### **Recommendation**

In the light of the above, the following recommendations were made:

- Cognitive behavioral therapy should be encouraged as a psychosocial intervention, to recognize, and link the irrational thoughts, emotions, and the associated behaviors
- Proper utilization of cognitive restructuring to manage social anxiety disorder is important
- Therapists should expose the social anxiety sufferers to the source of the anxiety or its context without any intention to cause any harm because doing so will help the social anxiety sufferer to overcome the anxiety or distress
- Therapeutic service of social skill training, which helps individual to developed communication skills, as well as enabling a person to express positive and negative feelings towards others, including coordination of verbal and nonverbal communication should be encouraged
- Positive appraisal which generates positive emotional state, that increases a person's self-control in a threatening situation should also be encouraged.



## References

- Aminu, H.P & Abdullahi, M.I (2021), Effect of cognitive restructuring counselling technique on social anxiety among secondary school students in Ilorin metropolis, Kwara state, Nigeria Nigerian journal of Guidance and Counselling, vol 26 No 1 retrieved online 27/11/2023
- Baardseth, T.P, Goldberg, S.B, Pace, B. T, Wislocki, A.P, Frost, N.D, Siddiqui, J.R, Lindemann,
- A.M, Kivlighan, D.M, Laska, K.M, Del Re, A.C, Minami, T, Wampold, B.E (2013), Cognitive-behavioral therapy versus other therapies: redux; Clinical Psychological Review, vol: 33, Issue 3, 395-405, doi.org/10.1016/j.cpr.2013.01.004-PMID 2341687, retrieved online, 27/11/2023
- Becks, A.T, (2006). Cognitive therapy. Itasca, IL: F E Peacock publishers. *British Psychological Society*, (2013)
- Clark, D.M, (1995). Perceived limitations of standard cognitive therapy: A consideration of efforts to Beck's theory and therapy. *Journal of cognitive psychotherapy*, 9 (3), 153-172, retrieved online, 27/11/2023
- Colman, A.M. (2003). Dictionary of psychology, New York, Oxford university press
- Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> Edition Text Revision (DSM-IV-TR)
- Dobson, K. S, & Dozois, D. J (2001), Historical and philosophical bases of the cognitive behavioral therapies in K.S Dobson (Ed), *Handbook of cognitive behavioral therapy* 2<sup>nd</sup> ed., pp3-39 New York. Guilford press
- Emmanuel, O.O., Ngozi, U.P., & Anayochi, N. (2014). Effect of cognitive restructuring technique and self-efficacy training on farming anxiety of farmers in Ibiadan Emu farming community, Edo State Nigeria. *Advances in social sciences research journal*, 1(5), 222-231
- Field, T.A, Beeson, E.T & Jones, L.K. (2015). Neuroscience-informed cognitive- behavior therapy in clinical practice: A preliminary study; *journal of mental health counseling*, vol 38 (2)pp: 139-154; doi:10.17744/mehc.38.2.05
- Gainey, K & Moawad, H (2023). What is social skill training & how it is used? ([www.choosingtherapy.com](http://www.choosingtherapy.com))
- Hassan, A, (2021). Effect of cognitive restructuring and social skills training on social phobia Among secondary school students in Kaduna, metropolis, Nigeria: an unpublished, Ph.D.thesis, department of educational psychology & counseling, ABU, Zaria
- Heimberg, R. G, (2002), Cognitive behavioral therapy for social anxiety disorders: current status and future direction; *Biological Psychiatry*, vol: 51, (1), 101-108, doi.org/10.1016/S0006-3223(01)01183-0, retrieved online, 27/11/2023

- Joseph, S.O & Gray, M.J (2008). Exposure therapy for PTSD, *Journal of Behavior Analysis of Offender and Victims: treatment and prevention*. 1 (4); 69- 80; doi:10.1037/h0100457
- Martin, D.G (1991). *Psychology: principles and applications*, Ontario, prentice hall Inc
- McGuire, J.F, Piacentini J, Brennan, E. A, Lewin A. B, Murphy, T.K, Small, B.J & Storch, E. A (2014), A meta-analysis of behavior therapy for Tourette syndrome, *Journal of Psychiatric Research*, 50: 106-112, doi:10.1016/j.jpsychires.2013.12.009, retrieved online, 27/11/2023
- Modglin, L. & Romanoff, S. (2023). What is exposure therapy? ([www.forbeshealth.com](http://www.forbeshealth.com))
- National institute of mental health, (2022). ([www.nimh.gov/reprint](http://www.nimh.gov/reprint))
- Nicole, W & Stranborough, R.J (2023) How to change negative thinking with cognitive restructuring ([www.healthline.com](http://www.healthline.com)), retrieved online 29/11/2023
- Nwankwo, O.C. (2017). *Behavior modification: Principles & application*; Port Harcourt, Pam unique publishers
- Ohahuru, S.E, (2016) Sociopsychological variables of stress in the work-related environment: an issue for management; *African social & educational journal*, vol 5, number 1, pp 21-27
- Owen-Sogolo, O. (2021) Effectiveness of cognitive restructuring technique in the reduction of test anxiety among secondary school students in Benin metropolis of Edo State, Nigeria. *Journals. Uniziks.edu.ng*. retrieved online
- Power, M.B & Emmelkamp, P.M.G, (2008). Virtual reality exposure therapy for anxiety disorders: A meta-analysis. *Journal of anxiety disorders*, 22, 561-569
- Setyawati, J.I & Menaldi, A. (2020). Exposure therapy as an intervention for social anxiety disorder: A case study of a college student, *International academic forum*, doi:10.22492/issn.21865892.2021.23
- Spence, S. H & Rapee, R. M. (2016) The etiology of social anxiety disorder: An evidence-base Model, *National library of medicine, Behav Res Ther* 2016 Nov;86: 50-67; 10.1016/j.brat.2016.06.007. Epub 2016 jul1. PMID: 27406470
- Tillfor M. (2004) Why do some individual develop social phobia? A review with emphasis on the neurobiological influences, *Nordic Journal of Psychiatry*; 58: 267-276, retrieved online [www.bridgestorecovery.com/causes](http://www.bridgestorecovery.com/causes) of social anxiety retrieved online, 27/11/2023.
- World Health Organization, (1992) *International Classification of Diseases*, 10<sup>th</sup> Revision, (ICD-10)