



Effect of Logo-therapy Technique on Reducing Social Anxiety Disorder and Promoting Health and Well-being among Junior Secondary School Students in Imo State, Nigeria

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Abstract

This study evaluated the effect of logo-therapy on reduction of social anxiety disorder and promoting health and well-being among secondary school students Orlu, Imo State, Nigeria. The study was carried out in Orlu Local Government Area. The sample of the study was 48 social anxiety disorder students in junior secondary schools Orlu, Imo State. The researcher formulated two research questions and two hypotheses to guide study. The study was a quasi-experimental study adopting pre-test, post-test and control group arrangement design used on a sample of 48 social anxiety disordered students were purposefully drawn from two randomly selected Co-educational senior secondary school class two students in Orlu, Imo State. In each school, one intact group was selected, the groups were assigned, experimental and control conditions. Two research questions and null hypotheses were tested at 0.05 level of significance. A 20-items instrument titled Social Anxiety Disorder Reduction Assessment Rating Scale (SADRARS) developed by the researchers was used. Two training programmes namely: Logo-therapy Technique and Conventional Lesson Treatment Plan were developed. Logo-therapy was used for experimental while control received conventional teaching method. The two techniques were administered before and after treatment. Instrument was validated and reliability index of 0.79 was obtained. Mean and Standard Deviation were used to answer research questions while Analysis of Covariance was used to test hypotheses. Results revealed that Logo-therapy was effective in reducing social anxiety disorder among junior secondary school students. Also logo-therapy was found to be effective in improving student's mental health. No significant effect on students' mental health in wellness based on gender was found. However a major health education teaching and counselling implication of the findings was that reduction in social anxiety disorder depends on training in logo-therapy and this suggests that health educators would achieve better results if students were equipped with relevant skills using logo-therapy and education institutions incorporating Logo-therapy in lifestyle modification.

Keywords: Logo-therapy, Mental health, Reduction, Social anxiety disorder, Well-being.

Introduction

Every student gets nervous or anxious from time to time especially when speaking in public. For instance, when preparing or writing examinations. For some students, however, social anxiety disorder becomes so frequent, or forceful, that it begins to take toll on their lives, health, well-being and education. Basically, education provides us the opportunity for teaching strategy for



teachers in getting information across. According to Kikelomo & Babatunde, (2020) scholars have attributed to poor health, poor achievement in their academics to ineffective teaching. In course of this ,there is earnest need to modify teaching strategies through diversification to get a better way of learning other than the traditional ways (lecture, laboratory, recitation) to improve and better students' understanding, critical thinking, memory retention and well-being.

Social anxiety disorder is a common and serious mental illness that affects how an individual feels, thinks, and can act. Social anxiety disorder affects people from all walks of life, in all countries. It cause mental anguish and influences people's ability to carry out their daily activities, with sometimes devastating implications for relationships with family, peer, and friends, and the ability to earn a living (World Health Organization [WHO], 2017) World Health Organization (2017) estimated that between 1999 and 2003, the number of people suffering from social anxiety disorder increased by nearly 50%. WHO further reported that 10% of the World's population is affected by anxiety and depression and that its prevalence is higher in women than in men. Mental health is defined as a state of well-being in which every individual realizes his potential, copes with normal stress of life, works productively and fruitfully, and makes contribution to his community (Okechukwu-Omeje et al., 2020). Mental health covers a wide range of activities related to promotion and maintenance of well-being, prevention of mental disorders, and treatment and rehabilitation of people affected by mental disorders in an occupational setting (WHO, 2016). Cameron and Schneider (2018) stated that mental health is generally been accepted as to play an integral role in defining the overall or total health (wellness).

Wellness of learners has attracted attention of scholars, parents, policy makers and planners. Wellness is an active process of becoming aware of making choices towards a healthy and fulfilling live (Ariyo, 2020).However, wellness is a continuous circle, wellness should incorporate sustainability, intergenerational justice, ecological limits and social equity (Amil, Moulin, & Gagnon, 2025). Therefore health should be for people living presently and those that should be in the future .Geronchek (2015) opined that it is therefore so important for everyone to achieve optimal wellness to subdue stress, reduce risk of illness and ensure positive interactions that can be derived from logo-therapy, exercise and social anxiety disorder free. An individual well-being is however reduced when distressing emotions are intense or elongated and damage an individual's capability to perform in his daily activities (Oke, 2023).

Social anxiety disorder (SAD) is characterized by a fear of interacting with people, due to worries over the possibility of being negatively scrutinized and judged by them (Gilbert &Procter, 2016). Graham &Topham (2012) reported that according to presentation model, social anxiety occurs when an individual wants to present a favourable public image, but doubts his ability to do so. Anxiety disorder comes as a feeling of unease, worry, fear, or apprehension that are strong enough to interfere with the individual's job performance, schoolwork and personal relationships (Wakjissa & Umar, 2023).Gilbert &Procter (2016) opined that fear and doubt as a result of social anxiety disorder may be triggered by low self-worth and internalized shame. Individuals who suffer from social anxiety disorder may worry about acting or appearing visibly anxious like blushing, stumbling over words, trembling or being viewed as stupid, awkward or boring. As a result, this group of people always avoids social situations, and when a social situation is mandatory, they obviously experience social anxiety disorder. People with social anxiety disorder typically avoids social and educational gatherings that are noticed as



threatening (Curthbert, 2012). However, the avoidance can in a very big way hinder educational achievement, social interaction, exercise participation, relationships and quality of life (Stein & Kean, 2010). Varied efforts have been made to reduce social anxiety disorder, improve and promote health among the students in Imo State, yet the situation has remained the same. For instance, pharmacotherapy, cognitive therapy, applied relaxation, interpersonal psychotherapy have been used with little or no significant reduction of social anxiety disorder in patients (Rizwan et al., 2015).

Literature suggests that logo-therapy has the potential for reducing social anxiety disorder and improving mental health in wellness relationships among students (Jacquelyn, Kang & Matthew, 2018). Williams & Cochrane (2019) explained that result of treatment efficacy for selective serotonin reuptake inhibitors (SSRIs and serotonin-norepinephrine reuptake inhibitors (SNRIs) was slow; one wonders effect logo-therapy would have in reduction of social anxiety disorder for improving mental health in wellness relationship.

Logo-therapy is a psychotherapeutic approach developed by Viktor Frankl cited in Fader (2019). Fader indicated that the driving force behind logo-therapy is the idea that human beings are motivated by a search for meaning; indicating that meaning of life is the biggest stressor on people's psyches. Main idea behind logo-therapy is that lack of meaning is chief source of stress as well as anxiety, and logo-therapy aids patients to reach meaning of life (Faramarzi & Bavali, 2017). Therefore, logo-therapy is a kind of psychotherapy which believes that lack of meaning causes mental health issues (Uroko, 2021). The author further opined that logo-therapists believe that lack of meaning can lead to emptiness and hopelessness, so they try to help people find meaning, creative and attitudinal values. Kang et al, (2013) opined that logo-therapy has recently been used to help students, whether in context of giving elementary school pupils sense of meaning and covering their levels of depression, or in context of giving first year university students logo-therapy based support. However, For example, Shima and Hassan (2016) carried out a study on "A survey on efficacy of group training with logo-therapy on loneliness and anxiety of death in elderly people, found out that logo-therapy had a significant effect".

In employing logo-therapy to help students with social anxiety disorder, gender is a factor or variable that may be deemed to influence effectiveness of the therapy. Gender denotes social and cultural roles of each sex within a given society (McGuinn & Newman, 2018). Ogrondniezuk and McCallum (2011) reported that female patients prefer to be listened and understood in a way that precludes kind of distancing that may occur in traditional interpretative models of therapy. In view of these discrepancies of opinion, this study seeks to contribute in resolving this controversy over gender as it affects use of logo-therapy in treatment of social anxiety disorder among students. The researcher is therefore motivated to embark on this study to determine effect of logo-therapy technique on reduction of social anxiety disorder among secondary school students in Imo State.

Generally, social anxiety disordered students do not find it easy associating with their peers or friends, especially during social interaction, public speaking and attempting to answer questions in classroom. They feel anxious when they perceive that they cannot meet up with expectations from their classmates. Parents and teachers are worried about students' feelings of inadequacies in academics. Even when various efforts have been made by both teachers and therapists to



eliminate or reduce the disorder, yet students in Imo State are most time socially anxious at public performance situations; indicating that those efforts have not worked satisfactorily.

Available literature reports from outside Nigeria tend to suggest that logo-therapy could be effective in reduction of stress and depression among children and adult. Logo-therapy attempts to help people find meaning in solving their problems, however, the extent logo-therapy can reduce social anxiety disorder in environment is yet to be investigated. Therefore, the present study sought to evaluate the effectiveness of Logo-therapy in reducing social anxiety disorder among secondary school students in Imo State. Specifically, the study sought to: determine the: difference in the mean social anxiety disorder scores of students exposed to logo-therapy and those not exposed to. interaction effect of gender and logo-therapy on the mean social anxiety disorder scores of male and female students exposed to logo-therapy.

Hypotheses:

Methods:

Study design and setting

he design of the study was quasi-experimental study adopting a pre-test, post-test and control arrangement to determine the effect of logo-therapy on reducing social anxiety disorder and promoting health and well-being among junior school students. Otolehi, Nnadozie & Okwarakanu (2021) explained quasi-experimental study as a study in which a treatment procedure or programme is intentionally introduced and result or outcome is observed.

The study was conducted in Orlu local government area in Imo State, Nigeria.

The population of the study consists of 48 junior secondary school two (JSS2) students from two coeducational junior secondary schools in Orlu, Imo State, Nigeria with the highest number of students with social anxiety disorder. The population is finite population and is easily estimated.

Sample size and sampling technique

The sample size used for the study was 48 respondents in the two-educational secondary schools in Orlu, Imo State. The entire population was chosen as the sample for the study because it was few and manageable. Onuoha (2025) explained that when the population for a study is few or small, the total population should be selected as the sample for the study. The 48 students were drawn into groups namely; experimental group and control group. This process was achieved using balloting by replacement method.

Data collection instrument

The researcher constructed instrument (questionnaire) which was used to obtain information from the respondents. The instrument was tagged: Social Anxiety Disorder Reduction Assessment Rating Scale (SADRARS). The Social Anxiety Disorder Reduction Assessment Rating Scale (SADRARS) contains 20 items derived from literature based on the principles of content relevance. Before the commencement of the experiment, the test items were administered to 30 non-participating students but of the same cultural background and having the same social anxiety disorder. This was done to determine the consistence of students who did not participate in the study. The instrument has two clusters called A and B. The highest score on the scale is 80 points which signified the highest level of anxiety disorder reduction, whereas 20 points on the scale signified proper anxiety disorder. The social anxiety disorder reduction assessment rating



scale has a reliability coefficient of 0.79. The reliability coefficient of the instrument was calculated using Cronbach's alpha statistics. Students who scored 50 points and above were confirmed as social anxiety disorder reduced students.

Data collection procedure and analysis

An introductory letter was written by the researcher to the school authority seeking permission to conduct the study. After approval as granted to the researcher met with the respondents and sought for their content forth programme. The teaching activity using logo-therapy technique lasted for six weeks (6 week). The researcher sought the consent of a week for the treatment therapy. This was granted to the researcher and the program took off and lasted for 6 weeks

In taking control of the extraneous variables that could possibly affect the results of the study, the researcher used randomization in group the respondent. However, the Rosenthal effect as controlled by keeping the control group equally by, with their usual daily school routine exercises during the experimental sessions. Through these measures, the combinations which are beyond the reach of the research were controlled by using Analysis of Covariance (ANCOVA) statistical tool for Analysis of Covariance was used to compare the differential effectiveness of logo-therapy technique and normal classroom teaching. Mean and Standard deviation and analysis of covariance were used to answer the research questions

The experimental group A has 48 respondents, consisting 27 social anxiety disorder students and 21 normal students. Group B which is the control group consist of 48 respondents, 27 social anxiety disorder students and 21 normal students. The experimental group A was exposed to the logo-therapy technique whereas the control group was placed on a placebo activity. After the period of six weeks which the training lasted, the two groups were post-tested using a reshuffled social anxiety disorder reduction assessment rating scale and the Basic Health Education Test on Mental Health adopted from the standardized and has been approved overtime. The Basic Health Education questions have 40 questions, and each question attracts 2.5 point. For the 40 questions, a correctly answered question attracts 2.5 marks and in total 100% which is the highest score any respondent could achieve. The post-test was to determine whether there was any improvement on reducing social anxiety disorder in students and promoting health and well-being based on logo-therapy technique used by the therapist.

The students in the experimental group A and B were named respondents in this study. The respondents were selected from JSS2. This group was chosen because of the influence the findings of this study would have in their preparation for junior secondary certificate examination (WAEC). Four social anxiety disorders of students were addressed: fear, aggressiveness, inferiority complex and inactivity in the classroom. These four social anxiety disorders were addressed using logo-therapy technique by the researcher who would be referred to, in the treatment as therapist. Data were analyzed using mean, standard deviation and Analysis of Variance statistic.



Results

Table1: Pretest and Post-test Mean Social Anxiety Disorder Reduction Mean Score Difference in the reduction of social anxiety disorder of students exposed to logo-therapy method and control at post-test

Groups	N	Pre-test Mean	SD	Post-test Mean	SD	Mean Reduction Scores	Mean Difference
Experimental Group (SST)	27	79.93	3.73	38.56	3.38	41.37	34.28
Control Group	21	79.62	3.63		3.90	7.09	

The result in Table 1 reveals the pretest scores post-test mean scores and standard deviation at pre-test and pot-test of social anxiety disorder students exposed to logo-therapy technique and control group. Respondents had a mean score of 79.93 at pre-test a standard deviation of 3.73. At post-test, respondents had a mean score of 38.56 and standard deviation of 3.38, the mean score at post-test show reduction in social anxiety disorder men score of respondents exposed to logo-therapy technique. A standard deviation of 3.38 show a wide range between the scores obtained by respondents at post-test. The data indicates that students in treatment group reduced more in their social anxiety disorder than those in control group who were exposed to instruction using conventional method of teaching.

Table 2 Analysis of Covariance on Social Anxiety Disorder Reduction Mean Scores and Standard Deviation of students based on exposure to logo-therapy and control at post-test.

Source	Sum of squares	Df	Mean squares	F	Sig
Corrected Mean	561.076	4	140.269	5.392	.001
Intercept	425.589	1	425.589	16.360	.000
Pre-test SAD	120.554	1	120.554	4.634	.037
Treatment	424.077	1	424.077	16.302	.000
Gender	1.719	1	1.719	.066	.798
Treatment Gender	13.734	1	13.734	.528	.471
Error	1118.591	43	26.014		
Total	33920.000	48			
Corrected total	1679.667	47			

Table 2 indicated that logo-therapy as a factor in the study had a significant effect on social anxiety disorder mean scores of students with social anxiety disorder. Reason is that calculated f-value of 16.302 in regard of the treatment as main effect of logo-therapy on mean rate of reduction of social anxiety disorder score was higher. This means that the null hypothesis of no significant effect of logo-therapy on social anxiety reduction was rejected. This implies that



exposing students with social anxiety disorder to logo-therapy significantly reduced social anxiety disorder of junior secondary students.

Table 3: Pre-test/Post-Test Mean Scores and Standard Deviation of Social Anxiety Reduction of Student Exposed to Logo-Therapy Based on Gender

Gender	N	Pretest Mean	SD	Posttest Mean	Sd	Mean reduction scores	Mean reduction differences
Male	27	79.52	3.85	45.83	5.57	33.69	47
Female	21	80.21	3.38	46.05	6.70	34.16	

Results in Table 3 show the pre-test and the post-test mean social anxiety reduction mean scores and corresponding standard deviation values for males and females. Males had a pre-test social anxiety mean score of 79.52 and a standard deviation of 3.85 with post-test social anxiety mean score of 45.83 and a standard deviation of 5.57. The mean test social anxiety difference score was 33.69. Females had a pre-test social anxiety mean score of 80.21 and a standard deviation of 3.38 with a post-test social anxiety mean score of 46.05 and a standard deviations of 6.70, resulting to mean difference score of 34.16. These results implied that males differ in their mean social anxiety disorder scores from females. Their higher social mean point reduction in social anxiety score tends to show that they seem to have benefited more from the treatment than females. This can be seen from a very slight mean reduction difference of 0.47 in favour of female participants.

Results presented in Table 2 do not show a significant difference in mean post-test social anxiety disorder reduction mean scores of male and female participants exposed to logo-therapy. This is indicated by calculated f-value of 0.066 which is less than F-critical value of 1.96 with degree of freedom of 4 and 43 at 0.05 level of no significance. The null hypothesis of no significance difference in social anxiety disorder reduction mean scores of students as measured by their scores in social anxiety disorder reduction scale is upheld. The implication is that gender had no significant difference on social anxiety disorder reduction o2 participants with social anxiety disorders exposed to logo-therapy.

Discussion

This result reveals that logo-therapy technique improved behaviours common with social anxiety disorder in students such as fear, depression, and inferiority complex aggressiveness. However, students were encouraged to develop individual strength, have adequate expectations, set goals through which to achieve goals set. The student were encouraged to develop friendships with a wide variety of other students and accept individual differences, reducing the impact of partaking in physical activities. Those who were involved in drugs were isolate or frowned at but were shown love and gradual correction of the mis-information that directs them into such behavior which would bring the desired change. The reason for this result could be linked to the desirable technique of logo-therapy where everyone is involved in correcting unacceptable behaviours through regular evaluation and feedback.



The finding of the study showed that using logo-therapy technique significantly reduced social anxiety disorder of students with social anxiety disorder. This is of the fact that students with social anxiety disorder exposed to training using logo-therapy technique had higher social anxiety disorder reduction mean score than those in the control group. This is in agreement with the earlier research finding of Shima and Hassan (2016) on effectiveness of logo-therapy to reduce stress and increase happiness in women with Breast Cancer Rash City Iran. The result showed that logo-therapy led to increased happiness and reduced perceived stress in the women in the experimental Tehran Iran. The finding of study is also in line with the findings of Mohammed (2016) on the efficacy of group logo-therapy on reducing depression among people addicted to drugs in Tehran Iran. The finding of the study revealed that logo-therapy was effective in improving students' total health. The effectiveness of the use of logo-therapy in this study is based on active participation of the students during the programme.

Findings of this study showed that gender as a factor in the study had no significant influence on social anxiety disorder. This indicated that both male and female students with social anxiety disorder exposed to logo-therapy gained uniformly. The findings of the study disagree with the findings of the study by Robatmili et al. (2015) on gender difference of depressed patients exposed to logo-therapy in Tehran, Iran. Also the depression level of male students was significantly lower than depression level of female students. The result reveals that gender significantly influenced depression of patients exposed to logo-therapy. The findings of this study equally disagree with the findings of a study conducted by Ademola and Yusuf (2017) on the gender difference of suicidal ideation of patients exposed to logo-therapy education programme in Kwara State. The findings however revealed that there was significant mean difference of male and female students exposed to logo-therapy education programme. Males and females are naturally equal in wellness relationship. The study by Ngwoke and Numonde (2023) nevertheless reported that female patients prefer to participate in a relationship characterized by empathy, after affiliation and affective expressiveness on parts of both participants. It is believed that lack of significant gender difference in the present study may have been as a result of active involvement of all male and female students with social anxiety disorder in logo-therapy training without gender discrimination.

Conclusion

Social anxiety disorder is common among secondary school students and can lead to other many problems in the school environment. The study has shown the effectiveness of logo-therapy in reducing social anxiety disorder among students who are the most challenged. The study revealed how social anxiety disorder students improved in mental health and well-being. Stakeholders in education should however, begin the process of retraining teachers in order to include logo-therapy which in future would amend many challenges affecting students while in school.

Recommendation

1. Logo-therapy technique should be used in school to accommodate the social anxiety disorder students.



2. Health educators and other teachers should be retrained on logo-therapy technique principles so as to use it in their classes for the improvement, promotion of health and well-being of social anxiety disorder students .in Imo State.

References

- Ademola, T., & Yusuf, G. (2017). Examining the gender differences of suicidal ideation patients exposed. Logo-therapy education programme in Kwara. *International Journal of Mental Health*. 4(3), 472-483.
- Amil, S., Moulin, J. A., & Gagnon, E. (2025). Towards a vision of sustainable health: Definitions, related concepts and key dimensions. *Sustainability* 17(12), 5342.doi.org
- Ariyo, A. O. (200) Exercise involvement on the wellness of junior and senior secondary school teachers in Oyo State, Nigeria. *Nigerian Journal of Health Education* 23(1), 374-381
- Cameron, K. A., & Schneider, E.C. (2012). Benefits of evidence based health promotion /disease Prevention programs for older adults and community agencies. *Innovation in Aging*, 2(1), 846.
- Curthbert, B. N. (2012). Social anxiety disorder: Trends and translational research. *Biological Psychiatry*, 51(1), 4-10.
- Fader, S. (2012). *Who responds well to modeling behaviour*
<https://www.betterhelp.com/advice/behaviour>
- Faramarzi, S., & Bavali, F. (2019). The effectiveness of group logo-therapy to improve psychological well-being of mother intellectually disabled children. *International Journal of Developmental other Disabilities*. 63(4),:45-51.
- Geronchek, C.L. (2015). The effect of exercise involvement and training in adolescents who are overweight with intellectual disability: *The role of training frequency Journal of Strength and Conditioning Research*. 25(8), 1.
<https://www.researchgate.net/publication/3016118434benefits&needsofdailyexercise>



- Gilbert, P., & Procter, S. (2006). Compassionate mind training for people with high shame and self-criticism. *Clinical Psychology and Psychotherapy*. 13(6), 353-379.
- Graham, R., & Topham, P. (2012). The impact of social anxiety on student learning and well-being in higher education. *Journal of the Mental Health*, 21(4),375-385.
- Jacquelyn, A. G., Kang, E., & Matthew, D.L (2019). Efficacy of group social skills interventions for youth with autism. Spectrum disorder. *Clinical Psychology* 52, 164-181.
- Kang, K, Jaelm, I. Heesu, K. S., Mi-Kyung, S., Songyom S. (2009). The effect of logo-therapy the suffering, finding meaning and spiritual well-being of adolescents with terminal cancer. *J Korean Accad Child Health Nurse* 15(2), 136-144.
- Kikelomo, C., & Babatunde, A. A. (2020). Effectiveness of field trip and peer tutoring, learning strategies on junior secondary school students achievement in social studies in Osun State, *Nigerian Journal of Educational System*, 4(1), 12-21.
- McGinn, L.K., & Newman, M.G. (2018). Status update on social anxiety disorder. *Int'l Journal of Cognitive Therapy* 6(2,;88-113.
- Mobamad, A. (2016). *The efficacy of group logotherapy on reducing depression among people addicted to drugs*. <https://www.worldscientificnews.com>
- Ngwoke, D.U., & Numonde, D. (2013). Effect of Cognitive restructuring intervention programme as test anxiety of low-achieving students in Nigeria. *Journal of Educational Review* 6(1), 73-80.
- Ogrodinczuk, P., & McCallum, T. (2011). Effect of Patient gender on outcome in taro form of short-term individual psychotherapy. *The Journal of Psychotherapy Practice and Research*. 45(8): 1017-1025.
- Oke, C. (2023). *Deviant behaviour and psycho-social well-being of students in Ekiti State tertiary institutions. Educational psychology and teacher training in Nigeria*. Official Publication of: The Association of Child and Learning Psychologists, 26-34.



- Okechukwu-Omeyer, R. C., Igbokwe, C. C., & Ilo, O. O. (2020). Mental health promotion intervention in Occupational Settings: A review of evidence. *Nigerian Journal of Health Promotion, 13*, . 123-127.
- Onuoha, R. C. *The perceived knowledge of factors associated with malnutrition among children aged zero to five years among mothers in Orlu Local Government Area of Imo State*. A Festschrift in Honour of Professor Mauebibisi Ofo Iwe, 6th, Vice-Chancellor; MOUAU. University of Port Harcourt. Print Press, Nigeria. 346-357.
- Rizwam, W., Inam, A., & Abiodullah, M. (2015). Social phobia and academic achievement of girls at postgraduate level. *IOSR Journal of Humanities and Social Sciences (IOSR-JHSS)*. 20(4), 73-78.
- Robatmili, P., Faramarz, Q., & Hasani, T. (2015). Gender differences of depressed patients exposed to logo-therapy techniques. *International Journal for Advancement of Counseling*. <https://www.ncbi.nih.gov/pmc/articles>.
- Shima, A., & Hassan, T. (2016). A Survey on efficacy of group logo-therapy on loneliness and anxiety of death is elderly people. *International Journal of Medical Research and Health Sciences* 5(75), :7-77.
- Stein, M. B., & Kean, Y.M. (2010). Disability and quality of life in social phobia: Epidemiological findings. *American Journal of Psychiatry, 157*(10), 1606-1613.
- Uroko, J.G. (2021). *Logo-therapy and reduction of Social anxiety disorder for enhancing trust in social relationship among in-school adolescents in Enugu State*. *Emerging Issues in Counselling and education in the 21st Century*. Hysab Prints and Publishers. Imo State, Nigeria.p.64-73.
- Wakjissa, S. G., & Umaru, A. A. (2023). Relationship between mathematics anxiety and mathematics achievement of command secondary school students Plateau State Nigeria. *Educational Psychology and teacher training in Nigeria*. Official Publication of: *The Association of Child and Learning Psychologists*, 140-148
- Williams, T., & Cochrane, R. (2017). *Pharmacotherapy for social anxiety disorder*. New York



City: McGraw-Hill, Publishers.

World Health Organization. (2017). *Mental health: Strengthening our response*.
<http://www.who.int/mediacentre/factsheets/fs220/en/>