African Research Review

An International Multi-disciplinary Journal, Ethiopia Vol. 10(3), Serial No.42, June, 2016: 39-54 ISSN 1994-9057 (Print) ISSN 2070-0083 (Online)

Doi: http://dx.doi.org/10.4314/afrrev.v10i3.3

The Use of Logotherapeutic Techniques in the Identification and Intervention Stages of Treatment with Persons with Substance Use Disorder

Asagba, R. B. [PhD, RD, PGD, CDE, PADEG, Diplomate Clinician in Logotherapy]

Department of Psychology University of Ibadan, Ibadan

Oyo State, Nigeria

E-mail: rbasagba@gmail.com, Phone: +2348023165957

&

Marshall, M. [PhD, RP, Diplomate Clinician in Logotherapy]

Ottawa Institute of Logotherapy

Ottawa, Canada

E-mail: maria.marshall@ltea.ca,

Phone: +16135993299

Abstract

Logotherapy was developed by Viktor Frankl in the 1930s as the Third Viennese School of Psychotherapy (the first is Psychoanalysis by Sigmund Freud and the second is *Individual Psychology* by Alfred Adler). It offers useful

and effective intervention techniques which can be carried out in persons with substance use disorder. This is particularly remarkable in the African context, where long term therapy is not readily feasible due to the polarized nature of the pervading culture. In demonstrating the stance of logotherapy, the paper examined the prevalence of substance use disorder and how it has been conceptualized as a part of the *mass neurotic triad* of modern times. It illustrated logotherapy techniques in a stepwise fashion and highlighted some studies in order to establish the effectiveness of logotherapy in the identification and intervention stages of treatment with persons suffering from substance use disorder.

Key Words: Logotherapy, Substance Use Disorder, Early Identification, Brief Intervention, Nigerian culture

Introduction

The African culture is multi-ethnic and Nigeria is not an exception. As a highly diverse society, Nigerian encompasses diverse ethnic and religious groups. Pelzer (1997), as cited by Asagba (2014), grouped African culture into three categories based on different ideologies/world views and lifestyles. However, despite their different world views, Africans still have common ideologies. For instance, they hardly do anything major without first praying: right from naming ceremonies to the performance of *rites of passage*, marriage, house warming to burial ceremonies. This is one reason that interventions for substance use disorders in African cultures should be spiritually inclusive, not solely biological or psychological treatments, as the majority of current interventions are centered (Kalat, 2001; Niehoff, 1999; Bloon, 1992; Heinz et al, 1998; Marlatta & Condon, 1985; Peel, 2000; Martatt, 2002; Caroll, Rounsaville & Keller, 1991; Prochaska, Narcross & D, Clemente, 1995; Luborsky, 1984; Woody et al 1995).

The Alcoholics Anonymous (AA) has a twelve-step guide to integrate self and others with a higher power and their methods have been supported with empirical findings [Alcoholics Anonymous (2002)]. There are few, if any, other interventions that focus on the spiritual aspect of the patient and the AA concept is hardly practiced in the Nigerian setting. This neglect of patients' holistic needs may portend a limitation of the long term efficacy of interventions. According to the logotherapeutic view, the management of person with substance use

disorders should be holistic and multidisciplinary. Logotherapy is based on the conceptualization of the person as a whole: body, psyche and spirit entity.

The paper briefly examined the prevalence of substance use disorder, the conceptualized framework of logotherapy regarding substance use disorder and techniques for the intervention.

The Prevalence of Substance Use Disorders

All over the world substance use has constituted a major public health problem (UNDO 2010). There has been no reduction in the trend of harmful effects, particularly with alcohol and marijuana, which are the most commonly used substances worldwide. In addition, the use of prescription drugs such as tranquilizers is on the rise (UNDO (2013). The developing countries are not spared from this social menace due to urbanization and globalization. The pattern of the use of substances is alarming, with both rural and urban communities affected (Odejide, et al., 1987; NDLEA, 1992; Adelekan, 1989; Turkson, 1996; Courtois, et al., 2004; Anthony, et al., 2004; Gureje et al., 2007 and Relmet, et al., 2008).

A recent report from the West Africa Commission has demonstrated how narcotic drugs are now accessible at an alarming rate in Nigeria as the country is no longer a transit for drug couriers but is now expanding consumption and production. Therefore, it would be expected that currently there are more individuals with substance use disorder than those cited in the UNDCO data for the year 2013. [Independent 2014 Report]. There should be further studies to ascertain the actual data on the prevalence of substance use in Nigeria.

Several researchers reported a significant inverse relationship between meaning in life and drug abuse (i.e., Shean & Frechtman 1971; Padelford, 1974). Holmes' (1979) findings confirmed that alcoholics were involved in drinking because they wanted to get rid of existential vacuum. Crumbaugh (1980; p.17) believed that "...the causes of alcoholism are complex and debatable but many problem drinkers have adopted the habit as an escape from the realities of a life that lacks meaning and purpose. Thus, the needs of these problem drinkers are those that logotherapy seeks to meet". In 1986, Lukas demonstrated extensively how she had successfully used logotherapy to treat many persons with substance abuse and dependence at her clinic. Asagba (2009)

also gave instances of successful logotherapeutic interventions carried out with individuals with substance use disorders.

Furthermore, data collected from the Purpose in Life (PIL) Test indicated that 25 to 25 percent of people with alcohol problem manifest a major problem of meaninglessness and purposeless in their lives (Crumbaugh & Carr, 1979; Crumbaugh & Maholick, 1964 & 1969. From his findings with persons with substances abuse/dependence disorder, Hutzell (1984) demonstrated that those who underwent logoanalysis were more likely to abstain and live a drugfree life than those who didn't.

Recent findings by Martin, Mackinnon, Johnson and Rohsenow (2011) suggest that increasing *purpose in life* may be an important aspect of treatment among cocaine-dependent patients and increasing of *meaning in life* for smoking cessation (Steger, Mann, Michel & Copper, 2009).

The Theoretical Framework of Understanding Patients with Substance Use Disorders

The definition of logotherapy has been described in Asagba (2002, 2006/7, 2009, & 2014). According to the logotherapy theoretical framework, patients with substance use disorder are suffering from *existential frustration* or *existential vacuum*. Frankl (1988 & 2006) coined these two terms: When someone is suffering from existential frustration, they feel bored, indifferent and perceive no meaning in life. In existential vacuum, the person feels emptiness; lacks goals, purpose or direction; he or she is prone to apathy and dissatisfied with life. These reported symptoms affect not only youths but also adults; the rich and the poor. Frankl (2006) noted that when people have enough to live by but nothing to live for, "they have the means but no meaning".

Asagba (2002, 2009 & 2014) as well as Asagba and Nwagwu (2007) and Asagba and Ifeaka (2007) were of the view that "Nigerians are not spared from this social menace because of long standing years of slavery, colonization and various military regimes coupled with globalization." These factors may have significantly contributed to people feeling frustrated in their search for the meaning in life which is known as existential frustration. In the absence of logotherapeutic intervention, existential frustration may give rise to existential vacuum and the feelings of meaninglessness and inner emptiness may lead to existential neurosis. Frankl (2006 p140) termed depression addiction and

aggression as the mass neurotic triad of our times. Regarding changing social trends, (Asagba, 2002, 2009 & 2014) noted that "...Nigerians have resorted to breaking long-time traditional laws, morals and norms by following Western lifestyles. As a result, people have left rural areas for cities in search of white-collar jobs and politics. After decades of this, Nigerians especially the youths have lost their identities. The questions, "Who am I?" "What am going to become" linger and as such, many have succumbed to addiction."

Confirming this issue, NDLEA (2007) and other empirical research found that substance use has been linked with many social problems such as robbery, violence and other social vices in Nigeria today. The theoretical framework could be illustrated with Ungar's (1997; p. 114) exploration of *existential dynamics* (see Figure 1).

Existential Frustration
Frustration
Frustration
Frustration
Frustration
Fulfillment
Fulfillment
Fulfillment
Fulfillment
Fulfillment
Fulfillment
Fulfillment
Fulfillment

Fig 1: Existential Dynamics

(Source: Ungar, 1997; p. 114. Reproduced with permission from the author.)

Existential-dynamics in logotherapy examines human existence in terms of a correlation between a person's meaning orientation and their existential fulfilment. There is a correlation between obstacles to this meaning-orientation and existential frustration. Many studies have proven that realizing meaning increases one's existential fulfilment, bringing about growth, development and improved quality of life (i.e., Schulenberg & Melton, 2003 & 2010). Lack of meaning in life naturally results in the opposite: it brings about existential frustration and obstacles in growth and development, the quality of life and satisfaction with life (i.e., Melton & Schulenberg 2007, & 2008; Pohlmann, et al., 2006).

Logotherapeutic Techniques in the Intervention with Patients

Logotherapy is based on the principle observation of the human beings These dimensional entity. dimensions as a three are the biological/physiological, the psychological/mental, emotional and the noetic/spiritual areas. It is believed that the first two dimensions are readily taken care of by other professionals since the treatment is a multidisciplinary approach. In the noetic/spiritual dimension, however, lie specifically human capacities including those for self-discovery, self-detachment, realizing our uniqueness, making choices, realizing our responsibility, and capacity for selftranscendence (reaching beyond ourselves toward others/a meaningful task).

We can discover our own selves. This is can be done through the use of the Logotherapeutic method of Socratic Dialogue (Marshall, & Marshall, 2012). The method derives its name from the Greek philosopher Socrates, who used a narrative questioning to help his students discover themselves through discourse. The patient is able to uncover many potentials and challenges when their self-detachment allows them to see themselves objectively from the outside. This allows for the realization that they can make their own choices and they are responsible for these. Individuals can finally become self-transcendent from their usual egocentric state. The logotherapeutic technique enhances four treatment goals:

- (1) Self-distancing from the symptoms;
- (2) Modification of attitudes;
- (3) Reduction of symptoms;

(4) Orientation toward meaningful activities and experiences (Lukas, 1986; Asagba, 2006/2007 & 2009).

The first step helps and allows the patient to detach themselves from the symptoms of substance use disorder and those accompanying feelings of self-doubt, worthlessness, low self-esteem, inferiority and hopelessness. The second step involves helping the patient to see themselves from the objective point of view akin to looking at oneself in a mirror (Where this does not occur, one can supplement the Socratic Dialogue with the use of meaning-oriented questions, logochart, logo-hooks, or the Logo- can hints such as the use of humour or metaphors can be employed].

The third step is the reduction of symptoms. Further Socratic Dialogue can be employed to get the person to see themselves from the objective point of view. The more a patient sees themselves from the objective point of view, the more the symptoms would be reduced. The fourth step is the orientation toward meaningful activities and experience that would reinforce the right mindset.

Logotherapy believes that a patient with a substance use disorder is in crisis. This is because not all people using substances have substance use disorder. It is believed that the person is using substances may resort to them as a coping mechanism, albeit an inefficient one, leading to further intensification of existential distress and potentially leading to despair.

Long's (1997) "Transcendental Crisis Intervention Model" [see the Appendix] can be used to demonstrate the four steps highlighted above. The model emerged from Long's experience of being paralyzed from the shoulders down and the similarities of this experience with those of patients who had gone through many crises including substance use disorder: "By listening to my clients and learning from them, I have developed a model for an expanded crisis-intervention that includes therapy after the crisis has been managed successfully" (Long 1997, p. 104). This model is not only suitable for individuals with substance use disorder but can also be used to manage a variety of crises. For instance, Asagba and Wimberly (2015 & 2015) utilized the model as part of strategies for assisting people who sexually assaulted.

The Long's model is comprised of seven stages. One can explain to the patient what each stage entails and ask them to put themselves in a presented

scenario, indicating where they would place themselves along the seven stages, in the appendix, sketched respectively as below:

Stage One

Stage one in the sketch indicates a normal condition in life, which has its ups and downs (represented by zig-zag lines) and differs from one person to another due to individual uniqueness. Also, as it is with the average population, while some do, many people do not uncover their *meaning of the moment* and *meaning universal*. They are either in search of meaning or have not found meaning.

Stage Two

The second stage is "the onset of the crisis." All three dimensions [biological, psychological and spiritual] are affected and "the person is not exercising the defiant power of the human spirit" (Long, 1997; p.106). Typical symptoms include nihilistic thinking, increased emotional tone, proximal isolation from others, sleep disturbance, deterioration of personal hygiene, change in eating habits and substance abuse to "numb" the pain. A powerful sense of worthlessness and suicidal ideation often begins or is exacerbated. A vicious cycles emerges: hopelessness leads to fear, which increases hopelessness which then becomes clinical depression.

Stage Three

In stage three, there is the movement from the experience of existential vacuum into despair. The suicidal ideation often is transformed into establishing a plan of action. This "emotional and spiritual myopia" (Long, 1997; p.109) presents suicide as the only way out.

Stage Four

This is the *bottoming-out* stage. The patient is more confused than in stage three and cannot make any meaningful choices. In actual fact, there are still choices for them to make but the defiant power of their human spirit is blocked. They see no meaning in their lives.

Stage Five: The fifth stage is where the suicidal ideation has disappeared as well as the immediate crisis. There is a feeling of trust between the patient and

the Health Care Provider with openness and honesty. They are able to works things out in line with a constructive treatment plan.

Stage Six

This is the stage where the patient is returning to their previous level of functioning (pre-crisis level). There is a lot of improvement now.

Stage Seven

The last stage is called *transcending trauma*. The patient is functioning well above the previous level of functioning and attains a higher, "noetically-based" life. Aware of spiritual resources and relying on them the patient now views him or herself as having a meaningful life.

The Use of Techniques for the Stages

There is no logotherapeutic intervention needed in stage one because most people intuitively have their defiant human spirit power to enable them to cope with their life crises. They are able to bounce back when overwhelmed. Their coping mechanisms are constructive and usually helps them to survive. However, Logotherapeutic Transcendental Crisis Intervention is indicated for a person who lacks the ability to actualize such potential intuitively. (As such a person may not see much meaning in life and lacks purposeful direction).

Stage Two

Some people who lack meaning in life in stage one may plunge further into existential vacuum or neurosis. The Socratic Dialogue and Modification of Attitudes (Lukas, 2006; Marshall, & Marshall, 2012) are used in this stage. The Socratic Dialogue helps a lot at this stage because it assists in gathering a lot of information without threatening the patient. The aim here is not to solve problems but allowing the patient to see the reason for living. It "...helps the client climb out of the abyss of despair and see part of life as meaningful and positive so that the client no longer considers suicide as the only option" (Long 1997, p. 109).

Modification of Attitudes used together with the Socratic Dialogue "...not only elicits life-meanings but also helps the client tap into the previously dormant noetic dimension, thereby activating the defiant power of the human spirit....

Thus, the client's sense of regaining some control over life bolsters a more solid feeling of identity and purpose" (Long, 1997; p109.)

Stage Three

Apart from the use of Socratic Dialogue and Modification of Attitudes, the technique called "Dereflection" is added (Frankl, 1984, 1986; Marshall, & Marshall, 2012) thereby, allowing the patient to focus their attention on meaningful activities or personal goals that are yet to be attained. This helps the patient to move on from the immediate pain, shifting more towards a positive alternative than focusing on suicide or hopelessness.

Stage Four

According to Long (1997), stages two and four are the stages where suicide risk is the highest. Therefore, the use of Socratic Dialogue and Modification of Attitudes are the most relevant techniques to be used because they are "...non-directive and non-threatening, these techniques do not shake the client's fragile emotional state" (Long 1997, p110.)

Stage Five

There is the need to continue using the Socratic Dialogue, Modification of Attitudes and Dereflection as in the stage four. The logotherapist builds on the insight gained by assisting the patient to make use of the knowledge acquired during therapy to improve himself or herself some of the goals to be achieved and is establishing a more firm sense of identity, developing a better ability to correctly prioritize life tasks, interaction with others through improving relationships; forming a stronger sense of purpose and direction, improving coping skills, expecting a greater sense of meaning in life and having an enlightened awareness of how to use the defiant power of sprit.

The use of Paradoxical Intention (Frankl, 1984; 1986; Marshall, & Marshall, 2012) as a technique may be added at this stage because the patient is assumed to be able to cope. At the end of this stage, the patient is stabilized and functions well enough to move to stage six.

Stage Six

The patient's self-esteem is not low any longer and they able to express a more positive out-look. The patient has moved from the previous level of functioning and desires skills to move to level higher than their pre-crisis level of functioning. Unlike most other types of therapy, logotherapy does not stop at this level. The aim is to bring the patient to the level higher than his previous level of functioning by guiding the patient to reach stage seven (transcending the trauma). All the above mentioned methods are important here, depending on the need of the patient.

Stage Seven

This stage is relevant for preventing or managing relapse. The therapy sessions can be spaced further and further apart to allow the patient make use of what he or she has learned from the previous sessions. The most often used method at this stage is Modification of Attitudes, although other techniques may be employed where it is necessary. It depends on the patients or the situation. When finally discharged, the client is likely to have a stronger sense of identity, a high meaning-orientation, a distinct sense of purpose and direction enhances coping skills and most importantly a self-transcendent level of being. At this, point, the client has reached the ultimate goal of Logotherapeutic intervention, "...the achievement of self-transcendence and actualization of human essence" (Long 1997; p.111).

Conclusion

The scourge of substance abuse is raging around the world; a reflection of low meaning and purpose in life experienced by many. Logotherapy presents a holistic, multidisciplinary intervention which goes beyond restoring patients to their normal level of functioning. It helps them to reach a higher level of self-transcendence by assisting them to re-discover meaning and orienting themselves to meaningful goals. This approach is ideal for tackling the menace of substance abuse, particularly within the African context. It is recommended as a valuable tool to be employed and to be researched.

References

- Adelekan, M. L. (1989). Self-reported drug use among secondary school students in the Nigerian State of Ogun. *Bulletin on Narcotics*, 41 (1) 109-116.
- Alcoholics Anonymous (2002). Twelve steps and twelve traditions of alcoholics anonymous. New York: A. A World Services.
- The West African Commission on Drugs (2014). An Independent 2014 Report Not just in transit drugs.
- Anthony, J. C., Warner, L., Kessler (2004). Comparative epidemiological dependence on tobacco alcohol, controlled substances and inhalants: Basic findings from the national comorbidity survey. Exp. Clin. in Psychopharmacol. 2, 244-268.
- Asagba, R. B. (2007). Violence in our tertiary institutions and the need for psychological intervention: A Nigerian experience. *Nigerian Journal of Clinical and Counselling Psychology*, 12 (1), 125-140.
- Asagba, R. B. (2009). Logotherapeutic management of persons with substances abuse/dependence in psychology. *Ife PsychologiA. An International Journal of Psychology in Africa*, 17(89), p. 8.
- Asagba, R. B. (2002). Cultural aspects of the logotest. an analysis of inner meaning fulfilment among students of the university of Ibadan. Unpublished PhD Thesis of University of Ibadan, Ibadan Oyo State, Nigeria
- Asagba, R. B. (2014). The importance of logotherapy in african culture. *Ife PsychologiA*. *An International Journal of Psychology in Africa*, 21(3), 378-384.
- Asagba, R. B. & Ifeaka (2007). Correlates and trends of ogogoro alcohol herbs use among traders of Lagos. *Mile Two*, *13* (2), 187-203.
- Asagba, R. B. (2006/7). Logotherapy issues from an African perspective. Ibadan: Ibadan University Press, PLC.
- Asagba, R. B. & Wimberly, C. (2015). Developing a Logotherapeutic model for understanding victims of sexual assault. Paper presented at Twentieth

- World Congress on Viktor Frankl's Logotherapy, June 17-21,2015, Dallas, Texas, USA.
- Asagba, R. B. & Wimberly, C. (2015). Developing logotherapeutic strategies as effective interventions for victims of sexual assault. Paper presented at Twentieth World Congress on Viktor Frankl's Logotherapy, June 17-21,2015, Dallas, Texas, USA.
- Bloom, F. E. (1992). Molecular Genetics and Psychiatry. In Kupfer, D. (Ed). *Reflections on modern psychiatry*. Washington, DC: American Psychiatric Press.
- Caroll, K., Rounsaville, B. & Keller, D. (1991). Relapse prevention strategies for the treatment of cocaine abuse. *American Journal of Drug and Alcohol Abuse*, 17(3), 249-265.
- Courtois, R., Hoge, W., Moussessi, T. & Mullet, E. (2004). Prevalence of alcohol and psychoactive substance consumption in samples French and Congolese high school students. *Tropical Doctor*, 34, 15-17.
- Crumbaugh, J. C. & Carr, G. L. (1979). Treatment of alcoholics with logotherapy intervention. *Journal of the Addictions*, *14*, 847-853.
- Crumbaugh, J. C. & Maholick, L. T. (1968). *Manual of instructions for purpose of life*. Munster, Indiana: Psychometric Affiliates.
- Crumbaugh, J. C. & Maholick, L. T. (196). An experimental study in existentialism; The psychometric approach to Frankl's concept of noogenic neuroses. *Journal of Clinical Psychology*, 20, 200-207.
- Crumbaugh. J. C (1980). Treatment of problem drinkers. *The International Forum for Logotherapy, No* I, Spring.
- Frankl, V. E. (1984). *Man's search for meaning*. New York: Simon and Schuster.
- Frankl, V. E. (1986). The doctor and the soul. New York; Random House.
- Frankl, V. E. (1988). The will to meaning. Foundations and applications of logotherapy (Expanded Edition). A Meridian Book: New American Library, USA.

- Frankl, V. E. (2006). *Man's search for meaning*. (Expanded and Revised Edition). Beacon Press: Boston, USA.
- Gureje, J. O., Degehard, L., Olley, B., Uwakwe, R., Udofia, O., Waki, A., Adeyemi, A., Bohnert, K. & Anthony J. (2007) A descriptive epidemiology of substance use and substance use disorders in Nigeria during the early 21st century. *Drug & Alcohol Dependence*, 91(1) 1-9.
- Heinz, H., Ragan, P., Jones, D. W., Hommer, D., Williams, W., Knable, M. B., Gorey, J. G., Dotty, L., Geyer, C., Lee, K. S., Coppola, R., Meinberger, D. R. & Linoila, M. (1998). Reduced central serotonin transporters in alcoholism. *American Journal of Psychiatry*, 155,1544-1549.
- Holmes, S. F. (1997). Alcholics. In Fabry, J., Bulka, R. & Sahakian, W. [Eds.] *Logotherapy in action*. N.Y., Jason Aronson.
- Hutzell, R. R. (1964). Logoanalysis for alcoholics. *The International Forum for Logotherapy*, 7[1], 40-45.
- Kalat, J. (2001). Biological psychology. Toronto ON: Addison-Wesley.
- Long, J. C. (1994). Logotherapeutic transcendental crisis intervention. *The International Forum for Logotherapy*, 20(2), 104-112.
- Luborsky, L. (1984). Principles of psychoanalytic psychotherapy: A manual for supportive- expressive (SE) treatment. New York: Basic Books.
- Lukas, E (2006). Meaningful living; A logotherapy guide to health. New York: An Institute of Logotherapy Press Book, Grove Press, Inc.
- Marlatt, G. A. & Gordon, J. R. (Eds.) (1985). Relapse prevention: Maintenance strategies in the treatment of addictive behaviours. New York: Guildford Press.
- Marlatt, G. A. (2002). Substance abuse treatment and stages of change. *Addition* 97, 607-608.
- Marshall, M. & Marshall, E. (2012). Logotherapy revisited. Review of the tenets of Viktor E. Frankl's Logotherapy. Ottawa, Canada: Ottawa Institute of Logotherapy Press.

- Martin, R. A., Mackinnon, S., Johnson, J. & Rohsenow, D. J. (2011). Purpose in life predicts treatment outcome among adult cocaine abusers in treatment. *Journal of Substance Abuse Treatment*, 40, 163-188.
- Melton, A. M. A. & Schulenberg, S. E. (2007). On the relationship between meaning in life and boredom proneness: Examining a logotherapy postulate. *Psychological Reports* 101, 1016-1022 dol. 10.1080/PRO.101.7-1016-1022.
- Melton, A. M. A. & Schulenberg S. E. (2008). On the measurement of meaning: Logotherapy's empirical contributions to humanistic psychology. *The Humanistic Psychologist*, 36.33-44 doi:1089-08873260701828870.
- National Drug Law Enforcement Agency (1992). *Drug abuse data collection*. Lagos, Counselling Unity NDLEA.
- National Drug Law Enforcement Agency (2007). National Drug Law Enforcement Agency Report (2007). Lagos: NDLEA.
- Niehoff, D. (1999). The biology of violence. Toronto, ON: Prentice-Hall.
- Odejide, A. O., Ohaeri, J. U., Adelekan, M. L., & Ikuesan, B. A. (1987). Drinking behaviour and social change among youths in Nigeria. A study of two cities. *Drug and Alcohol Dependence*, 20, 227-233.
- Ohaeri, J. U., & Odejide A. O. (1993). Admissions for drug and alcohol related problems in Nigerian psychiatric care facilities in one year. *Drug & Alcohol Dependence*, 31, 101-109.
- Padelford, B. L. (1974). Relationship between drug involvement and purpose in life. *Journal of Clinical Psychology*, 30, 203-305.
- Peel, S. (2000). *The meaning of addiction*. Retrieved January 25, 2002 from http://www.peel.net/lib/moal.html
- Pohlmann, K., Gross, B., & Jorascky, P. (2006). Structural properties of personal meaning systems: A new approach to measuring meaning in life. *Journal of Positive Psychology*, 1, 109-117 dol:10-1080/17439760600566008.
- Prochaska, J. O., Norcross, J., & Di Clemente, C. (1995). Changing for good. New York: Avon.

- Relm, J., Room, R., Monteiro, M., Gmel, G., Graham, K., Rehn, A. et. Al. (2004). Alcohol use. In Ezza, M. (Ed.) Comparative quantification of health risks; Global and regional burden of diseases attributable to selected major risk factors (pp 759-1109) Geneva: WHO\
- Schulenberg, S. E., & Melton, A. M. (2010). A confirmatory facto-analytic evaluation of the purpose in life test. Preliminary psychometric support for a replicable two-factor model. *Journal of Happiness Studies*.
- Shean, G. D., & Fechtmann, F. (1971). Purpose in life scores of student marijuana users. Journal of clinical psychology, 26,112-113.
- Steger, M. F., Mann, J., Michel, S. P., Copper, T. (2009). Meaning in life, anxiety, depression and general health among smoking cessation patients. *Journal of Psychosomatic Research*, 67, 353-358.
- Turkson, S. N. A., Obeng-Bekoe, O., & Asamoah, V. (1996). A Clinical sign for persistent harmful cannabis abuse; A pilot study. *East African Med. Journal*, 73 (2) 137-139.
- Ungar, M. (1997). A four step model of logotherapy. *International Forum for Logotherapy*, 113-119.
- United Nation Office on Drug Control and Crime (2010). 2010 World Report. Vienna UNODC.
- United National Office on Drug Cocaine and Crime (2012). 2013 World Report. Vienna UNDODC.
- Woody, G. E, Mclellan, A. T. Luborsky, L., O'Brien, C. P. (1995). Psychotherapy in community methadone programs; A validation study. *American Journal of Psychiatry*, 152 (9), 1302-1308.