EFFICACY OF LOGOTHERAPEUTIC APPROACH IN MANAGING SUBSTANCE ABUSE AMONG SECONDARY SCHOOL STUDENTS IN BORNO STATE, NIGERIA.

BY

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AHMADU BELLO UNIVERSITY, ZARIA
NIGERIA

DECEMBER, 2015

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DECEMBER, 2015

DECLARATION

I declare that this Thesis entitled 'Efficacy of Logotherapeutic Approach in Managing Substance Abuse among Secondary School Students in Borno State' was conducted by me in the Department of Educational Psychology and Counseling, Ahmadu Bello University, Zaria under the supervision of Prof. Khadijah Mahmoud, Prof. E. F. Adeniyi and Dr I. A. Mohammed.

The information derived from the literatures has been duly acknowledged in the work and properly referenced. No part of this Thesishas previously been presented for another degree in any University.

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CERTIFICATION

ThisThesis entitled ‘‘Efficacy of Logotherapeutic Approach in Managing Substance Abuse among Secondary School Students in Borno State’ by Mercy B. Wakawa, meets the regulations governing the award of the degree of Doctor of Philosophy (Psychology) of Ahmadu University, Zaria and it has been approved for its contribution to knowledge and literary presentation.

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DEDICATION

To the memory of my late father Mallam Wajiri Kadala Nggasam and my mother, Jija Ngwazi whose exemplary lives made me who i am.

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LIST OF ABBREVIATIONS

Abbreviation Full Meaning

ACMD ---------- Advisory Committee on Misuse of Drugs

AIDS - ---------- Acquired Immune Deficiency Syndrome

SAC ----------Substance abuse Checklist

SAQ –---------- -Substance abuse Questionnaire

APA ---------- American Psychiatric Association

APA - ---------- American Psychological Association

BAC - ----------Basal Alcohol Calorie

BAT----------British American Tobacco

CDC - ---------- Center for Disease Control

CNS - ----------Central Nervous System

CVD –---------- Cardio-Vascular Disease

DSM – ----------Diagnostic and Statistic Manual

EEG –---------- Electroencephalogram

FAS – ----------Fetal Alcohol Syndrome

GABA – ----------Gama-Amino-Butyric Acid

GSR –---------- Galvanic Skin Response

HIV – ----------Human Immune Virus

MOE – ----------Ministry of Education

nAchRs – ----------Nicotinic Acetylcholine Receptors

NDLEA –---------- National Drug Law and Enforcement Agency

NIAAA –----------National Institute on Alcohol Abuse and Alcoholism

NIDA –---------- National Institute of Drug Abuse

NCHS – ----------National Center for Health Statistic

OTC –----------Over the Counter

SS – ----------Secondary School

SUD----------Substance abuse

SUMHSA –---------- Substance Use and Mental Health Services Administration

U S –---------- United States

THC ----------Tetra- hydrocannabinol

VTA – ----------Ventral Targemental Area

WHO –----------World Health Organization

OPERATIONAL DEFINITION OF TERMS

Logotherapy: This is a type of psychotherapy that believes in freedom of choice and man's innate ability to rise above all circumstances that may circumvent him by looking at clients' role in the healing process and by encouraging positive attitude toward challenges of life. It emphasizes that freedom is what cannot be taken from man in spite of all odds and that whatever circumstances that one finds himself in, he chose to, so he can also choose to quit if guided adequately. The techniques employed are: Modification of attitude and Socratic dialogue techniques.

Modification of AttitudeTechnique: This is a technique of logotherapy that encourages clients to restructure their cognition positivelytowards any maladaptive behaviour**.** It is used in this respect to manage substance abuse.

Socratic DialogueTechnique: This is a Logotherateutic techniquethat utilizes discussion and skillful questioning methods by therapist leading clients to realization that answers coming from them serve as word solutions to their problems.

Substance Abuse: Thisrefers to the repeated or maladaptive use of marijuana, nicotine/tobacco, and *burkhutu* by students of secondary schools in Borno state to alter their body functioning.

Burkhutu: This is a type of local wine processed from fermented corn and use for festivities and other social gatherings among the *Bura, Chibok* and *Marghi* people of southern part of Borno. *Burkhutu* is a central nervous system depressant especially when consumed in a large quantity.

ABSTRACT

1. *Logotherapeutic Approach in Managing Substance Abuse among Secondary School Students in Borno State'. Seven objectives and seven null hypotheses were formulated. The objectives of the study include: to determine the efficacy of Modification of Attitude Technique of Logotherapy on subjects in experimental group one before and after treatment and to determine the efficacy of Socraic Dialogue Technique of Logotherapy on subjects in experimental group two before and after treatment among others. Other objectives were to find efficacy of Modification of Attitude and Socraic Dialogue Techniques on the levels of Substance abuse, to find differences in post test scores of subjects exposed to treatment by Modification of Attitude and Socraic Dialogue Techniques and to determine the efficacy of the two techniques on male and female. Some of the null hypotheses were: there is no significant effect of Modification of Attitude Technique of Logotherapy on subjects in experimental group one before and after treatment, there is no significant effect of Socraic Dialogue Technique of Logotherapy on subjects in experimental group two before and after treatment. Other hypotheses sought to find significant effects of Modification of Attitude and Socraic Dialogue Techniques based on levels of substance abuse and gender. The study was conducted using quasi experimental pre -test post-test group design. The population of the study was all secondary school 2 students in Biu Educational Zone who were involved in substance abuse. Thus, 483 students drawn by the use of Substance Abuse Checklist (SAC) from 12 secondary schools constituted the population of the study. Two secondary schools were selected based on percentage of students that were involved in substance abuse as experimental school one and experimental school two on which a different technique of Logotherapy was administered on 12 subjects each selected randomly from those involved in substance abuse. The*

schools were purposively assigned to experimental groups. A twenty one item questionnaire that is Substance Abuse questionnaire (SAQ) adapted from a guideline provided by the Centre for Substance Abuse Treatment on a five point likert scale was used for both pre-test and post-test exercises. The hypotheses were tested using t-test and Analysis of Variance at 0.05 level of significance. The major findings revealed that there was significant effect of modification of Attitude and Socratic Dialogue techniques of Logotherapy on mild and moderate levels of substance abuse behavior (F-52.053, P-0.000), Subjects exposed to socratic Dialoloque technique of Logotherapy had reduced substance abuse behavior after the post-test exercise compared to the pre-test result (t=4.245, P=0.001). There was no significant gender difference among subjects exposed to treatment by modification of Attitude technique of Logotherapy (t=0.062, p=0.095). School administrators and all teachers in secondary schools should be encouraged to learn and use Logotherapeutic techniques of Modfication of Attitude and Socratic Dialogue techniques to managesubstance abuse in the schools and the society at large.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The history of Bura, Chibok and Marghi ofsouthern Borno has shown that they always resorted to substances of various types to cure, treat and manage diseases, sadness, and bizarre behaviours and relieve tensions and everyday stresses. According to Abadinsky(2008), man generally has always explored herbs, leaves, roots and barks of trees to cure illnesses relieve tension and improve his moods. Man has always sought solutions to his health problems from substances irrespective of culture and tradition. This shows that any attempt to rid the society of substance use may almost be impossible.

For one reason, substances are meant to bring relief from either psychological or physiological imbalance of the body systems especially when recommended by medical professionerand used according to prescriptions. When substances are used for the mentioned purposes, they save lives but when use becomes maladaptive, it leads to misery and destroys lives. Studies showed that the World is so dynamic that things keep evolving faster than the youths can keep pace with. New things and ways of life are changing almost every day, new approach to life, business and academics are increasingly taking new dimensions so much that those who could not keep pace, particularly the youths are sometimes frustrated and have turned to substances as a solution (Adeboye, 2014). The magnanimity of the problem caused under the influence of substance abuse especially in Borno state has attracted the attention of parents, teachers, medical personals, psychologists, social workers, school managers, researchers and the society at large who have sought solutions to this problem in multifarious ways with little success. Sambo (2002) buttresses this when he states that all aspects of life are

ever changing; the changes are often too rapid and terribly accelerated, which may be very difficult to cope with hence involvement into substance Abuse.

The wish that people live the ideal self or live like the other has plunged man into using substances indiscriminately.Burns (1981) cited in Bagudu (2008) states that there are extended choice and movement closer to achieving full human potentials; there are enormous opportunities for people to succeed according to their wishes. However, man will alwaysidentify differences between self and others, between one situation and another and among happenings no matter how insignificant they may be. These differences according to Bagudu (2008) may constitute a form of deviance such as substance abuse.

Substance abuse has significant physical and psychological effects on health, academic performance and achievement generally and it is said to be a major factor in students' academic failure and general ill health (Ackummey, 2003) in (Abadinsky, 2008). He further reiterates that substance abuse has effects on psychological and physical health of the individual and this has implications on the academic performance of students and socio-economic development of any nation. He attributed the following disorders to substance use; memory loss, depression, hallucination, enhanced sexual drive, loss of contact with reality, fatigue, aches and liver cirrhosis. He further stated that problems like broken homes, absenteeism from work, unemployment, road accidents and criminal behaviours have been associated with substance abuse. Substance abuse is a major forerunner of personal and emotional problems of students, parents, school managers, teachers and the society at large. It is detrimental to both the user and those around him/her. Whenever a student is involved in substance abuse, either in the home or in the school, the manifestation affects the society at large. Udo (1982) posits that teachers in secondary schools have observed with dismay and regret the nonchalant

attitude of some students toward their studies. According to him, some of them do not come to school regularly and some others when they come do not stay in the class for their lessons as most of them prefer to stay in their hide outs where they carry out nefarious activities such as smoking and taking alcohols. Interactions with teachers in area during the period of study shows that teachers in secondary schools in Borno state face a lot of difficulties in discharging their duties of teaching particularly as a result of activities of students who are under the influence of substance abuse. These problems render the school atmospheres uncomfortable for both staff and students.

Despite all efforts by various Nigerian tiers of government and National Drug Law Enforcement Agency (NDLEA) to stem the tides of substance use in the country, there is still consistent rapid rise in number of drug and substance misuse cases especially among young adolescents (Oshikoya and Alli, 2006).

The prevalence of substance abuse in secondary schools particularly in Borno state as evident in pages of newspapers, especially now that the state is facing very severe security challenges which has attracted attention globally. For instance, the commissioner for justice Kaka Shehu states that undoubtedly, the spate of insurgency and terrorism are linked with indiscriminate use of drugs by the youths (Daily Times, 2013). Interactions with teachers in area during the period of study shows that teachers in secondary schools in Borno state face a lot of difficulties in discharging their duties of teaching particularly as a result of activities of students who are under the influence of substance abuse. These problems render the school atmospheres uncomfortable for both staff and students.

This calls for a drastic measure to put the youths and students under control of substance abuse, because wherever it is prevalent, it robs the users, families, and the

society at large off their happiness that is associated with harmony necessary for social, political and economic stability of any nation.

Jibrin(2014) iterates that although substance abuse is a global issue, the youths are the most affected by the scourge of this menace. It is this deviance that this study intended to minimize through Logotherapeutic approach particularly among the secondary school students in Borno state.Secondary schools are institutions meant to be specialized centers where knowledge is imparted to the learners by trained and experienced body of teachers. It is suppose to be a place where training in character and conduct is done and a place where students will want to stay for as long as they are permitted until they accomplish their educational goals for that level, however the current technological development and globalization has given rise to so many social, academic and psychological problems with which has led to redefinition of the goals of education in order to train youths, particularly at secondary school levels to cope effectively and compete well with their counter parts in any part of the world.

The control of substance use and abuse has been a global issue since the first conference held in shanghai in 1909. The international control in 1912, adopted the International Opium Convention, and continued under the auspices of the League of Nations, Nigeria inclusive (Awogie, 2008). According to him, many corrective measures for substance abuse have been used by parents and school psychologists and Counsellors, governments and the nation at large which includes counseling, withdrawal of privileges, suspension and expulsion from schools, corporal punishments (Handbook of Rules and Regulations guiding behaviour in secondary schools). Because of the disastrous nature of its consequences, many nations have promulgated laws to eradicate the malaise of substance abuse but the results reveal minimal success. For instance, as far back as 2000 B.C., an Egyptian priest attempted to prosecute alcohol users, suggesting that they be

degraded like beasts. In the 17th century, a prince in England paid money to denounce coffee drinkers, and the Russian Tsar ordered the execution of those found to possess tobacco (after torturing them into divulging their suppliers.) A similar penalty was levied by the Sultan Ottoman Empire (Grilly, 2002). Nigeria is not left out on the fight against substance abuse, for instance substances worth millions of naira is confiscated every year and offenders sent to prisons. For instance, between January and May 2014, the Kaduna Command arrested 210 drug suspects of which five of them were women. These were investigated and sent to prisons (Jibrin, 2014).

Unfortunately, substance use did not decline in most cases and one fundamental reason for this according to Grilly (2002) is that it is not clear to most users why they must stop using such substances, since they feel that consumption affects only them. This is strengthened by a study conducted by Mahmoud (2007), it was found out that most favourable style of conflict resolution between parents and their adolescents children was correction, the ability of the parties to understand each other. Any therapy that would be used therefore must be one that will help clients to understand themselves, the therapists and the negative consequences of the behaviour in question, a therapy that will teach users the negative consequences of substance abuse, the inherent power within every individual and the freedom to choose to be free from its dangers, hence the use of Logotherapeutic approach as management technique for substance abuse in this study.

Logotherapy is a psychological principle of exposing clients' problems and potentials to them and assisting them to find meaning and exert control over their lives. It is based on the principle that all human beings have the ability to objectively construct meaning and develop new perceptions to situations they find themselves. Logotherapy is use on all types of behaviour disorders to help the psychologically, physically and

emotionally disturbed individuals find meanings in their existence and derive positive lessons even in their sufferings (Henrion, 2002).

Logotherapy emphasizes that finding meaning in one's life is the primary motivational force in man. It helps the disturbed or neurotic individual to understand how all the pieces of his/her life fits together to minimize stress, consequently preparing the person to live a more fulfilled life even in the face of difficulties. The emphasis in logotherapy is that man has innate potential to rise as an actor/ actress, and creator of his/her own life; to develop a unique life style that is the expression of his goal in life (Frankl, Ud) in (Lukas,1996) .

It helps clients address themselves in contemporary life situations such as substance abuse and encourage them to see that change is possible if they so desire to. There are some techniques or strategies of logotherapy that are used to modify different behaviour disorders such as anxiety disorders, phobia, depression, truancy, and substance abuses among others. These principles of logotherapy are: De-reflection, paradoxical intention, modification of attitude, Socratic Dialogue, logo-drama among others. Modification of attitude and Socratic dialogue are particularly the two technniques to be used by the researcher in managing substance abuse among secondary school students in Borno state in this study.

Modification of attitude is a technique that aims at changing one's positive perception toward undesirable behaviour to negative one. In this study, substance abuse is the undesirable behaviour. It is believed that when clients are aware of their behaviours and the potentials inherent in them, they will change positively.

Socratic Dialogue is another technique that employ the use of clients own words in therapeutic relationship as a method of self-discovery. The therapists engage the

clients in leading questions or discussions, paying attention to client's responses. The responses coming from the clients will be used as word solutions to their own problems. This creates confidence in the clients who understand that the ability to change positively lies right in them and provides room for personal transformation. These techniques allow clients to fully comprehend their challenges and desire willingly to change. When decision to change comes from the clients, change becomes effective and sustained. Therefore the use of logotherapy techniques of modification of attitude and Socratic dialogue on substance abuse of students is the thrust of this study.

1.2 Statement of the Problem.

Substance Abuse has for years been a prevailing problem among Nigerian youths, particularly among secondary schools in Borno State. Many studies have been conducted to look into the nature, causes, effects and how to control it. For instance, studies by Ashikoya (2006), Afolayan et al (2010), and Eneh et al (2004) among others. It is one of the most disturbing health related problems among students in contemporary Nigeria. Substance abuse is increasingly becoming a matter of concern to parents, teachers, schools and the society at large. This problem is increasing dramatically in secondary schools in Borno State particularly southern part of the state. The evidences of the prevalence are seen in the number of school aged youths that are involved in gang robbery, in terrorism and insurgency, truancy, examination mal-practices, destruction of lives and property. The current closure of most secondary schools and abduction of women, specifically the Chibok girls on 18th April 2013 by terrorist known as 'Boko Haram' in the area of study shows that these cimes were perpetuated by youths under the influence of substance use as stated by (Shehu, 2013).

Observations show that a significant number of secondary school students are found as inmates in remand homes in Biu for crimesranging from theft to murder all perpetrated under the influence of substances. An interview by the researcher with the subjects under study shows that quite a number of them started taking substances in SS1 and some even earlier.

Students in the area of study display repetitive and persistent pattern of behaviours that results in significant disruption and impairment of academic, social and emotional functioning of their teachers and other students in their environments.Oral report through interaction with teachers in the area of study reported that many students absent themselves from classrooms and many come to school intoxicated or under the influence of substances. Teachers and innocent citizens are being waylaid and threatened by youths of secondary school age operating under the influence of substances. These make discipline very difficult, and teachers spend greater parts of their times dealing with disciplinary problems in the school instead of imparting the desired knowledge to them. The increasing level of substance abuse in secondary schools in the area of study have led to many teachers losing their lives as a result of attacks from such students and many have given up the jobs of teaching for other jobs. For instance, an Islamic leader and a lecturer in College of Education, Waka-Biu was short dead in his house by the insurgents who were later apprehended and admitted that they acted under the influence of strong substances (Primary source). Another lecturer, in mathematics department,College of Education Waka-Biu, (name withheld) narrowly escaped death from the hands of the insurgents whom he described as young boys of secondary school age when they attacked him in his office. These incidences led to many lecturers fleeing their stations and some never returned to their stations till date. Even those who remained in the profession live their lives in perpetual fear and can hardly discipline any student.

An N.C.E.1 student of College of Education Waka-Biu (name with held) was caught in examination malpractice and threatened to deal with the Lecturer that caught him. A probe into the student‘s conduct revealed that he was under the influence of substance which he said he started taking in secondary school (College of Education Waka-Biu, Disciplinary Committee Report, 2014). Many students organize gangs and parade the streets of most towns during school hours and absent themselves from classes. This creates problems of examination mal-practices and assaults to teachers who refuse to comply to give them pass marks regardless of their poor performances. Such acts make teaching and the goal of training the students to have sound bases for University education and other tertiary institutions, communicate effectively, participate and contribute meaningfully to the life of the society where they belong unattainable.

Parents, teachers, school managers, curriculum planners, policy makers, non-governmental agencies, social workers, medical practitioners among others are worried about this ugly situation. As all efforts to curb substance abuse remain a mirage. This scenario has necessitated this study to use the techniques of Logotherapy in managing substance abuse among secondary school students in Borno State.

The handbook of rules and regulation guiding behaviours of students in secondary school in Borno state showed that many types of psychotherapies have been used over the years to manage students’ behavioural problems like substance abuse,such as aversion technique (punishment), token economy, restitution among others; Logotherapy has not been used in the area of study. It is this gap the researcher intends to fill by the use of Logotherapy approach to manage substance abuse among secondary school students in Borno state in this study.

1.3 Objectives of the Study

The objectivesof this study are:

1. to determine the efficacy of Modification of Attitude technique on subjects before and after treatment.
2. to determine the efficacy of Socratic Dialogue technique on subjects before and after treatment.
3. To assess the efficacy ofModification of Attitude technique of Logotherapy on the three levels of substance abuse.
4. To assess the efficacy of Socratic Dialogue technique of Logotherapy on the three levels of substance use.
5. To find out the efficacy of Modification of Attitude technique of Logotherapy on male and female.
6. To find out the efficacy of Socratic Dialogue technique of Logotherapy on male and female.
7. To find differences in post test scores of subjects in the two experimental groups (Modification of Attitude and Socratic Dialogue techniques of Logotherapy).

1.4. Research Questions

To guide the researcher in generating data for this study, the following research questions were asked and answered:

1. What is the efficacy of Modification of Attitude technique of Logotherapy on subjects in experimental group one before and after treatment?
2. What is the efficacy of Socratic Dialogue technique of Logotherapy on subjects in experimental group two before and after treatment?

3. What is the efficacy of Modification ofAttitude technique of Logotherapy on the the three levels of substance abuse?
4. What is the efficacy of Socratic Dialogue technique of Logotherapy on the three levels of substance abuse?
5. What is the efficacy of Modification ofAttitude technique of Logotherapy on male and female?
6. What is the efficacy of Socratic Dialogue technique of Logotherapy on male and female?
7. What are the differences in post test scores of subjects in the two experimental groups (Modification of Attitude and Socratic Dialogue techniques of Logotherapy).

1.5. Hypotheses

In this study, the following null hypotheses were tested:

1. There is no significant effect of Modification of Attitudetechnique of Logotherapy on subjects in experimental group one before and after treatment.
2. There is no significant effect of Socratic Dialogue technique of Logotherapy on subjectsin experimental group two before and after treatment.
3. There is no significant effect of Modification of Attitude technique of Logotherapy on the three levels of substance abuse (mild, moderate and severe).

4. There is no significant effect of Socratic Dialogue technique of Logotherapy on the three levels of substance abuse (mild, moderate and severe).
5. There is no significant effect of Modification of Attitude technique of Logotherapy on male and female.
6. There is no significant effect of Socratic Dialogue technique of Logotherapy on male and female.
7. There is no significant difference in post test scores of subjects exposed to treatment by Modification of Attitude and Socratic Dialogue techniques of Logotherapy.

1.6. Basic Assumptions

This study will be carried out based on the following assumptions:

1. Modification of Attitude technique of Logotherapy would have effect on subjects in experimental group one.
2. Socratic Dialogue technique of Logotherapy would have effect on subjects in experimental group two.
3. Modification of Attitude technique of Logotherapy would have differential effect on the three levels of substance use (mild, moderate and severe).
4. Socratic Dialogue technique would have differential effect on the three levels of substance abuse (mild, moderate and severe).
5. Modification of Attitude technique of Logotherapy would have effect on male and female.
6. Socratic Dialogue technique would have effect on male and female.

7. There would be differences in post test scores of subjects exposed to treatment by Modification of Attitude and Socratic Dialogue techniques of Logotherapy.

1.7. Significance of the Study

The danger of the current trend in substance abuse among students of secondary schools in the area of study is untold on the youths and on the social and emotional lives of the people generally. This study therefore is significant as it introduced the use of relatively different approach in managingsubstance abuse in the area of study. The study is significant to parents who would be taught thesetechniques through Teachers-parents interaction sessions or Parents-Teachers-Association meetings. This would be useful because parents would work on the substance use behaviours of their children at homes to compliment the efforts of the teachers in schools.

This study would also be significant to teachers because with the knowledge of these treatment techniques, they would be equipped with the skills to manage their schools and classrooms more effectively as regard substance abuse. The results of this finding would be presented to them through workshops, school meetings and other teachers' fora. This study is significant to the students, who are involved in substance abuse and those who suffer the consequences of the behaviour of the users. The students after being exposed to the concept of substance abuse, the causes and their implications, and after exposing them to the fact that they have potential within them to change and become the type of person they want to be, would transfer this knowledge to their fellow friends and other students in similar conditions. The findings would also be presented to students through workshops, public lectures, during clubs and societies, during assemblies and other social gatherings.

The Non-governmental organizations would also benefit from this study. These are organizations that have been trying everything possible within their means to eliminate or reduce substance abuse from the society. The results of this study would be published in journals, newspapers, and online for wider accessibility.

The school managers would also benefit from this study, as they read the published work of the study or through teachers' workshops and seminars where these techniques of managing substance abuse would be taught. This study is significant to social workers, medical professionals, policy makers and the society at large. The issue of substance abuse is so disturbing that every concerned group or individual would like to read any published material about it. Where it is possible, public enlightenment campaigns would be staged through televisions, radios and other means of disseminating information. Finally, it would provide empirical information for prospective researchers especially in the Nigerian context.

1.8. Scope and Delimitation.

The scope of this study is the SS2 students of secondary schools in southern part of Borno state who were involved in substance abuse. This is because among the senior classes who are more likely to be involved in substance abuse, this set is the most stable. SS1 are just resuming after the JSS3 examinations and some of them may be coming from different schools and have not adjusted. SS3 would be preparing for SSCE/WASCE and may not have adequate time to go through the experiments.

The study only concentrated on gate way psychoactive and non conventional substances which are marijuana, nicotine/tobacco and *burkhutu*. These are substances that are easily obtainable in shops and kiosks; and seem to have no legal binding over them. They are also cheap to purchase and easy to use.

This study is delimited to two techniques of Logotherapy which are Modification of attitude and Socratic dialogue techniques; the target behaviour is substance abuse among secondary school students in Borno state, this was because the researcher had observed various problems caused by students in secondary schools in the area of study under the influence of substances.

There were two instruments used in this study, these were:

1. The Substance Abuse Checklist (SAC)
2. The Substance Abuese Questionnaire (SAQ)

Both instruments were constructed based on the guidelines provided by 'The Center for Substance Abuse Treatment' and other substance use instruments.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Introduction

The danger associated with substance use, abuse and disorder in our secondary schools and indeed the society cannot be overemphasized. Although few studies have been conducted onsubstance abuse researchers in Borno state, there are numerous studies conducted in Nigeria and the World at large. Because of the hazards to health and negative impacts on the national economy, many psychological therapies have been developed to explain maladaptivesubstance use behaviour, among these therapies is logotherapy. Chapter two presented a review of literature under the following headings:

a. Conceptual framework

- Substance use and Abuse
- Concept of substance abuse
- Psychoactive substances
- Psychoactive substances and the Central Nervous System
- Gateway substances
- Substance abuse in Borno state
- Causes of substance abuse
- Development of substance abuse
- Effects of substance abuse
- Characteristic of one involved in substance abuse
- Types of substances of abuse in secondary schools
- Prevalence of substance abuse among secondary school students
- Concept of psychotherapy
- Concept of logotherapy and its techniques

- Relationship between Logotherapy and substance abuse

b. Theoretical framework

- Theories of substance abuse

c. Empirical studies

d. Summary of the chapter

2.2. Conceptual Framework

Thissection presents the meanings and definitions of important concepts in this study. It discusses the opinions of different researchers related to substance abuse as well as Logotherapy and its techniques.

2.2.1 The Concept of Substance Use and Abuse

From time immemorial, man has exploited every root, twig, leavesand fruits of plants to satisfy hunger and thirst as well as to cure diseases/illnesses and to keep them elated when in low mood. Today, the urged or motivation to achieve happiness, wealth or academic success by whatever means has spread to high level in our societies particularly among secondary school students. The desire to feel good, avoid stress and traumatic experiences, perform highly in academics is so intense that youths who could not ordinarily achieve them resort to substances which they believe will aid them to achieve it.

The history of substance use is as old as man himself and evidences point out that the history of man shows that he has always used substances for one reason or the other, either according to prescription by medical professionals or self prescription, for instance, the native society of Western Hemisphere have utilized, apparently for thousand years, plants containing hallucinogenic substances. The sacred mushrooms of Mexico called ‘God‘s flesh’ by the Aztecs was used very much among them to alter moods (Kazdin, 2012). The history of Bura people of western Borno shows that they use

special types of tree barks known as *hyero, debiro, dikhir, bark of sura* and seeds of some kind of plants known as *Bikurnawa, kwahyakh wiyaku, wadla-wadla* and fermented local drink known and called *burkhutu* to energize themselves, relax when exhausted, heal illnesses and alter or elevate their moods when down (Davies, 1956).

An American sociologist, Bernard Barber, said not only can nearly anything be called drugs/substances but things so called turn out to have an enormous variety of psychological and social functions, not only religious, therapeutic and addictive, but political, aesthetic, ideological and aphrodisiac and so on (Kazdin, 2012). Indeed, this has been the case since the beginning of human society. It seems that always and every where drugs/substances have been involved in every psychological, physical and social functions, just as they are involved in every physiological functions. Kazdin (2012) reiterates that substances are used in different ways base on societal, professional, or psychological perceptions. Some of the ways they are used includes:

i. Socio-religiously: drugs/substances are used for rituals and social functions such as to appease gods, to invoke spirits, in recreational activities and festivities. This stresses the social responsibility and ignores the adverse effects on the user and on others.

ii. Medically: Substances can be defined medically as things used for pain relieving, health maintenance and healing of diseases. This emphasizes the physical and mental consequences for the user. It is equated with mere act of using substances under prescriptions. Some drugs are allowed to be possessed by individuals while others are not, depending on their effects.

iii. Scientifically: drugs/substances are defined as active chemical materials which alter the structure and functioning of living organisms.

He added that the use of chemical substances to treat diseases and to alter moods have plunged man into unpredictable, untold vicissitudes of life for a long time. Osuji (2005) opines that the ways substances are used and misused depend on so many factors some of which are accessibility to the substances, unstable nature of families, poverty levels, high socio-economic status, desire to achieve high grades particularly students and other stresses of life. The United Nation Bulletin on narcotic vol. xxiii (2) cited in Babangida (1994) reveals that 84 percent of sample of 1,300 students had used traditionally prescribed substances to help with school progress or to ward off evil effects of another substance they believed were directed against them by others.

The World Health Organization (WHO) in Olayiwola (2010:35) defines substance abuse as "persistence and sporadic excessive use of any substance inconsistence with or unrelated to acceptable medical use". Ancient records indicate that human beings have been using psychoactive substances and indeed other substances either to alter their moods or induce mystical experiences, relieve psychological or physical tensions or for any other purposes (Grilly, 2002). These are obtained mostly from plants, some modified, fermented or combined with chemical addictives to improve their flavours or functions. Substances used and still on use are psychoactive substances which are stimulants, depressants, hallucinogens or non-conventional substances. Various substances are used all over the world in diverse ways for different purposes, that no one view or one definition could possibly embrace all the medical, psychiatric, psychological, sociological, cultural, economic, religious, ethical, and legal considerations that have an important bearing on addiction (Encyclopedia of Psychology, 2012). The same source explained that substances of use and abuse vary from society to society, from age group to another and from one socio-economic status to another and differ even among genders.

In Nigeria, specifically Borno state, marijuana, tobacco/nicotine, caffeine, *bikhurnawa, burkhutu* and alcohol among others are classified as social substances which are used for festivities and recreational purposes. These substances have no legal prohibition and are called over the counter (O.T.C.) substances. They are obtainable in almost all kiosks and super markets all over the states. There are many more substances in use in the area of study that can neither be classified according to their pharmacological composition or their effects on the users. These substances according to Agwogie (2003) are: volatile solvents (inhalants) such as gasoline, correction fluid, rubber, solution, acroso, nail polish removal, kerosene, petrol, butyl nitrates, paint thinner, formalin (popularly called 'madaran sukurdie') and soak away others are cough Syrups, local snuff, *hyero,bikurnawa* (seed of local plants grown in southern Borno), bark of *sura, Burkhutu* (local bear made from fermented corn) and many others.

Psychoactive substances are classified based on their pharmacological compositions and the effects they have on the nervous system. They are broadly classified thus: stimulants and depressants.

2.2.2 Substance Use

Substances/drugs have been defined in various ways by different researchers and professionals. Babangida (1994:14) iterates "drugs are substances which are used in medical setting for the treatments and prevention of diseases". Other substances, for instance alcohol functions for recreational or pleasure purposes, yet other stimulants are used to achieve certain desired goals in sports, studies or work. The same source defined substances as something that remedies, as well as destroys the body function, they are as good as they are bad. This means when substances are used in line with medical

prescription, they are good and are life saving aid but when used inappropriately can lead to many disorders and consequently death.

Reliance on substance by the youths of present generation is unequalled in the history of mankind. For many; the use of chemical substance is synonymous with way of life. According to Ensar (1997), there are pills to calm us and pills to help us gain weight; pills to help us lose it, pills to avoid conception and more pills to increase fertility- pills for everything. He asserts that some substances/ drugs are two aged sword, they can save or wreck lives depending on the prescriber and the user. Some of the most dangerous substances are very useful under some situations particularly under medical prescriptions.

Substance use becomes disorder when its use deviates from the culturally or medically accepted use, for instance, the WHO (2014) recommended six cups of coffee for an adult person, according to them, it stimulates the brain functions and improves state of well being. For whatever reason a substance is consumed or inhaled, the user faces situation with which for one reason or the other think they cannot cope successfully, and in the pressure of which they cannot function effectively. Either the stresses are greater than usual or the individual's adaptive abilities are less than sufficient, in either instance they may turn to variety of tranquilizing and energizing drug or substance that can provide the psychological support (kazdin, 2012). When use becomes continuous or excessive, a disorder is developed which is hazardous to the user and those around him/her and the society at large and requires intervention.

2.2.3 Substance Abuse

Substance abuse is the excessive use of any substance with the aim of altering moods or behaviour. It is any excessive use of drugs without medical prescription or using substances not in pattern with societal, cultural or medical ways of using it (Osuji, 2005). He reiterates that it is the consumption of any substance to change or enhance the functions of the body and refers to a period in once life when substances seem to have taken over one's life physically and psychologically.

Substances and drugs at first instance provide the state of well-being; reduce emotional tension and increase mental alertness. But continuous indiscriminate use as done by many secondary school students leads to disorder which causes impairment of various types, according to Osuji (2005), such impairments are mental deterioration, amnesia, decreased psychomotor skills, muscular tension, mood disturbances, increased or decreased appetite, morbid thoughts, feelings of helplessness and sense of worthlessness. According to him, substance abuse is a psychological problem that leads to difficulty in a person's relationship with others and poor perception of the world around him/her and it is characterized by feelings of anxiety, tension, dissatisfaction with one's behaviour and general inability to function effectively. Whatever the effect of any substance, it remains detrimental to the students' health and academic achievement.

Substance abuse is a cyclical process that takes place among connected people who form an intimate, interdependent and interpersonal system. Liddle (1999), Liddle and Hogue (2001) cited in Grilly (2002) view substance use in youths as multi-determine and multi-dimensional disorders and states that both normative and non-normative crises are instrumental in starting and maintaining youth's substance abuse. This shows that to control or eliminate substance abuses from our secondary schools and

consequently our society, a concerted effort is required; hence the use of logotherapy principles.

The word substance abuse is a broader word which incorporates in its meaning both substance abuse and substance dependence. It includes a variety of symptoms caused by the use of chemical substances such as alcohol, caffeine, nicotine, marijuana among others. Many of the psychoactive substances are prescribed under medical supervision for relieve of anxiety, tension and pains. Others such as alcohol, caffeine and nicotine are used as recreational or social substances in most cultures. Although most religions do not approve the use of alcohol, it's used especially in social activities has defied religious injunctions in many societies. Caffeine and nicotine are hardly considered as harmful substances; their uses are unrestricted and are available in almost all shops. Chewing of kola nuts is acceptable in many African cultures particularly in Nigeria, specifically in Borno state. For most people however, the medical or recreational uses of substances develop into chronic patterns of substance abuse. Simply put, when these substances are consumed in ways that go beyond medically or culturally accepted limits, they are said to be abused. Some substances have a relatively strong potential for producing both physical and psychological dependence; others appear capable of inducing one without the other, and still others do not appear to induce either to any significance degree (Grilly, 2002).

Substances to which there is clear evidence of a moderate to strong potential for both physical and psychological dependence include alcohol, caffeine, nicotine among others (Grilly 2002). The same source indicates that these substances induce physical dependence, if given in large enough quantities and for a long enough period of time. Upon cessation of substance administration, psychological induced disturbances opposite

to the substance induced effects manifest. Substance use is a phenomenon that cuts across cultures, age, socio-economic status and gender.

When one continually turns to substances for either physical or psychological support, or the body gets accustomed to it that it cannot function without it, it becomes problem. Ichongo (2001) posits that the shortcomings often associated with substance use and or disorders are really not inherent in the structure of drugs but rather in the user. He further explains that what makes substance use a problem is not so much its inherent pharmaceutical risks but the manner it is prescribed, consumed or misused. APA (2004) defines substance abuse as a pathological use resulting in impairment of social and occupational functions and lasting for at least a month. This involves repeated intoxications, frequent and continuous use for pleasure or avoidance of pains and disregard for the harmful side effect of substances on health. The WHO (2006) defines drug /substance as anything which when consumes by any living organism modifies one or more of its functions. It is any substance which by its chemical nature affects living processes of organism.

Most of the substances are meant to be used under strict prescription for instance, the psycho-stimulants or behavioural stimulants (cocaine, heroin) as sometimes called are meant for clinical use but now used more extensively for recreational purposes. This when consumed at low and moderate doses, produce hightened mood (at its extreme, it is described as euphoric), increase vigilance and alertness, reduce fatigue, and induce the tendency to sleep. General signs of increased sympathetic nervous system activity such as increased heart rate, and blood pressure are evident effects of these substances. Some neurons become more excited under the influence of substances and increase their rate of firing; others dramatically reduce their rate of firing. The most commonly used psycho-

stimulants by students in the area of study however are: - Caffeine, Nicotine, Convulsants, non conventional substances and Pemoline, among others.

The Cambridge Dictionary of Psychology (2009) defines substance abuse as any maladaptive pattern of using a drug or other substances, including dependence disorder, substance abuse disorder, substance tolerance disorder, substance withdrawal disorder and other substance induced disorders. This definition entails any use of substance that does not fall within the stipulated pattern of use directed by the producers or medical practitioners. It also includes all possible effects of these substances on the body as a result of continuous maladaptive use of substances.

Fiona (2009) refers to substance abuse as any physical and psychological dependence occurring as a result of substance use. While Diagnostic and Statistic Manual (D.S.M) of Mental Disorder 4th edition, published by American Psychiatric Association APA (1994:182) in Abadinsky (2008) defines substance abuse as "maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of substances." According to him, it may mean repeated failure to fulfill major role obligation, repeated use in situation in which it is physically hazardous (such as driving while intoxicated), multiple legal problems and recurrent social and interpersonal problems.

Substance abuse is a moral term that implies the unstandardized value ladder and highly relative term used with a great deal of precision and confusion; it refers to substance use that is excessive, dangerous or undesirable to the individual or community (Fiona 2009). Miller (1995:10) in the same source iterates "it implies willful, improper use of substance due to underlying disorder or a quest for hedonistic or immoral pleasure". Others define it as the wrong use, excessive use or misuse of chemical

substances, that is taking a substance /drug for any other purpose than it is intended which may damage the users health or ability to function, interfere with his/her economics and social adjustment.

Bolagun (l999) states that substance abuse is the improper or unofficial excessive use of psychoactive or non medical drugs by children, adolescents and adults in a manner that substantially differs from the accepted patterns within a given society. There are various types of substances classified as psychoactive substances because of their effects on the nervous system.

2.2.4 The Psychoactive Substances

A psychoactive substance is a chemical that has no therapeutic use or used only for its psychoactive effects, and they produce change in the consciousness of the users by altering the brain's normal activity. They are chemicals that users take to change either the way they feel, think or behave (Olayiwola, 2010). Many substances affect parts of the body without the brain but psychoactive substances (alcohol, caffeine, nicotine) affect the functions of the brain and result in changes in behaviours. This is done by acting on the central nervous system; psychoactive substances influence the functions of neurotransmitter system. Most substances' action occurs at the synapses, for instance, one substance may prevent the release of neurotransmitters and another might occupy the receptor site so that normal transmission is blocked out.

Psychoactive substances achieve their effect generally by modifying neurotransmitters through acting on the nervous system. They are substances that alter states of consciousness, modify perceptions and change moods. They help people adapt to an ever changing environment. In small quantity, they reduce tension; relieve boredom and fatigue, in some cases help people to escape from hard realities of the world

(Santrock, 2003). Several studies indicate that neurotransmitters are implicated in different behavioural disorders. Normal brain functioning comprises myriad interactions of billions of inter-connected neurons secreting functionally different neurotransmitters. Each neuron may have about a thousand or more places of synapses upon it, inter-grating information from thousands of different neurons (Buskit, 2008). The psychoactive substances are chemicals that induce psychological effects by altering the normal biochemical reactions that take place in the nervous system. The sets of receptors belonging to a specific neurotransmitter have quite different reactions to the neurotransmitters. Different substances bind to receptor sites with different strengths and may selectively bind to just one or a few receptor subtypes or non-selectively bind to multiple receptor subtypes. All substances have multiple effects, with some effects less desirable (Grilly, 2002).

2.2.5 Psychoactive Substances and the Central Nervous System

The Brain: The brain, a dense mass weighing about 3 pounds and consisting of 10 billion to 50 billion anatomically independent but functionally interrelated neurons, is connected to the spinal cord by fibers and cells (the peripheral nervous system) that carry sensory information and muscle commands to the rest of the body. ‘‘This single organ controls all body activities, ranging from heart rate and sexual function to emotion, learning and memory’’ (Society for Neuroscience, 2002: 5). Abadinsky (2008) explains that the brain contains areas that produce pleasurable sensations—reward pathways. The pharmacological activation of brain reward systems is largely responsible for producing a psychoactive chemical’s potent addictive properties. Direct electrical stimulation of the medial forebrain bundle produces intensely rewarding effects, while stimulants and depressants can activate this reward system by their pharmacological actions.

1. Stimulants

"Stimulants are substances which people take for alertness, wakefulness, excitation and a feeling of euphoria" (Olayiwola, 2010:43). He iterates that they are substances that keep one awake and jittery or nervous and produce behavioral excitation, increased motor activity, and increased alertness by enhancing excitation of neural synapses. He further reiterates that stimulants facilitate or increase physical and mental activities; speed up bodily processes and make the individual functions as if one is being operated by machine. Shamrock (2003) defines stimulants as substances that increase the central nervous system activities. This group according to Osuji (2005) is also referred to as stimulant 'uppers', included in this group are: - marijuana, nicotine (in tobacco) caffeine, seeds of *bikurnawa,* bark of *sura* tree, amphetamines, cocaine and others. These stimulants' functions affect the users by increasing alertness, excitation, euphoria, increased pulse rate and blood pressure, and sleeplessness among others though for a short time.

"Stimulants act on the pleasure centre of the brain and are often used by musicians, labourers, commercial vehicle drivers, sports men and women" (Olayiwola, 2010:44). According to him, excessive use (Disorder) of stimulants leads to restlessness and insomnia, possible circulatory failure, high blood pressure, hallucination, crawling sensations and in extreme cases paranoid delirium, convulsion and death. Because of the hazards of this substances, there is need to explore all available means of controlling or minimizing its use especially among secondary school students.

2. Depressants

Depressants are types of substances which reduce the level of activities in the central nervous system, and therefore depress behavior. "They often induce feeling of

drowsiness, sleeplessness, dizziness, double vision and difficulty in judging distance and time in the user" (Olayiwola, 2010:45). He explained that they tend to calm down neural activities and slow down bodily functions. Depressants are sometimes called 'downers'. Examples of these are: alcohol, *burkhutu*, barbiturates, opiates and others. At the first stage of consumption, they reduce tension, induce emotional highness, and then followed by depressed physical or psychological functions. According to him, these substances alter working consciousness by depressing it or slowing it down by inducing relaxation and reducing physical activities in the CNS. After consuming depressants, Santrock (2003) posits that people tend to 'loosen up' because the areas of the brain involved in inhibition and judgment slow down and eventually become impaired, activities requiring intellectual functioning and motor skills become increasingly impaired. At high level of consumption, the effect becomes adverse, leading to so many complications and death.

3. Substance Dependence and Tolerance

These are concepts related to substance abuse; "it is the psychological and or physical state of reliance on a substance characterized by a compulsion to take the substance in order to experience its effects" (Coleman, 2012:195). He explained that dependence is characterized by maladaptive pattern of substance use leading to clinically significant impairment or distress manifested by signs and symptoms such as tolerance. Tolerance is the need to take increasing doses of substances in order to achieve the same effects as previously achieved with lower doses (Buskit, 2008). That is to say, the same substance has less effect on repeated administration, that higher dose is required for the body to experience the desired feelings. Henrion (2002) defines substance dependence as two or more of the following symptoms occurring at anytime in the same twelve months period:

- -Need for greatly increased amounts of substances to achieve intoxication, or desired effects.
- Needs for increased amounts of substances when a markedly diminished effect is created with continued use of the same amounts of substances.
- Withdrawal, a maladaptive behaviour change with psychological and cognitive concomitant occurring when blood/tissue substance concentration declines in individuals who have maintained prolonged and heavy use of substances.

Substance dependence to Grilly (2002) means when a person's substance use has led to the user experiencing uncontrollable and unpleasant mood or state that in turn leads the user to compulsively use the substance despite obvious adverse consequences. According to him, this may not be detrimental to the user or the society but once it occurs, it may lead the individual to do things that are behaviorally maladaptive, physiologically hazardous or socially unacceptable.

Substance dependence occurs when abstinence syndromes are characterized by physical disturbances when the administration of a substance is suspended after prolonged use or its action is terminated by the administrator of a specific antagonist. In almost all cases, the effects of withdrawal are the opposite of the direct effects of that induced by the substance (Grilly, 2002). He reiterates that basically, there are two types of substance dependence which are: physical and psychological dependence. Physical Dependence is associated with central nervous system depressants; its manifestation is seen through withdrawal symptoms when substances are reduced drastically from the body. Physical dependence includes addiction and habituation. He explained that addiction to substances provides relief from anguish and pain swiftly. It includes

physiological tolerance that requires increasing dosage or repeated use, if it is to remain effective. Sudden removal of the substance from the system causes major upheaval on the body chemistry the person involved in substance abuse when intake is stopped abruptly. While Psychological Dependence on the other hand is the strong and overwhelming desire to depend on substances in order to function normally. It is a compulsion or desire to experience the effect of substance because it produces pleasure or reduces psychic discomfort. This leads to regular continuous administration of the substances, so that taking the substance becomes habitual. Psychological dependence comes about because substance taking behaviour is regularly followed by rewarding affects of substances (Grilly, 2002).

2.2.6 Pharmacology of Psychoactive Substances

Pharmacy Update (2003) explains that the body consists of cells organized into tissues, and specialized cells along the surface of the body and receive information about the environment that is translated into electrochemical signals that we experience as sight, sound, smell, and touch. Information from the internal and external environment, collectively known as stimuli is received by the central nervous system (CNS), consisting of the brain and the spinal cord, whose cells—neurons—send information to a specific processing centers of the brain. Three brain circuits are especially important in initiating and maintaining drug abuse; these are:

i. stress pathways

ii. reward pathways

iii. obsessive-compulsive pathways.

Grilly (2002) explains that the neurobiological system of the body is divided into peripheral nervous and central nervous systems which consist of neurons that transmit information between the central nervous system and the rest of the body; furthermore, it

sends sensory information from the body to the central nervous system, and relay motor commands from the central nervous system to the muscles and glands of the body. Efigwazi (1997) posits that a common target site for psychoactive substances is the post-synaptic receptors where neurotransmitters bind: For instance, nicotine binds to nicotinic acetyl cholinergic receptors. Substances that bind to receptors and prevent neurotransmitter molecules from occupying the receptor sites are direct antagonists. Other substances work as antagonists and agonists by binding to sites other than where neurotransmitter molecules bind.

The National Institute on Drug Abuse [NIDA] (2001) posits that substances can affect what happens to neurotransmitters after they are released from their receptors by interfering with their enzymes that break the neurotransmitters or re-uptake mechanisms down. Each type of neurotransmitter binds to specific type of receptor that typically bears their name, for instance, dopamine to dopaminergic receptors. From the neurobiological perspective, psychoactive substances increase dopamine level in the brain's reward pathways. These substances cause the activity of the reward pathway to increase the dopamine transmission and blocks the neurotransmitter re-uptake making these substances acts as agonists or antagonists. Psychoactive substances such as stimulants and depressants achieve their functions by modifying the action of nervous system and acting upon the neurotransmitters such as dopamine, acetylcholine, gamma amino- butyric acid (GABA) histamines among others and the brains' important neurotransmitters which play key roles in the processes of positive reinforcement. The idea is that any substance use or pleasurable activity or rewarding properties release dopamine in part of the brain (Ksir, 2004). Each of these mentioned neurotransmitters according to him is involved in a number of CNS and bodily functions. For instance, when a substance affecting dopamine transmission is consumed, it affects a number of

different behavioural and cognitive functions in different thresholds depending on individual sensitivity and variability.

Many researchers believe that the frontal cortex of the brain which is involved in decision making and memory, holds a memory of the pleasures involved in prior substance use (relaxation, lowered stress, inhibition) and contributes to continued consumption (Santrock, 2003). It is also believed that the basal ganglia which is involved in compulsive behaviours may lead to a greater demand for substances regardless of reason and consequences (Brink, 2001). Researchers in this area indicate that for substances to have effect on the body, certain personal and socio-cultural factors such as:-amount taken at one time, the substance history of the user, the circumstances in which the substance is taken, the feelings and activities of the user, the presence of other people and the simultaneous use of the with other substances most come into play (Grilly, 2002). Santrock (2003) buttresses this by positing that each substance effect varies with people's body and how the substances are metabolized by the user, the body weight of the user, the amount of substances consumed, and whether previous consumption has led to tolerance.

In most people, the therapeutic dose reduces emotional reaction, mental alertness, mild anxiety, tension and agitation. Normally, at the initial dose, a person experiences feelings of wellbeing and loss of inhibition though responses may vary with individuals; with some feelings drowsy and others feeling isolated from their surroundings (Kazdin, 2007). For any substance/drug to exert its effect on the body it most reach its site of action which must involve its passage from the site of administration to the cells of the body or the padded tissue organs. These processes include its absorption, distribution, metabolism and elimination of the substance, which is the pharmacokinetic of the substance action.

The rates of absorption affect the direction and intensity of substance actions because most substances most enter the blood stream in order to be circulated round the body. The way or channels through which substances are taken is also important in determining the intensity of the substance action. Substances reach the body through lipid or water soluble or gaseous verses solid states. The rate of absorption can be rapid or slow, acute or continuous depending on the site of application and the state of the substance. Administration can be oral, sublingual (place under the tongue) intranasal or through inhalation. All these affect the rates and amounts that reach the site of action. Other variables that affect the rate of substance absorption include ethnicity, genetics, age, drug experience and substance experiences (Encyclopedia of psychology, 2012).

The NIDA uncovered evidence that reveals that an individual's genetic makeup is a major factor in vulnerability to substance abuse (Volkow, 2006). Hundreds of studies indicate that genetic endowment predisposes one to substance abuse. For instance, Grilly (2002) posits that a multitude of sociological, psychological and genetic factors have been suggested to be involved in substance abuse, genetic influences appear to be nearly universally important in determining sensitivity to substance and toxic responses to almost all substance. Twin and related studies lend credit to this claim. Vonyukov and Tarter (2000) state that, family twin and adoption studies provide overwhelming evidences that variation in the liability to substance abuse is influenced by differences in individual genetic makeup. While substance abuse is the result of complex interplay of environmental, psychological and biochemical factors, genetic factors play an important role in the vulnerability to it. The more severe the disorder is, the greater the role of genetic factors (Volkow, 2006).

2.2.7 Types of Substances of Use Disorder in Secondary Schools

Drugs/substances are one of the greatest blessings of modern science and technology; however pathological use can be a source of misery and unhappiness as well as a factor in preventing the user from making full uses of his/her potentials particularly among secondary school students. For this reason, the substances of use disorder among secondary school students in Borno state will be reviewed. These are gateway substances are marijuana, nicotine/tobacco and *burkhutu*.

2.3 Gateway Drugs/ Substances

Gateway drugs or substances are drugs and/ or substances that acts like any other substances, altering the normal functioning of the brain. Koob (2014) defines gateway substances as substances or drugs that purportedly lead to abuse of other substances. According to him, long term exposer or use especially of cannabinoids, the active ingredient in marijuana suggests that addiction to one substance could make a person vulnerable to abuse and addiction to other substances. Although some of these substances have therapeutic values, maladaptive use often leads to other hard/dangerous substances. It is based on this reason that its control especially among secondary school students is crucial. Among the gateway substances of interest to this study are: marijuana and nicotine/ tobacco.

2.3.1 Marijuana

The scientific name of marijuana is Cannabis sativa, Latin word for ‘‘cultivated hemp,’’ given by the Swedish scientist Linnaeus, which accounts for the ‘‘L.’’ that is sometimes added to the term. (Abadinsky, 2008) iterates that Marijuana is traded under different names some of which are: Pot, Acapulco Gold, grass, reefer, sinsemilla, Thai sticks and others. He explained that marijuana plant grows wild throughout most of the

tropical and temperate regions of the world, including Nigeria and parts of the United States. It has been cultivated for the tough fiber of its stem, and its seed is used in feed mixtures and its oil in paint. The psychoactive part of the plant is an isomer of tetrahydrocannabinol, delta9-tetrahydrocannabinol (THC), which is most highly concentrated in the leaves and resinous flowering tops (Abadinsky, 2008). He reiterates that Cannabis preparations can be eaten or drunk in mixtures of resin and water ormilk, a form known in India as bhang. In Borno state, marijuana is usually rolled in paper and smoked; theuser inhales the smoke deeply and holds it in the lungs for as long as possible. This tends to maximize the absorption of THC, about one half of whichis lost during smoking. THC appears to act as a dopamine agonist while alsohaving an opiate like effect on the brain's receptor system (Gold, 1994) cited in (Abadinsky, 2008). Thepsychoactive reaction occurs in one to ten minutes and peaks in about ten to thirtyminutes, with a total duration of about three to four hours.

Exactly how marijuana affects the central nervous system is not entirelyknown but Odebunmi (Ud) stated that it is extremely powerful and pleasurable intoxicant and that it affects, alters and damages brain cells controlling thinking, emotion, pleasure, coordination, mood and memory. He further reiterates that the pitituary gland which regulates hunger, thirst, blood pressure, sexual behaviour and release of sex hormones is also damaged. According to him, marijuana accumulates in the microscopic spaces between nerve cells in brain called 'synapses'. This clogging interferes by slowing and impairing transfer of critical information. He stated that other glands and organs affected by the continued use of marijuana includes the: thyroid gland, stomach, duodenum, pancreas, adrenal glands and the testis.

In 1990, researchers discovered cannabinoid receptors discretely hallucinogens, club drugs, marijuana, and inhalants.

Abadinsky (2008) explains that possible effects of marijuana includes: euphoria, relaxed inhibitions, increased appetite, disorientation and use disorder leads to fatigue, paranoia, possible psychosis among others. These brain receptors are stimulated by the drug, indicating that there could be a naturally occurring THC neurotransmitter (Hilts 1990; Martin et al. 1994) cited in (Abadinsky, 2008). It was subsequently discovered that humans produce a cannabinoid -anandamide (Harris 1999). Brain receptors react to anandamide as well as to compounds in cannabis, triggering similar effects. In 1997 researchers found that marijuana triggers the release of dopamine, which stimulates pleasure centers of the brain and a craving for more marijuana (Blakeslee 1997; Carroll 2002) cited in (Abadinsky, 2008).

The most important variables with respect to the drug's impact are the individual's experiences and expectations and the strength of the marijuana.
Thus, the first-time user might not experience any significant reaction. In general, low doses tend to induce restlessness, an increasing sense of well-being, and gregariousness, followed by a dreamy state of relaxation and frequently hunger, especially for sweets. Higher doses may induce changes in sensory perception, resulting in a more vivid sense of smell, sight, hearing, and taste, which may be accompanied by subtle alterations in thought formation and expression.

Medical Controversy states that although marijuana has some uses in medicine, for example, to relieve the pressure on the eyes of glaucoma patients, to control the nausea and vomiting that accompany cancer chemotherapy, and to control the muscle spasms of multiple sclerosis patients, its use remains illegal for long. Since 1982, however, there has been a legally available pharmaceutical products for physicians in ophthalmology and for cancer treatment (Marinol -dronabinol), which is 98.8 percent pure THC. There is a dispute as to whether or not oral THC is as effective as smoking

marijuana (Grinspoon, 1987; Jourbert 1987; Nahas and Pace 1993) in (Abadinsky, 2008).

In 1989 an administrative law judge for the DEA recommended that marijuana be placed on a less restricted schedule, one that would make it available by medical prescription. The judge called marijuana ‘‘one of the safest therapeutically active substances known to man. However, the DEA rejected the judge’s recommendation (U.S. Resists Easing Curb on Marijuana 1989). In 1999 a federally commissioned report by the Institute of Medicine stated that the active ingredient in marijuana is useful for treating pain, nausea, and the severe weight loss experienced by victims of AIDS. Because the smoke emitted by marijuana is even more toxic than tobacco smoke, the report recommended use of the drug only on a short-term basis, under close supervision, for patients who failed to respond to other therapies (Stolberg, 1999) cited in (Abadinsky, 2008). Unfortunately, the use of marijuana has transcended much more beyond therapeutic use; it is used by secondary school and tertiary institution students and a great number of youths across many nations all over the world.

Stolberg (1999) explained that addiction of marijuana leads to addiction to harder drugs and substances like heroin or cocaine. According to him, long term exposer to cannabinoids, the active ingredients in marijuana, suggests that addiction to one drug could make a person vulnerable to the abuse and addiction to other drugs or substances. He further explains that cannabis abuse appears to activate corticotrophin releasing factor, a brain chemical that increases during periods of stress, consequently, leading to the subtle disruption of brain processes that are termed ‘printed’ for further and easier disruption by other drugs or substances of abuse.

2.3.2 Marijuana Tolerance and Withdrawal: Animal and human studies conducted since the 1970s have revealed a marijuana withdrawal syndrome, which, though less

severe than that for alcohol, heroin, or cocaine, is characterized by insomnia, restlessness, loss of appetite, irritability, anger, and aggression (Carroll, 2002). In 1999, a study found that people who have smoked marijuana daily for many years display more aggressive behavior when they stop smoking the drug (NIDA, 1999a). However, THC has a very long half-life, working its way out of the body slowly over many days and thereby obviating severe withdrawal symptoms (Markel, 2002). In fact, marijuana withdrawal is similar to that experienced by cigarette smokers when they quit (Carroll, 2002; Zickler, 2002).

2.3.3 Dangers of Marijuana Use

Marijuana, traded under different names like any other substances of use disorder, is hazardous to the health of users and a waste to Nation's economy. Many researchers explained some of the negative short-term effects as; loss of inhibition, and some users also experience a loss of self-confidence, aggressiveness, and even auditory hallucinations. High doses impair learning, short term memory, and reaction time (Misner and Sullivan, 1999) cited in Abadinsky (2008). Marijuana causes a significant increase in heart rate; however, this increase is no more dangerous than that caused by using caffeine or nicotine. Casual use of marijuana results in the same impairments that one would expect from equal amounts of alcohol (Abel 1978). The long-range effects are more controversial, some claiming no significant physical or psychological damage and others finding the opposite. Although most marijuana users are able to quit, there appears to be a small portion of that population, 10–14 percent, who become strongly dependent (Carroll, 2002).

Marijuana is frequently referred to (by government and 'drug warrior' sources) as a gateway drug. In other words, the 'road to drug hell' (abuse of heroin and cocaine) begins with marijuana. Although many if not most users ofhard drugs did at one time use

marijuana (Office of National Drug Control Policy, 2004), they also smoked cigarettes and used alcohol as well as caffeine. The most obvious connection is via the retail dealer, who is often a 'walking drug store.' Because marijuana is illegal, enterprising outlaws selling the substance might have a smorgasbord of products available to tempt marijuana users, possibly when their preferred substance is unavailable or from a desire for novelty.

2.3.4 Nicotine/tobacco use Disorder

Nicotine is a colourless, oily liquid found in cigarettes/tobacco, kola nuts, cocoa, beverages, and in other local psychoactive substances such as *hyero and* bark of *sura* tree. It is named after Jean Nico, who introduced tobacco to the French court in the 16th century. Nicotine is the main component of cigarette or tobacco, kola nuts, among others. It is the ingredient that gives the substances their pleasant taste.

Tobacco plant the main source of nicotine is indigenous in north and native America and cultivated for consumption first at local level and later for commercial purposes. The leaves of tobacco is dried, processed and preserved for smoking, while the unprocessed ones are consumed orally particularly by women, and nasally by men in the form of snuff. In the area of study, it is cultivated among the Bura people from southern part of Borno states, the flower is used by women for cleansing and beautification of the teeth, while the leaves is dried, fermented and consumed either orally or nasally. In 1942, the Scottish physician, Lennox Johnson found about 80 different injections from nicotine extract which he admitted to have liked it more than cigarette (Barlow, 2002). Nicotine is a psychoactive substance that produces patterns of dependence, tolerance and withdrawal symptoms, (nicotine use disorder).

Odebunmi (Ud) states that nicotine, the highly addictive chemical in tobacco stimulates the pleasure centres in the brain creating pleasue and alertness and later acts as a

tranquilizer and sedative. According to him, it directly affects,alters and takes control of specialized receptor cells in the brain responsible for regulating well being, mood and memory. The drug remain active for 20-40 minutes then withdrawal symptoms sets in with mood changes. The user becomes irritable, anxious and this discomfort becomes more severe, stimulating intense cravings for more nicotine. He further reiterates that it causes fast beating of the heart rate, increases blood pressure and constricts blood vessels. Carbon monoxide decreases delivery of oxygen to the heart, increasing risk of heart attack and strokes. It causes weakening of the heart muscles' ability to pump blood leading to death. According to him, nicotine causes aneurysms (blood filled sac in the aorta), pulmonary heart disease, liver cirrhosis, increases blood pressure, increases risk of vertebral cancer, reduces sex drive and increases risk of impotence in males and increases risk of cervical cancer in females and facilitates early menopause.

Usually people start smoking or taking nicotine as experimental or sporadic users and graduate to continuous use until a disorder is developed. If left unchecked, may lead to disorder or hard substances. To buttress this the Surgeon General of United States posits that the pharmacologic and behavioural processes that determine tobacco or nicotine addiction as similar to those that determine addiction to other hard substances, like heroin and cocaine; this makes it almost difficult to quit smoking or taking nicotine (Grilly, 2002).

Eisenberg and Baisker (2000), state that despite several studies on nicotine, researchers are yet to discover the reinforcing agent in nicotine/ tobacco. According to them, majority of individuals that smoke experience unpleasant feelings but added that probably, the psycho-social rewards, such as peer acceptance and role-model identification are sufficiently strong to maintain smoking behaviour. They further iterate that nicotine has long been presumed to be the most important factor behind smoking

tobacco (Grilly, 2002). Schelling (1992) in the same source states one important factor responsible for maintaining the use of tobacco/nicotine is its ability to reduce negative affective states (traumatic aversive emotional states) such as, sadness, boredom, anxiety which may occur as function of endogenous characteristics on the individual.

Another factor that aid maintenance of smoking is the reinforcing quality of giving the hand something to do; Zickler (2002:7) posits that "each day, more than 3,000 young people smoke their first cigarette and the likelihood of becoming addicted to nicotine is high for those than those who began later in life." Other studies opine that nearly one in four high school students smoke everyday and more than one in eighty one (81) smoke half pack or more each day (National Institute on Drug Abuse, 2000). The same source explains that young people age 12-17 years who smoke are about 2 times more likely to drink heavily than youths who did not smoke.

Citing Santrock (2008), more than 50 million Americans still smoke cigarettes today; its smoking peaked in l970s, declined substantially for few years, remained relatively stable in mid l980s and early 1990s, increased in the last few years and experienced a slight decrease in the last few years of the 20th century for 8th and l0th graders. Results from 2000 survey reveal that over half of 12th graders (63%) and 10th graders (55%) smoke cigarettes in their lifetimes, while (41%) of 8th graders had smoked cigarette. The reported prevalence rates for smoking during the previous 30 days were 31% of 12th graders, 24% of l0th graders and 15% for 8th graders (Grilly, 2002).

The prevalence in these graders seems to be higher than other graders, which is indicative that once started, it becomes difficult to quit. However, the percentage of smokers based on the population has more or less leveled off with 24% prevalence in 1990 and 25% in 1994. Despite some differences in patterns of satiation, maintenance, and cessation, the history of smoking in women paralleled that of men (Grilly, 2002). In

traditional African societies women were not given to much substance taking but with modern civilization with its antecedents problems, more women have been found to abuse substances especially the psycho-stimulants. Reports by kazdin (2012) reveal that smoking rates of young people in the United States are rising once again, increasing by 45% in the l0th graders (14-16yrs of age) and by 20% in the 12th graders (16-18 years of age) in 1995 and increase more pronounced in girls. This particularly coincides with the secondary school age in Nigeria. The same source reports that, for young stars who smoke, about 25% started by the age of 12, 50% by the age of 13 and 14, and 90% by the age of 20.

In another study conducted by Adelekan (1989); Fatoye and Anochin, Nkanginweme, Eke, Ahkor (1999); Fatoye and Morakinge, (2000) and Oshodi et al (2010, it was reported that in Nigeria, nicotine is one of the substances abused most, according to them, in the past 10-15 years, it has been found that tobacco and other psychoactive substances were the commonly abused substances among secondary school students. The same study found prevalence of nicotine use disorder in secondary schools in Lagos state, in Ilorin, Sokoto state and Port Harcourt. They assert that the use of tobacco constitutes one of the most risks taking behaviour among adolescents and young adults in secondary schools and attributed this to curiosity, and group influence.

Oshikoya and Alli (2006) posit that using tobacco and other psychoactive substances particularly alcohol at a young age increase the risk of using other substances later in life. They state that some teenagers will experiment and stop or continue to use occasionally without significant problems, others will develop addiction moving on to dangerous substances causing significant harm to themselves and possibly others. This is one reason that has motivated this work; to minimize disorders of gateway substances so that users especially students do not progress to the use of hard and more dangerous

substances. This means students who continuously use substances (the gateway substances) sometimes discover that these substances may no longer satisfy their craves and may seek satisfaction in substances that are more detrimental to their health, academics and social relationships. Rigotti and Wiechsley (2000) reveal that nearly half (45%) of all College students report having tried some tobacco products and one third routinely smoke cigarettes and or tobacco. Kazdin (2012) iterates that until quite recently, nicotine disorder resulting from tobacco use was not associated with obvious intoxication and not considered disruptive of productive activity or socially undesirable behaviours.

Today findings revealed that nicotine is a substance that meets the rigorous criteria for abuse liability and dependence potential and cigarette is one of the major substances of use disorder in the United States and in the world at large. It is responsible for more premature deaths than all of the other substances of use disorder combined (Abadinsky, 2009). The same source strengthened the above fact by stating that nicotine use disorder is the largest cause of preventable mortality rates in the world. Nicotine found mostly in tobacco is a stimulant that acts on the CNS and produces distinct physiological and psychological changes in humans. Bolagun (1998) iterates that it is very addictive and poisonous that if all the nicotine in one pack of cigarette were injected in one adult person at the same time, it would kill the adult within minutes. When Nicotine is injected, first it acts as a stimulant but later, depresses the CNS causing general weakness and dullness. According to him, nicotine alters the mood and does not relieve anxiety, but the gasses in tobacco smoke, particularly carbon monoxide, hydrogen cyanide and nitrogen oxide are the most dangerous to health and life. Recent findings show that cigarette smoking leads to tumours of the bladder (Ross and Wilson 2010).

Neuro-biologically nicotine, especially from tobacco or cigarette is inhaled into the lungs where it enters the blood stream. Barlow (2002) iterates that only 7-19 seconds after a person inhales the smoke, the nicotine reaches the brain. When in the brain, nicotine stimulates specific receptors, for instance; nicotinic acetylcholine receptors (nAchRs) which is in the mid brain reticular formation and the limbic system, stimulates the site of pleasure and reward pathways. Nicotine acts on receptors found throughout the nervous system, in the peripheral nervous system. Activation of nicotine receptors produces sympathetic effects, primarily because of the release of adrenaline (epinephrine) from the adrenal gland into the blood stream. Adrenaline in turn is transported to adrenergic receptor in the heart and the blood vessel, leading to increases in heart rates and elevated blood pleasure (GriJy, 2002). Kazdin (2012j posits that one quarter of nicotine taken into lungs during smoking reaches the brain in about 15 seconds resulting in nearly immediate effects, it temporarily enhances visual surveillance, reaction time, mental efficiency, rapid information processing, and memory recall.

Nicotine acts on cholinergic receptors in dopamine pathways in the VTA in a manner similar to that produced by heroin, cocaine and amphetamine; producing plausible accounts for 70,000 deaths, 52,000 of which can be attributed to cigarette smoking.

According to him, smoking has proven to be the cause not only of most cases of chronic obstructive pulmonary diseases but also of 90% of bronchogenic carcinoma resulting in 106, 000 deaths per year and nearly 35% of fatal myocardial infection resulting in 115,000 deaths a year. Kazdin (2012) iterates that although fewer than 30% of Americans now smoke, the patho-physiological consequences of the habit still accounts for nearly 60% of all direct health care costs, with expenditure estimated to be in excess of 68 billion annually. Godwin and Gabrielli (1997) explains that some

evidences points to how nicotine may affect the fetal brain, possibly increasing the likelihood that children of mothers who consume nicotine or smoke during pregnancy will smoke later in life.

Studies reveal that most people involved in substance abuse started smoking from their youths, as they grow older, they seek new thrills and gradually go into hard substances leading to use disorders (Abadinsky, 2008). The WHO and Ward Heart Foundation Data, state that in Nigeria, 22.1% of school youths age between 12-17 years use tobacco, in south Africa, it is 19.4%, in Ghana, 15.1% while 16.2% in Kenya. This data showed Nigeria having the highest prevalence of nicotine consumption among secondary school students. In light of this, Abudu (2008) posits that the fear is that youths are lured into early death from cardiovascular disease (CVD), lung cancer, and other tobacco related diseases. With these dangers in mind, the Secretary General of African Heart Network, Dr Kingsley Akunroye advised Nigerians not to be in partnership with industries that are injurious to them even if they cannot prevent their establishments. He stated that this in reaction to the multi billion naira investment deal between the Nigerian government and the British American tobacco (BAT) to build a tobacco plantation in Ibadan for production of tobacco and related products at the detriment of Nigerian's health.

Nicotine taken in smoke has no significant effects in relation to intoxication; because of these it is not usually regarded as very harmful to health. Studies by Grilly (2002) explain that nicotine has mild psycho-stimulant effect particularly with respect to enhancing vigilance. He further states that a socially relevant dose of nicotine facilitates choice reaction time, motor tracking and short term memory retrieval. Kerr et al (1991) in the same source state that in most cases, nicotine shifts EEG patterns toward those often associated with increase psychological arousal, that is, higher frequency, lower

amplitude waves and are most pronounced when the individual is relaxed with eyes closed. Other researchers such as Grilly (2002), states that nicotine can enhance task performance, memory, cognition and learning, in some individuals in some situation, sometimes. This however depends on whether the person is a tobacco user or the level of nicotine in the body. Because of these seeming functional aspects of nicotine, Kazdin (2012) iterates that some individuals utilize it to help overcome pre-existing psychological condition that cause distress, sub-optimal function or both.

However mild the effect of nicotine may seem, continuous use affects the user in many ways. Apart from leading the user to harder substances, it may be detrimental to performance in complex tasks such as understanding articles or solving problems. it can affect mood, cognition or arousal, all of which can interact in complicated ways. For instance, cognition could be enhanced directly by nicotine because it improves the person's mood (Grilly, 2002). Many other studies have shown the effects of nicotine or tobacco on the users. Bolagun (1998) and Guidance Counselors' Report (2007) summarize the effect of nicotine on the user as: Nicotine/smoking is a major contributor to heart attack, stroke, chronic bronchitis and various cancers, especially lung cancer; of the larynx, pharynx oral cavity esophagus, pancreas, and bladder, it contributes to impotence in men, leads to smokers cough, and shortness of breath, premature facial wrinkling, and suffocation of unborn child in pregnancy and damages cells of the unborn child.

Nicotine, carbon monoxide and other dangerous nicotine chemicals contained in cigarette smoke enter the mother's bloodstream and pass directly to the child in the womb through the placenta. This leads to greater likelihood of spontaneous abortion or stillbirth; retardation of fetal growth and development, increase in the risks of fetal and infant deaths, respiratory problems during childhood, it may also cause increase in

hemoglobin rate and elevation of blood pressure leading to increased demand for oxygen by the heart According to them, one property of nicotine is vaso-constriction, that is the ability to cause decrease in blood flow to the brain, heart and all systems of the body, making cigarette smoking a major factor in many diseases associated with poor circulation. Excessive cigarette /nicotine consumption (use disorder) results in chronic indigestion, bad breath, muscular tremor and general irritability. Smoking or nicotine consumption in excess leads to less effective immune system than non-smokers and skin wounds may also heal less quickly due to depletes of vitamin C levels. Smokers according to them have less effective systems than non- smokers. The British Royal College of Physician states that each cigarette cuts 51/2 minutes from a smoker's life span.

Another finding by Wallace-bell (2003) states that smoking/nicotine consumption is linked to 30% of cancer deaths, 21% of heart diseases deaths, and 82% of chronic pulmonary disease deaths. He explains that second hand smoking, that is one that is not directly ingested by the individual, is implicated in as many as 9,000 lung cancer deaths in a year. Children of smokers are at special risks of respiratory and middle ear diseases. Geihert and Browne (2012) posit that no other psychoactive substance is associated with the morbidity of tobacco. This gives added significance to this study.

The NIDA (2010:3) reports "tobacco smoking and nicotine consumption kills more than 430,000 United States citizens each year, more than alcohol, cocaine, heroin, homicide, suicide, car accidents, fire and acid combined". This trend may not be far from the rampant death occurring in the area of study as a results of heart attacks/failures, strokes and other unidentified causes of death among the people. To buttress the above, the WHO, (2010) calls tobacco the leading cause of preventable death in the World. In Nigerian society today particularly in Borno state, the manifestations of substance abuse

of which nicotine is high is evident in every town and village and in all institutions of learning culminating in high degree of terrorism and insurgents attacks killing people in thousands and destroying properties worth millions of naira.

2.3.5 Burkhutu

This is a type of local bear processed from fermented corn and use for festivities and other social gatherings among the *Bura, Chibok* and *Marghi* people of southern part of Borno. *Burkhutu* is a central nervous system depressant especially when consumed in large amount **.**

Burkhutu **Use Disorder**

The Bura people of southern Borno have used seeds of *bikurnawa, Burkhutu, hyero* and other non conventional substances as part of religious, social and ceremonial rights since pre-historic times. It may be chewed, soaked or boiled to produce tea and taken orally. A significant amount of these substances consumed produce illusions and hallucinations that last for few minutes or hours depending on the amount taken. Although there are no report of fatal cases of death occurring from their use, it has been observed that continued, excessive use of these substances lead to disorder of hard and dangerous substances. Because of this, it is important to control or minimize their maladaptive use.

2.3.6 Substance abuse in Borno State

The problem of substance abuse has become a major social and economic problem throughout the World. It has led to tremendous loss of human potential as well as an enormous drain of financial resources of the government of the countries involved in the fight against further spread of this problem (WHO, 2006). In Nigeria, accounts of

illicit drugs and other substances abused by youths dated most significantly after the civil war. As civilization increased in complexity, substance abuse became a serious problem (Maigari et al, 2014). They reiterate that in Nigeria, the age of first use of substance is between 10 to 29 years. This age range coincides with the age of pupils in primary schools through secondary schools.

The excessive use of substances in Borno state is facilitated by legal availability of the substances. Maigari et al explain that Borno state is bounded by three countries namely Cameroon, Chad and Niger, this makes trafficking of substances within and across the borders very easy. According to them, this is evident in the magnitude of illicit drug seizures at the borders and all over 27 local governments areas of Borno state by the NDLEA. For instance, Borno state command of NDLEA, arrested 221 persons with illicit substances between 2007 and2009 made up of 4, 869.9kgof Indian hemp (marijuana), 134.5kg of psychotropic substances made up of tremol, diazepam (valium), and nitrazepam and 1400kg of cocaine (Borno Command Report) cited in Maigari et al, (2014).

Adolescents and young people generally are vulnerable to experimentation and ignition into substance use habits resulting into significant impairment , including poor school performance, teenage pregnancies, school dropout and involvement in crime (Abdulmalik, Omigbodun, Wakil and Beida, 2013) especially where the substances are readily available for them. Jibrin (2014) posits that conduct disorder is a strong predictors of substance abuse and strong predictors of prevailing crisis in the capital city of Borno state in North East of Nigeria. Teachers, parents, and the government have expressed sadness over the sudden increase in substance abuse especially among secondary school students in the state. Te governor, Dr Kashim Ibrahim stated that the

current insurgents (Boko Haram) members are acting under the influence of substances. According to him, the crime rate compiled by the police revealed that most crimes like sexual abuse, pick pocketing, insults of teachers and assaults of female gender were committed by students under the influence of substances (Daily Post, 2013) cited in dailypost.ng/2013/06/27/borno-i-how. This trend is disheartening and requires earnest effort to override it.

2.3.7 Gender and Substance abuse

Several studies in gender and substance abuse indicate a specific direction particularly with the use of alcohol, caffeine and nicotine. For instance, the U. S. Department of Health and Human Services, (1990) reveals that males seem to be most vulnerable to drinking problems when they are between the ages of 18-29. Approximately, 14% report symptoms of dependence during this period and 20% report some negative drinking related consequences. The same study posit that this number decreases with age to about 5% reporting dependence and about 7% reporting drinking related consequences by age 60 and older. However, the picture for women is not very clear. Another study indicates that the number of women reporting symptoms of dependence stays at low and stable rate of about 5% -6% through age 49 and then decreases to about 1 %. However, drinking related behaviour starts at a higher rate than men, at around 12% but they quickly decline almost to non-existent after age 60 (Grilly, 2002). In the area of study, substance abuse used to be a problem of men than women but in the contemporary society, especially in secondary schools, girls are involved in substance abuse as much as the boys. For instance, in Kaduna state, 7 girls and 4 boys were arrested in a hotel room using psychoactive substances (Jibrin, 2014).

2.3.8 Substance Abuseand Socio-economic Status

Substance abuse and Socio-Economic Status Socio-economic status also plays a role in psychological disorder. In studies of socio-economic status and ethnicity in psychological disorder, socio-economic status plays a much stronger role than does ethnicity. According to the researchers, poverty creates stressful circumstances that can contribute to the development of psychological disorder (Elliot, Beaftie and kaunlafs, 2001; schutz and other; 2000; Weich, Lewis and Jenkis, 2001). They further explain that Socio-economic status acts like two edged sword, those on low strata use substances to belong or show that they have arrived while those on the higher strata use it for recrettiona1 purposes until they lose control and use develop into disorder.

Substance abuse as stated earlier, cuts across all strata of the society, the children from the poor homes want to lure the children from rich homes into substance consumption and use them as sponsors for the substances, use them to encourage others to join in their substance use and when caught by law enforcement agents, could be bailed (Olayiwola, 2008). He further explains that drug dealers make friends with influential peoples' children to promote their business and attract others. On the other hand, poverty has been identified as a leading factor in substance abuse, in cases where one decides to take substance to forget about problems associated with poverty. It has also been found that people of high socio-economic status use substances a lot for social recreational reasons and continuous use lead to substance abuse.

2.3.9 Causes/Risk Factors of Substance abuse

The causes of substance abuse are multi-phasic and multi-dimensional. The National Institute on Substance abuse [NISUD] (2000) asserts that substance use problems are more of problems of people than of a particular substance. There is no single psychological concept that describes all substance abuses, the extent of misuse,

the type of usage, and the degrees of dependence are all aspects of cultural, social and personality adjustment. According to this institute, social pressures to conform are strong components of initial substance use. Among the youths however, being 'turned on' by one's friend is the most frequent factor leading to introduction to substance use and most frequent stimulus for continued substance use. Awogie (2003) posits that the reason why our youths get involved in the use of substances include, acceptance attitude toward drugs and unstable homes, (Drug subculture, polygamous homes, low social-economic status, lack of love/inadequate parental care, large family size, autocratic/laissez- faire parenting styles, broken homes, social drugs, peer groups, urbanization, availability of the drugs, illiteracy, unemployment, ignorance, curiosity, frustration, euphoric effect, depression, nature of job and neuroticism). Looking at the factors above, one may be right also to say that some of the problems are the consequences of substance abuses rather than its cause.

The DSM-IV of American Psychiatric Association (2004) presents the following as the causes of substance abuse:

- Alleviation of pains
- Alter perception
- Produce feelings of well beings
- Enhance performance
- Ease anxiety or calm down tension
- Faulty medical advice
- Inheritance
- Personality disorder
- Peer pressure

- Emptiness and boredom
- Poverty

Newcomb (1995:17). Cited in Abadinsky (2008) summarizes the risk factors of substance abuse as follows:

Culture and Society,

- Laws favorable to drug use,
- Social norms favorable to drug use,
- Availability of drugs,
- Extreme economic deprivations,
- Neighborhood disorganization,
- Interpersonal,
- Parent and family drug use,
- Positive family attitudes toward drug use,
- Poor/inconsistent family management practices,
- Family conflict and disruption,
- Peer rejection,
- Association with drug-using peers,
- Psycho behavioral,
- Early/persistent problem behaviour,
- Academic failure,
- Low commitment to school,
- Alienation,
- Rebelliousness,
- Favorable attitudes toward drug use,

- Early onset of drug use,
- Biogenetic,
- Inherited susceptibility to drug abuse, and
- Psycho- physiological vulnerability to drug effects.

Osuji (2005) listed the following as the causes of substance abuse among youths: the amount of daily hassles causing frustration, lack of support, not having someone to confide in, feeling of helplessness, and burdened work stress. He further asserts that substance abuse is associated with heart failures, cancer of the mouth and throats, apparent decrease in brain cells, cirrhosis of the liver and high mortality rate of about 2.5 times that of non-substance abuses. Other effects according to him are lack of interest in scholastic and athletic striving, and marked reduction in physical and social activities, leading to traffic accidents, crimes, violence, sexual promiscuity, destruction of lives and properties, arson, academic failures and murder. The United Nation Bulletin on Narcotics as explained by Oshikoya and Alli (2006) in a study using a sample of 1,300 students reveals that 84 % of the students have used traditionally prescribed substances to help with school progress or to ward off evil effects of other substances they believe were directed against them. Yet others take substances to relieve the tedium of their jobs and daily lives; while some take to escape hard realities of life. Many intelligent and ambitious people take substances to help them perform better or calm themselves down from the tensions of their jobs. With continuous use, some people become hooked and unable to stop taking the substances even though they think they are in control.

When this happens logotherapy principles becomes important in restoring back confidence and abilities in clients hence reducing substance use to barest minimum. The understanding that substance abuse is bad for health, academic performance, and social

lives is the beginning of attitude modification. In some cases, people become dependent on substances after undertaking medical treatments with some drugs to relieve chronic pains or multiple medical problems for quite a long time. They discover that they get use to the drugs that they can no longer function without such drugs. Hengingfield (1977) in NIDA buttress this by stating that so many experts in the medical field have proved that students take drugs for therapeutic uses and continuous use leads to health related problems, ineffective academic pursuance and frustration. Yet others take substances just to keep going on their jobs or academics, for instance, truck drivers, musicians, physicians, and performance artists among others (Adeniyi, 2001). These groups of people self- prescribe to get themselves through difficult situations that they think they may not ordinarily get through.

Some people take substances to alleviate discomforts, produce feelings of well being or alter their perceptions. Olayiwola (2010) states that one of the primary causes of substance use is ignorance of the negative impacts or damages that substance use and abuse could cause. Other causes according to him are: peer pressure, rebellion, curiosity, academic failure, frustration and unemployment, genetic vulnerability, availability, accessibility and affordability. This explains that substance use has no single cause but a lot of factors are responsible for substance use and abuse. Scientists reveal that a reward pathways located in the mesolimbic area of the brain are activated by a variety of psychoactive substances such as nicotine, cocaine, alcohol among others through the release of neurotransmitter dopamine,(a common element in a continued user). Dopamine which affects the reward pathways are enhanced by psychoactive substances. The stimulation of dopaminergic reward pathways according to them is what leads to a substance abuse (Goldstein, 2001).

2.3.10 Development of Substance abuse

In Nigeria, for hundreds of thousands of years, men even during pre-historic time have used several substances for a variety of purposes. For some, to enhance their moods or performances, for some to treat one ailment or the other, yet for others, it is to gratify some pleasurable desires. The use and abuse of substances for whatever reason, is individually, culturally and socio-economically determined (Kazdin, 2012). He reiterates that substance abuse is not a unitary condition, what may be considered disorder in some areas, age groups or socio-economic status may differ from one society to another significantly. They advised therefore that it is important to distinguish between substances of use disorder, because any substance is capable of being misused and this pathological use can differ appreciably from another kind or disorders, and the effect valued by the user, also differ from one individual to another across substances.

Substances of use disorder as stated earlier are classified based on their chemical composition or pharmacological properties, whether they are legal or illegal and whether they cause disorder or not. Kazdin (20l2) posits there is nothing intrinsic to the substances themselves that sets one active substance apart from other active substances; their attributes as substances are imparted to them by users. This is to explain that though substances differ in their pharmacological and physiological actions, their use and values are individually and culturally determined. For this reason, alcohol, seeds of *bikurnawa, burkhutu* and nicotine among others though considered for use in social and recreational activities, excessive and habitual use clearly lead to use disorder particularly among students in Borno state and Nigeria as a whole.

These substances are consumed mostly on non-prescription basis and self administered for variety of reasons, for instance “to cope with adverse situations, to socialize, to conform, or to expand experiential awareness” (Grilly, 2002: 117). He asserts that some of these (social motives) appear to have little or no association with

disorder but others (enhancement and coping motives) have been shown to be productive of use disorders. Regardless of the seeming harmlessness, if they are ignored, they lead to disorder of stronger substances/drugs. Those who use substances/drugs according to Osuji (2005) are classified into the following groups

- The experiential users.
- The periodic/recreational users.
- The compulsive users.
- The ritualistic users.

The experiential users may be primarily curious and may be conforming to a group pressure either from peers or other social groups. The periodic /recreational user may use substances for fun and excitement but regular or continuous use may develop into a pattern of substance abuse where the individual user continually indulges in the use of substance. The compulsive user: - this is where the individual or substance user has developed a physical and or psychological dependence on the substances. The ritualistic users: - these are people who use substances because they believe they will induce some spiritual or religious experiences. All these patterns started from occasional use, progresses to regular pattern or intake and unto maladaptive substance abuse.

Osuji (2005) further explains that the disease model of substance abuse develops like any other chronic disease insidiously but following predictable stages. The progression into substance abuse precedes the following: The use at first, for social reasons or in company of friends and masks as a relaxing activity or sense of wellbeing. The users turn to substances as a means of escaping from stress, tension, anxiety and feelings of inadequacies and other related problems. The users' self controls as regard substances of use diminish and crave for the substances increase. As control lessens,

their work, academics, families, health and social relationships and all other aspects of their lives begin to suffer.

The pre-substance abuse symptomatic phase begins with substance being used to relieve tension and anxiety. Goldberg (2003) and Osuji (2005) shade light on the development of substance abuse, according to them substances are taken at first instance for pleasure and adaptive reasons, but at the long run turn out to be unpleasant and hazardous. According to them the use of psychoactive substances for personal gratification and temporary adaptation can carry a high price tag; substance dependence, personal disarray, predisposition to serious, sometimes fatal diseases eventually leading to sorrow and mal-adaptations.

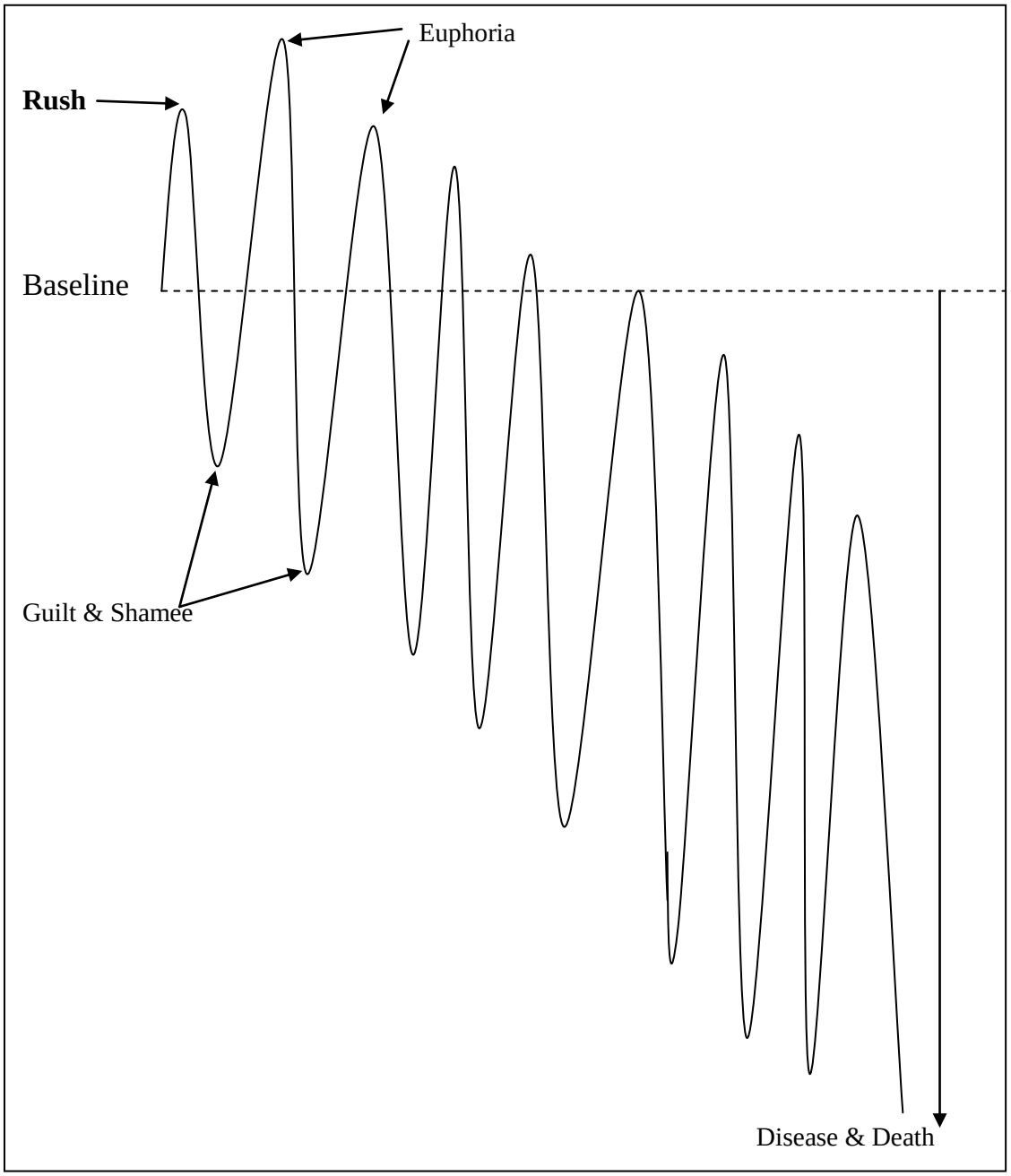
i. The second stage is the pre-droma stage. They further explained that the second stage is marked by a range of behaviours including pre-occupation with substances of use, surreptitious use and loses of memory.

ii. The third stage, which is the chronic stage, the individual loss control over substance use, this loss of control is the beginning of the disease process of substance of use disorder. The individual starts taking substances early in the morning and late in the night. Impairment in social and occupational functioning becomes manifest as the user begins to drop his/her friends. In the chronic stage, the person may begin to take substances continuously throughout the day, remaining intoxicated for several days. A withdrawal symptoms begin to appear at this stage, substances no matter the increased dosage no longer alleviate tension but lead to attacks of depression or psychosis, thinking is severely impaired and fears and pre- mores become persistent. Other complications may

manifest at this stage such as feelings of guilt, delirium and others (Osuji, 2005).

Anderson (2002) cited in www.logotalk.com represented the addiction cycle (disorder) diagrammatically thus:

Figure 2.1the Addiction Cycle



Source:Neil Anderson: The Wayof Escape, 2014.

He explained that the remedy for addiction disorder is threefold, these are:

i. stop the addictive behavior

ii. Use attitude modification towards the triggers and

iii. Use the understanding of choices, making meaningful sacrifices.

Leshner (1999) iterates that addiction is a brain disease that develops over time as a result of the initially voluntary behaviour of using drugs. The consequence according to him is uncontrollable, compulsive drug craving, seeking, and use that interfere with individual's functioning in the family and in society. He further states that using drugs repeatedly over time changes brain structure and functions in a fundamental and long lasting ways that can persist long after the individual stops using them. Disorder comes about through an array of neuro-adaptive changes and the lying down of and strengthening of new memory connections in various circuits in the brain. He reiterates that its process is a complex interaction of what the drug is doing to the brain and what the state of the brain was when one started using drugs. To effectively control addiction, the brain has to be restructured, to recognize the futility of excessive using of substances for whatever reason.

Koob (ud) explains that addiction to substances occur when use becomes repetitive causing a long lasting or possibly permanent changes in the way the user's brain experience pleasure and reward. He likened substance abuse to over drawn bank account, that is using up the supply of pleasure neurochemicals in one hump sum or bankrupting the pleasure and reward systems and once substance taking stops, no pleasure can be experienced naturally. Along this line, Maxwell (2002) emphasizes that people do not stop the negative cycle of addiction by thinking differently but by acting differently, for this purpose, people who are involved in substance abuse are encouraged to find alternative behaviour patterns by engaging in creative ventures and other extra-curricular activities. Thus, the techniques of logotherapy particularly modification of attitude and Socratic dialogue are utilized effectively for this purpose. This is buttressed

by Leshner (1999) when he states that addicts can learn new behaviours that allow them to recover from their addictions.

2.3.11.Effects of Substance abuse

Regardless of the social and recreational use and entertainment values of chemical substances, studies by Frankl (1996), Henrion (2002) and Oseji (2004) reveal that substance abuse has traumatic effects on (C.N.S). As depressants, some of the substances reduce the level of activity in the CNS and therefore depresses behaviour. When substances are consumed over a long time, especially at a high dose, they affect the individuals in several ways. The individual could develop tolerance for the substances in which case he/she needs to take higher and larger doses of the substance to achieve the desired effect which he/she has always achieved at relatively lower doses.

According to them, the user could develop psychological dependence on the substance which means there is a strong overwhelming need to use substances accompanied by painful withdrawal symptoms when the substance intake is stopped abruptly. Such withdrawal symptoms are:-nausea, vomiting, restlessness and psychosomatic pains among others. Continuous use of substances is associated with heart failure, cancer of mouth and throats, apparent decrease in brain cells, cirrhosis of the liver and high mortality rates of about 2.5 times that of non-substance abuses. Other effects include brain dysfunctions and blurred vision as well as poor quality of sleep.

Youths who are involved in substance abuse are characterized by lack of interest in friends, (except those who are into substance use), withdrawal or isolation, little interest in scholastic and athletic strivings and marked reduction in psychological activities. Substance abuse leads to traffic accidents, crimes, or violence, sexual promiscuity, destruction of lives and properties, arson, academic failures, murders,

anxiety, depression and other negative feelings (Osuji, 2005 and koob, ud). While Balogun (1998) asserts that substance disordered persons have no respect for their bodies or lives. According to him, they are slowly killing themselves by taking substances. They introduce themselves to economic loss, social damage, physical and mental ill health, family distress and break up.

2.3.12 Characteristics of One Involved in Substance abuse

Craig (1987: 31) cited in Abadinsky (2008) notes that psychological literatureexplains, "drug addicts have a paucity of major psychiatricsyndromes and neuroses and a plethora of personality andcharacter disorders''. He iterates that an extensive review of the literature on psychologicaltesting of heroin addicts found them to be hostile, demanding, aggressive,rebellious, irresponsible, playful, and impulsive. Generally, people involved in substance abuse are characterized by ''disregard for establishedsocial customs, lack of control and foresight, inability to maintain lastingpersonal commitments, and the need for unusual and varied experiences''.

> *Regardless of social class differences, substance abusers share importantsimilarities, all reveal some problems in socialization, cognitive/emotional skills,and overall psychological development, which is evident in their immaturity,poorself-esteem, conduct and character disorders, or antisocial characteristics. Typicalfeatures include low tolerance for all formsof discomfort and delay of ratification;inability to manage feelings (particularly hostility, guilt, and anxiety); poorimpulse control (particularly sexual or aggressive); poor judgment and realitytesting concerning consequences of actions; unrealistic self-appraisal in terms of adiscrepancy between persona resources and aspirations; prominence of lying,manipulation, and deception as coping behaviors; and problems with authorityand personal and social irresponsibility (i.e., inconsistency or failures in completingexpected*

obligations and persistent difficulties in managing guilt).(De Leon, 1994: 19-20).

These characteristics and many others make lives of users and those around them difficult, constitute menace to the society as whole and lead to great loss to the any nation where such is prevalent and the calls for all efforts to control or minimize its occurrence.

2.3.13. Prevalence of Substance abuse amongst Secondary School Students

Mangal, (2005) states that the greatest joy of most teachers is to see that knowledge is imparted to the students, and the students use this knowledge to help themselves and the society where they belong. At any point in time they are frustrated, such as in the cases of students' unrest under the influence of substance abuse in Borno state, teaching is disrupted and teachers are incapacitated.Many researchers have conducted various studies on different aspects of substance abuse, and despite the variations in their findings, the results show that it is a menace in many nations of the world. It is a problem that has spread its tentacles in every institution causing havocs to the users and those around them and a great source of economic lose to the government both in terms of human and material resources.Substance abuse is a universal phenomenon that cut across all levels or strata. It is no respecter of age, sex, religion, ethnicity, or nationality; however, greater percent of those that fall prey to this nefarious scourge are the youths. The fact that youths represent the future workforce and leaders in any society makes it necessary to find lasting solution to the drug phenomena (Jibrin, 2014). The use, abuse and use disorder of substances by secondary school students is a global issue that requires urgent attention.

Substance abuse extend across socio economic, cultural, religious and ethnic boundaries and despite the efforts of the various Nigerian tiers of Government and The

National Drug Law Enforcement Agency (NDLEA) to stem its tide in the country, there has been a consistent rapid rise in the number of cases especially amongst the young adolescent of 10-24 years old (Whichsrom and Hegna, 2003).They further state that substance use and abuse (leading to substance abuse) is a global health problems with conditions that vary locally. According to them, the use of psychoactive substances among adolescents and young adults has become a subject of public concern worldwide, partly because of its potential to contribute to intentional and unintentional injury. Substance abuse has been the cause of so many behaviour problems among Nigerian students particularly at the secondary school levels with the attendant consequences of indiscipline found among Nigerian youths today.

In a study conducted by Makonjula, Daramola and Obembe (2007), it was revealed that there is high prevalence of alcohol, tobacco and mild stimulants use in Nigeria with 3 8.0%, 27% and 67.9% respectively with males reporting more use than females in all the categories. Bulus and Rimfat (2001) state that substance abuse and alcoholism specifically among Nigerian students constitutes one of the major social and academic problems in schools in the 1980s and 2000s.

The 2008 NSDUH estimated that 28 .4% of the United States population of l2years and older are current users of tobacco products. Adolescents, age 12-17 years reported rate of 11.4% of current use of tobacco or its products. It was found out that boys were more likely to use tobacco than girls, with range of 12.6% versus 10.2% respectively. American-Indian adolescents reported the highest rate of tobacco use (22.0%) and Asian youths, the lowest rates (4.4%) of all racial groups (Gelhert and Browne, 2012). The study revealed that a rate of use among gender and racial groups in age 18-25 years varied similarly to those seen among adolescents; men used it at rate greater than women (48.8% verse 3 3.8%) respectively.

The same finding reported African- American young adults having the lowest rates of current use (20.0% and 3 0.7%) respectively. American- Indian and white American reported the highest rates of current use (52.8% and 47.5%). NIDA (2010) reported that tobacco use and nicotine consumption is the leading preventable cause of disease durability, and death in the United States. “Approximately 8.6 million Americans suffer from at least one serious illness caused by smoking and annual estimate indicates that smoking is possible for economic loose of 75 billion in excess of medical expenditures” (Centre for the Disease Control and Prevention) [CDCJ (2004). In the United States, smoking remains the single largest preventable cause of adverse pregnancy outcome (shiona et al, 1995) cited in (Geihert and Browne, 2012).

In rural Nigeria, study by kawoyin et al (2005:355) reveals “tobacco and kola nuts use (nicotine use disorder) have been found amongst students in secondary schools”. In the same vein, Ndom et al (2002) reported the use of tobacco alongside with other psycho-stimulants among students in both urban and rural areas in Nigeria. In the same vein, Maigari, Mosaku, Umar, Kever, Dalhatu and Dathini (2014) report that cannabis is the most commonly used illegal substance and accounts for an estimated 80% of illicit drug use Worldwide. According to them, people use substances for different and complicated reasons but it is clear that our society pays a significant cost. In the words of Watson (2002) cited in Maigari et al (2014), the ever increasing health; social and economiclost related to substance consumption have become a major public concern, that in the last century, the World has witness an alarming increase in the number of people ruining their lives as a result of drug addiction. The U.S. dept of Health and Human Service Administration in 2007 estimated 20.8 million people in Nigeria that require treatment services for substance use problem but had no access to it

(SAMHSA,2008). This calls for all hands to help youths and all who are involved in substance use and disorder out of this predicament.

2.4. The Concept of Psychotherapy

The word psychotherapy has been defined by many psychologists in various ways depending on their perspectives, but the central theme remains helping a psychologically disturbed person to readjust and live a more fulfilled life. Psychotherapy is the treatment by psychological means of problems of an emotional nature in which a trained person deliberately establishes a professional relationship with the patient with the object (1) of removing, modifying or retarding existing symptoms (2) of mediating disturbed persons of behaviour and (3) of promoting positive personality growth and development (Bagudu, 2009). Similarly, Sharf (2007) defines psychotherapy as treatment of individuals with emotional problems, behavioural problems, or mental illness primarily through verbal communication. This definition identifies not only the types of problems in focus but also the mode of treatment, in this case verbal communication.

Wagnaills (2006) posits that psychotherapy involves treatment of mental or emotional disorders using psychological techniques (of which logotherapy is one) that heavily rely on verbal and emotional communications and other symbolic behaviours. Santrock (2003) defines psychotherapy as a process used by mental health professionals to help individuals recognize, define and oversee their psychological and interpersonal difficulties and improve adjustments. Psychotherapists use different ways to achieve their goals of assisting disturbed people get meanings in their lives. According to him, the strategies include ‘talking, interpreting, listening, rewarding and modeling’. Some approaches are based on behavioural and social cognitive theories of learning; the remedy therefore involves replacing the old behaviour for new ones or over riding the

old habits. They emphasize reduction of troubled behaviours which are overt and observable as opposed to hypothetical behaviours underlying causes such as unconscious thoughts and wishes (Gleitin, Fridlund and Reisberg, 2004). They emphasize current behaviours or activities that cause distress to the individual, their target of treatment is the immediate maladaptive behaviours which substance abuse disorder is one, and they stressed that the behaviour must be treated or removed for the person to regain good health. In another words, substituting the negative behaviour with a positive desirable one that enables the person to lead a more fulfilled life. It involves helping people to understand their emotional lives and finding ways to improve their lives and live a more fulfilled and adaptive lives. Among the approaches a psychotherapist uses are: humanistic, behavioural and cognitive therapies among others.

2.5. The Concept of Logotherapy

Logotherapy presents meaning oriented psychotherapy Propounded by an Austrian neuropsychiatric and Holocaust survivor, Victor E. Franki (1905-1997). It capitalizes on people's will to meaning in any situation as a reason for persistence in the face of any threat or challenge rather than their will to power or pleasure. It is a therapy through meaning, a type of therapy intended for normal men and women who seek to regain their noogenic perspectives and emotiona1 health. It believes in the power of freedom to find purpose and believes that whatever happens, human beings have the ability to deduce what is happening, why it is happening and why they exhibit certain reactions to the situation. Franki iterates that freedom does not mean actual freedom from physical or psychological limitations, but the freedom to understand and willfully make choice or decisions.

The word logo comes from Greek word which denotes 'will' to meaning. Kazdin (2012) states that logotherapy is a therapy which heals through meaning. This means

unless a client understands he has a problem, exposed to his ability and potentials to rise above his problems and make a decision to change, there is not going to be a meaningful and sustained change. Deville (2002) defines logotherapy as a World class psycho-noogenic system for winning a satisfying life for people who apply a pragmatic existential psychology and mystical philosophy in the best approach to living, loving, labouring and leading well, as yet identified by the human race. While Guttrnan (1996) states that in logotherapy, life has a purpose under all circumstances, during the most benevolent and even the most unfortunate times. It is defined by Iwundu (1991) as a therapy that helps the physically, psychologically and noogenically disturbed individuals find purpose in their existence and derive lessons from their sufferings. The lessons derived help clients change their behaviours and attitudes and gain control over their lives. According to Nelson-Jokes (2001), Logotherapy is a therapy that assists clients by teaching them the importance of assuming responsibility for meaning, helping them to listen to their consciences, asking them meanings, broadening their horizon about sources of meaning through Socratic questioning and other principles. By doing these things, one becomes aware of the inherent potentials within him/her, therefore uses it to determine the type of life to live. Logotherapists do not deny the fact that certain situations such as terminal diseases, family background and others are beyond ones' control but emphasize that one can adopt positive attitude toward such and still live meaningful life. Franki posits that although man is subject to biological, psychological and sociological condition, his freedom is finite, that is, he is free to take a stand against these challenges.

Frankl believes strongly that, the conditions around man do not completely condition him, because to some extent, it is up to him whether or not to succumb and surrender to the conditions. According to him, man is not subject to these conditions that

confront him, rather the conditions are subjects to his decisions, wittingly or unwittingly, he decides whether he faces up or gives in, whether or not he will let himself be determined by the conditions. Kazdin (2012) iterates that Logotherapy sees the situation of suffering as the opportunity to actualize one's values, including 'attitudinal values', meaning, and the attitude taken to the suffering. Frankl states that what counts and matters is not our fears and anxieties, but the attitudes we adopt toward them, the attitude however is freely chosen. As buttressed by Arnold (1954:40) cited inwww.logotalk.net (2013), "choices are caused but they are caused by the chooser". That is to buttress the philosophy behind Logotherapy that man has the innate potential and the freedom to choose which pattern of life to live. What Logotherapy focuses on is broadening the understanding of the client toward the choice to make.

The principle behind logotherapy is that clients have freedom of choice and it works through cognitive restructuring of one's negative beliefs. It aims at providing conditions that will help clients develop psychological strength to evaluate their present behaviour and see if it meets their needs. Lucas (2001) asserts that it is a humane, straightforward, pragmatic, and theoretical approach that makes a practical difference in people's lives particularly those who desire to quit from their negative behaviours. This approach teaches one that it is only one's own behaviour one can effectively control, that is by choosing what to do.

Correy (2008) States that members can more easily choose better behaviour if they come to realize that what they are doing, thinking and feeling is not simply happening to them but that they are, indeed, making choices. This therapy though recognizes the influence of past experiences on behaviour, believes that the past is over and cannot be changed, so the present is confronted, and a solution to the present is sought. Rather than focusing on what is wrong with us, we focus on what is right with us

and what is good about life (Frankl, 2000). He further emphasizes on our capacity to respond to meaning potentials of aversive situations through our affirmative and optimistic responses to events which can help us transcend negative forces and live meaningful lives whatever our circumstances may be. The clients are taught to value the attitude of accepting responsibility for their total behaviours and emphasizes that excuses are a form of self-deception that may offer temporary relief but ultimately lead to failure and to the cementing of a failure identity. Logotherapists assist clients in discovering their wants, hopes and dreams.

Logotherapy is more concerned with the attitude of the client toward the symptom than with the symptom itself, for it is the attitude that is more pathogenic and not the symptoms. According to Frankl, Logotherapy attempts to orient and direct clients toward concrete personal meaning to enable client find meaning, to broaden, so to speak, his visions, so that he will become aware of the full spectrum of possibilities for personal and concrete meaning and values. Historically, one of humanity‘s prevailing concerns has been creating institutions, situations, beliefs that gives life a sense of purpose, predictability and comprehensibility, for instance religion and belief systems express ideas of how the World came into being, cultural rituals lend predictability to the calendar year, and symbolism that drives language and human expression that creates and disparate elements of life into understandable whole (Orien, 2007,).

He further states, the Psychological studies of meaning of life is the study of processes that lead to peoples’ perceptions of purposes and comprehensibility of their lives. When people strive to give their lives meaning, they perceive challenges as opportunity to grow and contribute to the course of humanity. With this focus, they circumvent all circumstances that come their way. Logotherapy attempts to restore a sense of meaning by encouraging meaningful and creative activities and experiences of

art, nature and culture; and encourages self acceptance and an appreciation of one's place in the World by a close study of one's attitudes to work, love and life in general using its different techniques to achieve self fulfillment (Coleman, 2003).

Frankl, the founder of logotherapy served in four different Nazi concentration camps and later worked as a Psychiatric doctor amongst the inmates. He was taken to the concentration camp alongside with his father, mother and wife, but were later separated from each other to different camps. In the concentration camp, he lost his father, mother and wife except for his sister whom he knew nothing about her where about. He lost even the manuscript of his first work which he tried hard to protect. After losing everything, and facing the bitterness of life's challenges, he concluded that even when one has lost everything, despite all challenges circumventing man, life still offers something that is worth living that is, freedom of choice and ability to be responsible for the choice one makes. This belief was what kept Frankl going.

He believes that the life one possesses is one thing that no one can take away and therefore worth living, and that one can make the best out of it. Ailport exclaimed, How could he-every possession lost, every value destroyed, suffering from hunger, cold and brutality, hourly expecting extermination—how could he find life worth preserving? Yet Frankl Stated that a meaningful and responsible life starts at a point where through pain and suffering, man is freed of his selfishness (DeVos, 1995). He emphasizes that after facing traumatic challenges, one learns lessons from these experiences that make one rise above challenges. He iterates that like gold, one is made stronger, more courageous and resistant when faced with difficult circumstances when one maintains focus. He held unto the sayings of Neitche that 'if there is any purpose to live, one can survive any how', this according to him helped him survived the trauma of the concentration camps

came out victoriously compared with thousands that that gave up hope and consequently died in the concentration camp.

Based on these, Frankl proposed Logotherapeutic approach to modify maladaptive behaviours of which substance abuse is one. Logotherapy is a therapy or behaviour modification approach that focuses attention on values of life, it emphasizes that finding purpose in one's life is the primary motivational force in man, that man spends greater parts of his lifetime finding fulfillments, defining and redefining his/her own values subjectively and attaching meaning to it. In situations where one lacks purpose in life, maladaptive behaviour, such as substance abuse results. Napok and Rao (2007) assert, that

> *The philosophy of this approach is that, the significance of our existence is never fixed one for all, rather, we continually recreate ourselves through our projects. This means man is in a constant state of transformation, emerging, evolving, and being a man implies that we are discovering and making sense of our existence.*

Early theoretical work argued that people were endowed with innate tendency to search for meaning in their lives; this reflects peoples' desire, significance, and purpose of their lives (Orien, 2007). Unfortunately, many people who are searching for meaning find their lives relatively meaningless. Whereas others consider the search for meaning to be a lifelong process and continue to create and recreate their environments to provide them with the type of life they so desire. In this process of creating and recreating the environment, many people experience disparity between their real selves and the ideal selves leading to psychological disorders such as substance abuse.

Developmental psychologists assert that each individual is characteristically a unique social being, having his/her own physical, psychological and philosophical values, attitudes, expectations, beliefs and choice. Based on these variations, logotherapy emphasizes freedom of choice but asserts that one should be responsible for whatever choice one makes. He further states, whether any circumstance, be it inner or outer ones have an influence on a given individual or not, and in which direction his influence takes, it may all depend on the individual's free choice. Franki (ud) cited from www.logotalk.com (2012) explains that:

> *There is nothing conceivable that would condition a man wholly, that is, without leaving him the slightest freedom. The conditions do not determine him but he determines whether to yield to them or brave them, according to him, man is never fully conditioned in the sense of being determined by any facts or forces. Rather, man is ultimately self-determining, determining not only his fate but even his own self for man is not only forming or shaping the course of his life but also his very self, Instead of being conditioned by any condition, he is rather constructing himself.*

This explains the nature of man as purpose driven and will directed, that is, man is pushed or motivated to action either by intrinsic or extrinsic goals and therefore no condition is too harsh as to disposes him of his freedom of choice in order to achieve his goals. Logotherapy is therefore a tool that helps children and adults change their behaviour and attitudes positively, thus gaining control of their lives in order to decide on particular course of action to achieve his expectations (Hishi, 1995). It is founded on three basic tenets which are: -

1. Each individual has a healthy inner core, and that life has meaning under all circumstances, even the most miserable ones.

2. ii. The primary focus is to enlighten a person to his/her own internal resources and provide him with the tools to use their inner core, and that our main motivation for living is our determination to find meaning or purpose in what we do.

iii. Life offers individuals purpose and meaning, but it does not owe individuals a sense of fulfillment or happiness (Frankl, 1996).

This means, it is inherent in everyone to live a happy and responsible life but the choice also lies in him/her, whether to make informed choices or not depends on individuals. Logotherapists do believe that in the process of human growth and development, one is surmounted with a host of difficult but rewarding choices that gives life meaning. In this process, there is tendency to have wrong choice, when this happens, one become frustrated, trying to gain meaning in the opposing direction. This wrong choice leads to inner conflict which disorganizes one and results to boredom and emptiness, which according to them is one of the causes of maladaptive behaviour such as substance abuse. Logotherapy teaches clients to understand that life has no meaning unless one creates it and that each person has the ability to assign meaning to his existence by authentically being whom he/she is.

One idea of logotherapy is that, it is inherent in man to rise above any situation, be it physically, socially, emotionally, psychologically or otherwise, if one chooses to. Clients are encouraged to have this awareness no matter the intensity of their problems. To them, the quest for meaning in life is not only the primary intrinsic motivation for life expansion, but also a powerful capacity for personal transformation. It is therefore, left for individuals to create their subjective world in which meaningful life is found. Lukas (1981:116) retrieved from www.logotalk.com posits ‘inner fulfillment develops when the

client perceives his action as being worthwhile and appropriate which is the meaning of the moment". That is to say, one has to experience, feel or attach a meaning to something or someone by perceiving its value in order to feel happy or fulfilled. Once one sees value and purpose in one's condition, attach a meaning or purpose to the situation, the person will be competent and efficient to handle one's negative and destructive behaviour which makes life worthless.

Guttman (1996:126) buttressed the above when he states "people can lead self-fulfilling lives if they acquire confidence in themselves, if they are willing to say 'I can' rather than 'I cannot' to the task at hand". This is exactly what logotherapy posits, to help clients develop confidence in their abilities and restructure their cognition from the attitude of self defeat to self transcendence. When confronted with adverse situations, we find meaning in readjusting our attitudes and perceptions toward the potentially adverse situations. Those who see meaning in their suffering, who justify some happenings, and those who attach meaning to someone, work or something in a given situation are more competent and efficient to handle these situations. Frankl (ud) explained that while in the concentration camps, people who have reason to live, held on to their reasons and pressed forward amidst the harsh situations in the camp and survived. People who have less reason live grieved over their conditions, developed apathy and died in the camps.

Logotherapy opens up clients to the fact that man in the process of growth and development may face a lot of challenges that makes him want to give up hope and believe that life is not worth the suffering, but in spite of all difficulties circumventing man's physical, social, emotional and intellectual development, man can still become what he wants to be because life is all about choices. In other word, man is a product of his choice; that is one chooses what he or she wants to be and at any time one desires to change ones' behaviour, attitude toward certain things or way of life, one can readily do

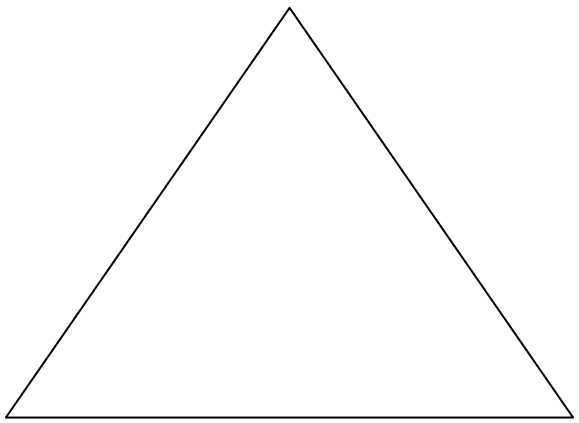
it. Logotherapy is a humanistic therapy committed to the development of potentialities and goodness inherent in man. It assists clients to overcome their sense of alienation, and ambivalence, develop sensory, intellectual and emotional awareness to express their creativity and become fully alive, living as responsible and authentic human beings. Another tenet of logotherapy is the freedom of choice and ability to be responsible for whatever choice one makes. Clients are encouraged to choose their own goal, to make informed choices that are self-enhancing.

Bandura, in his self-efficacy theory emphasizes the importance of "power of you can', stating that 'you can' accomplishes what you want to accomplish and tat; this is one of the most important ingredients in the recipe for success" Maddux, 2002:277)'. This further stressed logotherapeutic message to human race which are two folds:

1. It shows freedom to act which exist under all circumstances, the "I could"
2. It helps to find the meaningful goal of a certain action, the 'I should'. The 'Icould' and '1 should' add up to the person's responsibility to act in a meaningful way. Logotherapy strengthens person's voice of the conscience (Croumbaugh, 1988) retrieved from www.logotalk.com (2013). In Logotherapy, human freedom is freedom to accept responsibility for fulfilling meaning within the confines of death and destiny. Frankl (1985) explains that self-transcendent, in which people reach out for meaning beyond them, is an essential characteristic of human existence. According to him, "existential vacuum occurs when people suffer from inner void and lack of meaning in life. When this happens, the 'will' to meaning is frustrated and existential frustration results. He further asserts that existential vacuum is not in itself neurotic, but can lead to noogenic neurosis. Citing Nelson-Jokes (2001), humanity

is becoming more neurotic and the mass triad (depression, addiction and aggression) is on the increase in our societies. Frankl proposed the triad dimension of human life which include the body, (physical), the psyche (the psychological) and the intuitive (noogenic). Pelt (2001) buttresses this by saying that we are humans because of our human intuition that embraces body and psyche and make us whole. The triad dimension of man is diagrammatically presented below:

Figure 2.2: Psyche (the psychological Dimension)

Intuitive (noogenic)  Body (the physical)

Source: Frankl, the Way to Meaning (2013).

Frankl explains the triad dimensions as:

1. The intuitive dimension as containing the philosophical issues of life.
2. The psychological dimension as containing the psychological and sociological issues of life.
3. The body, the physical dimension as containing the physical issues of life.

He emphasizes that the three levels have to be integrated for a balancedbehaviour to occur. At any point in life a dimension is affected,disequilibrium is created and the

individual is disturbed. Ras (2000) explained that the body, psyche and the intituitive dimensions (the three dimensions of the human being) are closely interwoven, and each affects the others. According to Guttmann (1996) if the therapist ignores or disregards the interrelationships among them, he may cause neurosis or harm to the client, at the same time, any change in a positive direction in any of the three dimensions of body would provide opportunities for growth. A therapist therefore must strive in his effort to guide clients to ensure that whatever method he/she uses must consider these dimensions.

Logotherapy uses different techniques to achieve its goals. These techniques are: Dereflection, modification of attitude, paradoxical intention, logo- drama, Logo-anchor, Socratic dialogue, and others. For the purpose of this work, the modification of attitude and Socratic dialogue principles will be used.

2.5.1 Modification of Attitude Technique:

Modification of attitude is one of the techniques used in logotherapy to guide clients into birth of new meanings into their lives. It modifies behaviour by causing a shift in attitude, to see the past as not a source of weakness but strength. This may start with the realization by the client that attitudes are not determined by the situation but by the person (Ras, 2000). Frankl emphasised that the same situation in which one finds himself/herself can be interpreted by another person differently. He reiterates that the attitude one takes toward events influences psychological health, or it may lead, if it is negative, to sickness. Guttmann (1996) correctly pointed outthat people can lead self-fulfilling lives if they acquire confidence in themselves, ifthey are willing to say "I can", rather than "I cannot", to the tasks at hand.Frankl's emphasis that, "He that has a why to live can bear with almost any how,"underlines an important fact; that is that those who see meaning in their suffering, orthose that attach meaning to someone, or something, in

a given situation, will be more competent and efficient to handle those situations, than those who are stillmoving in their existential vacuum and do not see/do not find any meaning, in where they are/or what they do (Ras, 2000).

This is done by assisting clients to have a cognitive restructure of situations around them, and to view the presumed negative events as positive, which make clients better people. Kazdin (2012) posits that when people experience something out of the ordinary, their responses to the situation will be based on their value system which will influence their attitudes; aaccording to Correy, attitude towards any situation is more pathogenic than the actual symptom that situation will give rise to. It is in these situations that healthy attitude will help them to keep on living meaningful and purposeful lives. Frankl however explained that accepting negative situations in one's life does not necessary mean apathy or rationalization but understanding thatthere is a way forward in every situation. This way forward; minimixing the negative thoughts and consequences of the past, help the client to press forward holding unto new and positive alternatives. This is like accepting the fact that there is always a plan B when plan A fails. This alternative plan may sometimes prove better than the original plan.

In modification of attitude technique, meaning can be found in all circumstances depending on person's perception and frame of mind regarding the situations confronting him/her. According Kazdin (2012), human beings by the very attitude he chooses is capable of finding fulfilling and meaning in even hopeless situations. Frankl emphasizes that despite biological, psychological and sociological facts and factors, social environment, heredity endowment, and instinctual drives that can limit the scope of man's freedom in them; they can never totally blur the human capacity to take a stand toward all those conditions, to choose an option. Clients are encouraged to have positive attitude toward whatever circumstances and forge ahead. They are made to understand

that their thoughts and languages if negative need to be changed to positive ones. Like cognitive restructering therapy, clients are opened to the facts that things that have already happened (lost of loved ones or property to natural disasters) and things without remedies should not be so much regarded (family backgrounds, disabilities and limitations) and move on with their lives looking at these challenges as call to move ahead in another dimension which they have freedom to choose. Lukas (1991), states that every attitude modification aims at a stronger, more improved and more ethically valuable and helpful attitude. Through modification of attitude, clients who are involved in substance abuse are encouraged to adopt a desirable attitude toward themselves, dereflecting themselves from whatever cause that led them into taking substances and make conserted efforts to choose positive cause of action toward the challenges other than substance use. It stresses here that, meaning can be found in all circumstances, even in what seems hopeless depending on person's perception and frame of mind regarding the situations.

Frankl admitted that finding meaning in a situation that in itself is meaningless, such as an incurable disease, or an involuntarily ending of acareer, or addiction, is not easy. But it can be attained by logotherapeutic technique of Modification of attitudes which helps clients to turn from the negative, self-destructive, and pathological attitude toward constructive, life-enhancing endeavors (Ras,2000).This emplies that the therapist cannot prescnbe different attitudes to life, but can suggestsome aftertrust is established. He/she can help the clientto differentiate between healthy andunhealthy attitudes, and can attempt, at least, to influence client's behavior, thinkingand feeling (Guttmann 1996).

Modification of attitudeaccording to Ras (2000), as a logotherapeutic technique meansthat the therapist usesknowledge, experience, and even intuition in

assessingwhethera certain attitude displayedbythe client is harmful or not. Whenthe therapist discovers negative, dangerousand destructive attitudes on the part ofthe client,he/she does not shy away fromopenlydiscussing them. The therapist does not concernhimselfwithjudgments of"good" and "bad" attitudes. Rather, he seeks to weigh whetheror not an attitude ishealthy. In cases where attitudes are self destructive, such as substance abuse, clients suggest possible ways to quit such attitudes allowing the client freedom of choice the course of action to take.

GeorgeKelly's cognitive-construct theories which is closely related to Modification of Attitude technique both agreed onthe strongly emphasized abilityof human beingsto change, they explained that people comprehendtheir worlds through transparent patterns or constructs, which means thatthey interpret experiencesin the light of the specific construct that they use and will confront "these constructs" if they are of the opinion that the client is using the wrong construct (Ras, 2000). He reiterates that Modification of Attitude technique is strongly committed to address cognitive issues like "wrong thinking" and/or "cognitive interpretations" to more positive ones.

Abraham Maslow and others from the humanistic personality-psychological point ofview, who strongly believe thatpeople are capable offashioning their own lives, welcome the idea ofFrankl thatpeople are confrontedthrough Logotherapeutic techniques to change. Personality change(including the removal ofnegative and problematicsymptoms) comes into existence and to the fore when people start moving toward the actualization oftheir potentials (Ras, 2000) after being exposed through Logotherapeutic techniques to the fact that they posses the power of change within them.

2.5.2 Socratic Dialogue Technique:

Socratic dialogue is a Logotherapeutic technique in which the therapist uses the clients' own words as a method of self-discovery into his/her problems. It is believed that by listening attentively to what the client says, the therapist can point out the specific pattern of word solution to client's problem. This will enable them realize that answers to their problems lie not outside but within themselves. This dialogue is regarded as logotherapy's main tool in helping clients get in touch with even their repressed emotions. Ras (2000) explained that this communicative dialogue includes self-introspection, self-discovery, choice, uniqueness, responsibility, accountabilityand self-transcendence, according to him, theimportance in this communication setting lies in the exchange ofverbal and non-verbal information between the logotherapistand the client. He further states that in the therapeutic discourse, the therapist's emphasisis *interalia* on understanding of what lies behind the words used by the client and has to do with the whole interpretative-process that reveals the real symptoms/problems of the client. The essence here is to use language as the talking cure to effect some changes in the client's thinking, perception,attitude and understanding (Guttmann 1996). It does not feed clients with information but elicit intuitively from client's previous knowledge. This when properly utilized, facilitate change and modify behaviour through deep psychological, emotional and physical awareness. Parrott (2003) States that skillful questioning allows the therapist to enter the clients' world, where they can gather important information that help clients take more effective control over their lives.

It is assumed that this technique is ideal for such psychological disorders like substance abuse; which requires that clients understand the magnanimity of their behaviours, see their shortcomings and rediscover the solutions to their problems within them by the help of the therapists. Socratic dialogue is a tool or a techniquefor self-

discovery. It helps the person seeking help (client) get in touch with his noetic unconscious. It enables him/her tobecome aware of his/her inner powers that are hidden from him/her, it directs him/herfinds meaningin life, it enables him/her to review his/her past experiences andenvision the future, it brings up forgottenpeak experienceswhich were once meaningfulto the client and it provides opportunities for the client to reassess his presence,his power and capabilityto deal with the problem he/she faces (Ras, 2000). He reiterates that this dialogue is built upon Frankl's notion that meaningis found within usand that the therapist is a teacher and a facilitatorofchange, rather than an authoritarianfigure. This methodis a teaching technique. It teaches the client how to use hispower, fantasy, dreams and caring for another person to find meaningin life. Thistechnique is based on questions asked by the therapist, similarto the question-answer method used by Socrates.

Frankl (ud) asserts, through effective communication between the therapist and the client, the meaning of being and life purposes are discussed, examined and explored. Using this tecnique, it is hoped that asking enough of the right questions can actually bring change in one's belief system thereby influencing the person's behaviour. Ras (2000) posits that Socratic dialogue aims at heightening the self-awareness of the clients, to make them conscious of their freedom of choice especially as it relates to their present situation. To learn about the clients' feelings, Guttmann (1996) explained that the therapist asks such questions as: What did you do in that situation? To learn about the client's decision making concerning values, judgments, and actions, the client asks the therapist such questions as: What do you thinkthepresent situation demands from you? The dialogue aids the client become aware ofa commitment to being responsible for his/her own life and actions. It urges him/her to lookdeeper than the surface and to discoverwhat is hidden from the eye.He reiterates that Logotherapists, like any other

therapist, employ empathyin working with the clients.The logotherapist and client form an alliance to search together for exit from the client's state offrustration and emptiness or any form of behaviour disorder thatmight have resulted from his present situation. All Socratic dialogue techniques aimed at assisting clients discover a new potential within the c lient that might have been overshadowed. According to him, the logotherapist does not shy away from confrontationwith the clients ifnecessary. The confrontation ends when the client becomes independent of the therapist, whenhe/she has gainedself-esteem, andhasbecome fully adjusted person.

To discover meaning through Socratic Dialogue technique, logotherapy differentiates amongthree types of suffering, namely: that whichis associated with an unchangeable fate;that which comes as a result of an emotionally painful experience; and that whicharises out of the meaninglessness ofone's life (Ras, 2000). All these could affect a person and lead to behaviour problems such as substance use if care is not taken.

Thefirst of these challenges according to him needs to be accepted by the client as something thatcannot be changed - something that fate had brought uponthe individual but that which do not constitute disability. Simplyput, there are certainthings thatno one can change. Acceptthis as *efait accompli*.Kimble ~ Ellor(1989) in Ras (2000)*gave* illustrations of this type of challenges *where one has to adjust and forge ahead not to rationalize or feel sense of apathy but as things that donot have remedy: such include:* getting oldand sick; losingyour spouse,friends and loved ones; the loss of a limb;or an incurable disease. In the other two types of suffering, he explained that problems in the family, harassments in work or at school, personal failures and other difficultiesmight also be sources of worry that might constitute behaviour problem. The clients are encouraged to accept such events other wise it mayresult in a constantunhappiness and suffering.In this situation, Socratic dialogue technique aims at reconciling clients with

one's fate, and helpsclients to recognize one's freedom in this situation. This freedom lies inchanging theattitude towardwhat was;or what is unavoidable, from a negativeperception intoa positive channel, the Socratic dialogue can help peoplemake choices:

In Socratic dialogue technique, knowledge is not poured into clients, rather it is drown. Ideas and suggestions; where necessary, are given to clients by the therapist as they interact. Kazdin (2012) gives five points structured model dialogue thus: self discovery, choices, uniqueness, responsibility and self transcendence. These according to him help clients develop self awareness, search for creative solution to discover what is special about their experiences, know their responsibilities and find ways to help themselves and others in similar situation to their own. This when properly utilized, facilitate change and modify behaviour through deep psychological, emotional and physical awareness. Parrott (2003) States that skillful questioning allows the therapist to enter the clients' world, where they can gather important information that help clients take more effective control over their lives. Socratic dialogue technique helps in shifting clients from despair and sadness to hope and joy and loosens up their understanding of who they really are.

2.6 Relationship between Substance Abuseand Logotherapy

Substance abuse has been attributed to personal or intentional act of experimenting substances for euphoric feelings associated to it by individuals. Meliosh (2003) cited in Abadinsky (2008) posits that while peer pressure plays a role in substance abuse, the most significant factor is personal choice and the desire to experiment. He discovered that the dominant factors for initial substance use were personal choice and curiosity; external influences and a desire to conform were mutually exclusive and would often interact as part of a complex dynamics.

Logotherapy being a type of therapy of healing through understanding of the reason or value for one's life has as a basic tenet the fact that all human beings have the inherent potential to rise above challenges that might confront them. This therapy strives to mobilize the defiant power of human spirit in addressing the human condition both clinically and meta- clinically. Kazdin (2012) posits that lack of purpose leads to existential vacuum which becomes a breeding ground for potential neurosis; these neuroses include substance abuse. Logotherapy emphasizes that the universal drive toward life's meaning when frustrated leads to behaviour problems.

The major relationship between logotherapy and substance abuse is the fact that both have choice as a leading factor. While substance abuse involves free will to the involvement into the act, logotherapy also emphasizes on freedom of choice of behaviour. Most therapists agree that a major treatment modality of substance abuse must include willingness to change which is a choice on the part of the client to change. Logotherapy provides a substance abused client with an opportunity to strategically zoom out to reset his or her existential compass, to place both substance abuse and recovery in the trajectory of one's life journey, to resuscitate the anesthetized and deadened will- to-meaning on the hope of giving recovering more tactical importance (Sornon, 2007).

Another relationship is the fact that when people feel or experience meaninglessness or the feeling of hopelessness in life, one loses focus and one of the consequences may be behaviour disorder such assubstance abuse. The two are like the two sides of a coin, and they have cause effect relationship. Washer (2006) strengthens this by stating that the feeling of meaninglessness and dread can spread like an epidemic and is not unique to classrooms along but to any situation where human beings interact, this according to him may lead to substance abuse among students. That is, while many

researchers into substance use attribute substance abuse to inability to cope with circumstances of life, others belied that substance abuse is actually the cause of the inability to cope with circumstances of life. In another word, if students or individuals understand that they have the inherent potentials to create meanings in their lives; it will reduce personal conflicts and boredom which in turn reduces substance abuse.

Logotherapy shows that until one understands himself, his abilities and competence, choose to use them, he will have no meaning in his existence. When an individual understands this and is motivated to change, changing becomes effective. So also, a substance abuseed client must be willing to quit his/her substance use behaviour before effective changes occur. This is buttressed by Richmond et al (2003) when he posits psychotherapy is only appropriate for those motivated to make a quit attempt, it must be offered with behaviour therapy approaches which logotherapy is very appropriate. According to Agwogie (2008) psychotherapy is well suited in situations where the therapist has substantial control of the person's life as in hospital ward and classrooms and behaviourally troubled children which are still young enough to be in the formative years; making logotherapy very relevant approach to management of substance abuses over other treatment approaches.

Alvarado (2011) states that everyone has the innate tendency to choose how to live his//her life. In his own wards that regardless of one's problems, genes, past and what he had seen alone or had learned, like us all-still have the ability and opportunity to choose differently that is, he has free will. This means no matter the level or degree of substance abuse, the individual made the choice and posses the ability to withdraw or quit at anytime he/she decides. Logotherapy concentrates on the undesirable behaviour, in this case substance abuse, confronts it and helps clients to restructure their cognition

about their problems and encourages them to use the new cognition which is often a desirable one.

Several studies by Frankl and his associates reveal that unless one understands that he has the will power to rise above his problems, he/she will continue to dwell in his/her negative, destructive and pathological attitude. Once one involved in substance abuse understands this and is ready to take responsibility for his behaviour, the process of healing starts. According to Fiona (2009)

> *When one chooses behaviour, acknowledges its outcome, one is also holding oneself accountable for that outcome, whether the outcome is achieved or not. He further explains that personal responsibility is concerned with people taking individual accountability for their decisions, and actions, together with the outcomes they create their impacts on others. It is all about the feeling that one is the author of one's own life, accountable for the life that he creates and the impacts caused through one's decisions and actions, both on oneself and on others.*

Both logotherapy and substance abuse share in the above belief. The relationship here is that while Logotherapy believes in personal freedom of choice, substance abuse is also a result of free will, as well as a decision. Unless one involved in substance abuse looses his/her ambivalence, decides to change, sustained change becomes almost impossible. Logotherapy provides the will power and decision to change through exposition of individual potentials and ability to raise above all human circumstances. Alvarado (2011) posits that the mind works against us, and all things are as we imagine it, unless we have self-will and self-confidence and trust our ability to change (especially from substance abuse), to desirable, more adaptive behaviour, change will be too hard and almost impossible.

This explains the power of 'I can', discussed earlier on. To this end, clients are encouraged to think positively. Maxwell (2002) asserts that though one cannot stop the thoughts that come to one's mind, one can control what becomes his/her focus. That is to say if clients are taught to think and meditate on positive behaviours, they will learn to act positively.

2.7 Theoretical Framework

Since the discovery of psychoactive substances, man from all cultures and ages has use it to solve one problem or the other, however with continuous use, researchers have discovered that it leads to maladaptive behaviour patterns. Since then, attempts to understand why some people use and abuse substances have been researched on with the hope of providing solutions to these use disorders. In a study reported by Adversary Council on the Misuse of Drugs [ACMD] (1998) reported in Abadinsky (2008), it was stated that for one to experiment with the use of any substance, the individual must learn to use the substance appropriately, and understand whether substance use is pleasurable or not. According to them, it also depends to a large extent on contact with peer/user, network already socialized into, the practices prevalent in the particular area and understanding of the problem. This explains substance use as a social habit learnt in association with the environment the user finds himself or herself in, that is to say, if there are no users or models in a society, substance abuse will extinct. However, he explained that substance abuse has been classified by many researchers under different causes some of which are: medical/diseases, behavioral problems, genetic problems, individual adjustment problems, personality disorder, psychosocial problems, and as culturally determined problem. He furthers states that it is a bio-psychosocial problem as such determined by interaction of psychological, environmental and psychosocial factors.

Others have proposed the disease/psychodynamic, psychoanalytic, cognitive and social learning theories, among others as causes of substance abuse. For the purpose of this study, the psychoanalytic, behaviour, cognitive, cultural, choice, humanistic, social learning and attitude change theories will be reviewed. These theories explain why people develop psychological disorder; behave in deviant maladaptive and personally distressed ways. Researchers in this area have proposed many reasons or theories for substance abuse; in an attempt to find the causes of this maladjustment.

Although many theories have been proposed, not a single one of them satisfactorily explains the causes of this malaise. These theories are: psychoanalytic, Biomedical, Behavioural, Cognitive, choice, Disease, psycho-dynamic, Humanistic, attitude change, Socio-cultural and social learning theories among others. Each of these models provides us with its own boundaries of injury, a way of looking at substance abuse, how it develops and how it can be prevented or treated. Most researchers in mental health professionals today agreed that human experiences are so diverse that no one theory of psycho pathology is able to offer the full explanation for psychological problems for all people at all times (Lopez, 2009).

Psychology examines individual human behavior, and clinicians attempt totreat abnormal or dysfunctional behavior. Some psychological theories ofdrug abuse are based on personality: ‘‘Drug addiction is primarily a personalitydisorder. It represents one type of abortive adjustment to life that individualswith certain personality predispositions may choose under appropriateconditions of availability and sociocultural attitudinal tolerance’’ (Ausubel1978: 77). Part of the psychological explanation for drug abuse has been a presumedaddictive personality, a psychological vulnerability resulting from problematicfamily relationships, inappropriate reinforcement, the lack of healthy rolemodels,contradictory parental expectations, and/or an absence of love and respect.

Thepsychologically immature drug-dependent personality seeks gratification on aprimitive level or, according to the pleasure principle, finds drug use and itsattendant behavior reinforcing. He or she ignores the long-term negative consequencesof behavior and instead opts for the short-term positive reinforcementthat drugs provide.Unfortunately, the search for the addictive personality—psychologicalvariables that can predict future drug abuse—has not been fruitful (Abadinsky, 2008). Nathan (1988) points out that the search for predictors of drugdependence has discovered a variety of overt acts by pre-alcoholic and predrug abusers that reveal an unwillingness to accept societal rules. Beyondthat, however, few consistent links have been found between other behaviorsor personality factors and later abuse of alcohol and drugs. Furthermore, the Psychology of Drug Abuse explained byNathan (1988) notes that large numbers of abusers have never demonstratedantisocial behavior in childhood and that a substantial number of antisocialor conduct-disordered children never develop alcohol or drug problems asadults.Psychological theories can be broadly categorized into those that are basedon a Freudian or psychoanalytic strain and those that are based on behaviorismor learning theory.

2.7.1 Theories of Substance abuse

Theories are propositions by curious individuals in an attempt to explain some mysterious happenings in human lives, in this case the involvement of substance abuse. Each of these theories attributed substance abuse to different causes. Some of the theories of substance abuse are presented below.

2.7.2 The Psycho-Analytic/Psychodynamic Theory

The psycho-analytic theory of substance abuse was propounded by Sigmund Freud, (1856-1939). Though this theory has undergone series of changes over the years, the major proposition remains the influence of unconscious experiences on human

behaviour. This theory explains that people are not conscious of the most important determinants of their behaviours (Abadinsky, 2008). They conceive of human being as a dynamic energy system consisting of basic drives and instincts which in interaction with the environment serve to organize and develop the personality through series of developmental stages. Every individual at birth is pushed by large, unconscious and irrational drives toward satisfaction of unconscious desires; which affects one's personality (Abadinsky, 2008). This explains that during a particular stage of development for instance, the oral stage, the sexual libido located in the erogenous zones of the body (mouth, anus) must be exercised other- wise a child that is restricted at this stage suppresses this urge but affects his/her personality in later stage. This manifests in form of talkativeness, chewing or drinking, which is called negative fixation. In other word, this pleasure which the child was deprived of during this developmental stage is the cause of substance abuse. The psycho-analytic theorists view substance abuse as a symptom of neurosis that manifests in later life.

Abadinsky (2008) states that a typical adolescent who has not had a successful childhood or who has not satisfied the demands of a particular stage ofdevelopment has no sufficient experience in dealing with feelings of psycho-social stress in a mature fashion. In such instances psychoactive substances are seen as forms of self medication in response to the stressful condition of adolescents. This shows that substance abuse is a sign of problems with the oral stage; that is, early deprivation of infantile helplessness and the use of substances help him/her to regress back to 'happy' infancy stage that was never really happy. Freud posits that "from the time of puberty onward, the human individual must devote himself/herself to great tasks of freeing himself/herself from the parents, only after the detachment is accomplished, can he cease to be child and so becomes a member of the social community (Abadinsky, 2008). He pointed out that in

neurotic people such as those involved in substance abuse, this detachment is not accomplished because the neurosis leads to distorted pathological relationship with his parents. The hostility toward the mother generally remains unconscious but it is expressed through substance use which not only destroys the self but also symbolically destroys the mother whom he has incorporated through identification. He further iterates that not the euphoria associated with substance that the user seeks in substance use, but a statistical feeling reminiscent of infancy. This is a way of acting out repressed impulses and needs.

The psychoanalytic theory emphasizes the importance of unconscious mind and the role of early childhood experiences in development of individual problems (Santrock, 2003). He further explained that here, the therapists acts like a psychological detective, sometimes taking the smallest clue and using it as a spring board for understanding the individuals major problems. Freud believes that client's current problems can be traced to childhood experiences, many of which involve conflicts about sexuality. The role of the therapists therefore is to go through extensive questioning, probing, and analyzing to be able to put the pieces of person's personality together and help him/her become aware of how these early experiences were affecting present adult behaviour (Santrock, 2003). He further explained that to uncover the shadowy world of the unconscious, Freud used such techniques as free association, catharsis, interpretations, dream analysis, analysis of transference and analysis of resistance.

2.7.3 Cognitive Theory of Jean Piaget

The cognitive theory of substance abuse explains substance abuse as psychological problems that are caused by irrational or distorted belief system and treatment is by changing distorted and illogical thinking patterns to more functional and

adaptive ones. The premise here is that maladaptive behaviour can be changed if the cognition underlying the behaviour is changed (Wittig, 2002). This theory believes that man is the product of his thoughts; when one perceives weakness to get over a particular thing, then he/she really experiences that weakness. This asserts that if one chooses to think positively, then he will act positively which means one is free to choose how to feel and behave as stated by logotherapy.

Alvarado (2011) iterates that to achieve what we want to achieve, and change what we want to change, we must change the thoughts that got us where we are and the mind that helped us get there. We must surrender the attachments and beliefs which once defined us and moved us into uncertainty we cannot predict. These theorists explain why people develop psychological disorder; behave in deviant maladaptive and in personally distressed ways. These theorists proposed that human behaviour is mediated by beliefs and symbols, by un-observables that intervene between stimulus and a response to that stimulus. Beliefs, sets, strategies, attributions and expectancies are examples of the types of mediating constructs currently considered crucial to the understanding of emotions and behaviours (Goldstein; 1980:8) in (Abadinsky,2008). The way an individual evaluates or perceives a situation determines to a large extent his or her emotional and behavioural responses to it.

According to this theory, people who are involved in substance abuse have difficulty in meeting societal demands or expectations, and this leads to anxiety which they feel can be overcome by substance use. Although anxiety is a universal experience Goldstein notes, that such people feel that they cannot alter or control the situation they find themselves in, that they are powerless to effect changes, reactions and behaviours. Cognitive behavioural approaches believe that psychopathology stems from irrational, faulty and negative distorted thinking or self statement a person make to himself/herself.

Studies reveal that human beings have biological predisposition towards irrationality based on apparent pervasiveness of irrational thinking across cultures and centuries. And the unwillingness of people to give up irrational thinking even in the face of insight is the subject of cognitive approaches. Cognitive restructuring is used to change clients' Irrational, self-defeating and distorted acts and attitudes to more rational and appropriate ones. These allow clients to restate their beliefs to represent reality as opposed to fantasy.

The principle of logotherapy utilizes cognitive approaches to modify behaviours. For instance a client is helped to understand that he has all the potentials he needs to live a successful life or to pass his examinations and to choose to be responsible and happy or not. He is made to understand that the ability to circumvent his challenges lies right inside him. He is however free to come out of his problem or remain in it; that is freedom of choice. A student who is involved in substance abuse either chooses to continue or quit. The client is made to understand that whatever is the cause of his substance abuse is not beyond his ability and potential to handle, therefore he reserves the right to quit if he/she so desires. Abadinsky (2008) iterates that our sources of trouble are not external but internal, once we fail to realize that we can grow above circumstances, our construct environment will weigh us down, once down, we may not be able to rise naturally and cope with problems or everyday stress without resorting to substance use.

Abadinsky (2008) asserts that people who face persistent failure may resort to substance use for comfort and gradually develop disorders. While enabling them to forget their problems and stress, the painkilling experiences engendered by such substances actually depress the central nervous system and the individual's responsive capacity. Substances act as powerful rein forcers, it can do to the user what he or she cannot do for himself/herself. However, these feelings are short lived and after the effects of the substance wear off, the user finds that feelings of powerlessness return with

full fury, which further leads to use of substances and the cycle of continuous substance abuse.

The reliance on substance use to cope with stress and boredom therefore creates a vicious cycles, the more substance are used, the more the individual believes they are necessary. Each substance experience serves to confirm for the user the belief that they are powerless to function on their own (Gold, 1980:9) in (Abadinsky, 2008). In this proposition, people have acquired maladaptive thought system about the use of substance to help them cope with challenges of lives unless they can be helped to change their negative beliefs and thought systems about the use of substances; they may remain in total bondage to the use of substances leading to substance abuse. Substance abuse is one of the many ways people, particularly students choose to deal with their boredom and anxieties. The cognitive theorists make efforts to replace dysfunctional thoughts and images that are inaccurate and cause symptoms with thought and images that are more accurate and decrease unpleasant emotions and maladaptive behaviours (Santrock, 2003) which is very closely related to logotherapy principle of modification of attitude.

2.7.4 Behaviour Theory of J. B. Watson

This theory is based on the tenet that "all forms of behaviour, desirable or undesirable are conditioned, the results of learned responses to certain stimuli. Disturbed behaviours such as substance abuse results from inappropriate conditioning. To these theorists, a person is simply the sum product of his or her experiences or 1earnhg. Learning, based on Operant conditioning emphasizes that animal behaviour can be modified through proper application of positive and negative reinforcements. Behaviour is strengthened by consequences and for that reason; the consequences themselves are called rein forcers (Skinner, 1972:40) in (Abadinsky, 2008). That is to say a behaviour

that is rewarded adequately gets stamped in the behaviour repertoire of the organism and is likely to be repeated while a behaviour that is adequately punished gets stamped out of behaviour repertoire of the organism and is not likely to be repeated. By implication, if there are no rewards attached to substance use among students or if substance use is punished adequately, there is likelihood that it will not be repeated and this will lead to extinction of substance abuse from the secondary schools consequently from the society.

The classical conditioning theory explains how a behaviour is maintained through pairing of two stimuli; one of which elicits a reflex and one which is neutral and with repeated pairing of the two stimuli; the neutral stimulus becomes conditioned stimulus that increases the probability of a stimulus following a behaviour that elicits the responses in the absence of the original eliciting stimulus. This means though the use of substance can be quite rewarding physiologically and psychologically such as providing euphoric feedings, sense or well being, strength and energy, reduce perception of physical psychological pain, stress and anxiety among others, discontinuation produces anxiety, negative reinforcements in form of uncomfortable physical and psychological withdrawal symptoms. This explains why substance user continues to take and misuse substances, disregarding its harmful effects on personal health and on the health of others around the users.

This theory explains substance abuse as directly the result of learning. Orion (2003) note that both the processes involved with the use of some substances; the excitement and the actions of the substances itself become reinforcing thus shaping, that is modeling the behaviour of the addict. Abadinsky (2007) argues that continuation of some substances use is as a result of negative reinforcement people become addicts when they recognize or perceive the significance of withdrawal distress which they experiencing when they cease to use the substance. Behaviour therapists use the

principles of learning to reduce or eliminate maladaptive behaviours, which substance abuse is one.

Behaviour therapy is the application of psychological findings to modify maladaptive behaviours. It stresses that all maladaptive behaviours are learnt in association with reinforcement in the environment and therefore can be unlearnt. But this involves conducting a careful analysis of the behaviour and the person's environment to determine those factors that need to be eliminated especially changing the consequences of the person's behaviour to ensure that behavioural responses are followed by positive reinforcements.

The behaviorists believe that human beings are free agents in decision making and not bound by conditioned responses, each person being unique being, operate inter-actively in his/her environment and this can only be explored by asking individuals for their personal experience. Pawlik and Rosenzweig (2000) explained that the North American Triton believes that what people do depend on the circumstances they are in, and how they have learned to believed in those circumstances, rather than on underlying personality characteristics. They believed that early experiences are not as later experiences. What matters according to them is how often certain forms of behaviour have been successful for a person, not when they happen.

Citing Pawlik and Rosenzweig (2000), personality is dynamic because what people do depend on the experiences they acquire through learning and since human beings continue to learn, their personalities continue to change. This means substance abuse and other psychological disorders depend on how successful they have solved problems and at anytime it's no longer solving their problems, they may quit. Of course

this becomes difficult, unless they have alternative behaviour patterns to substitute substance abuse.

2.7.5 Social Learning Theory of Albert Bandura

Social learning theory is propounded by Albert Bandura, born in 4th December 1925 of Polish parents. He grew up in Alberta, Canada and obtained B.A. degree from the University of British Columbia in Vancouver in 1949 and M.A and PhD in psychology from University of lowa in 1951 and 1952 respectively. He is a staff with psychology Department at Stanford University. Albert Bandura believes that behaviour is caused by an interaction between inner processes and environmental influences. He believes in human cognitive ability to determine actions and to perform insightful and fore-sightful behaviours (Gleiton et al, 2004). He relates the question of personality development to cultural or social expectations in societies where rewards and social approvals are given for certain activities, Individuals in such societies may direct themselves to achieve those rewarding activities.

Bandura (1986; 2000) believes that many of our complex behaviours are the result of exposure to competent models who display appropriate behaviours in solving and coping with problems. This means if substance use serves 'useful' purposes for users and students are exposed to such users, then they (the students) may desire to use substances to achieve the same purposes. Once they get entangled in the web of substances use, it becomes continuous leading to maladaptive use which is difficult to discontinue. If they are no models of substance use in the societies, students will be forced to develop alternative ways of solving their problems. Also, if substance use serves 'useful' purposes in the lives of the users, any behaviour therapy that aim at minimizing this habit must include in its programs alternative behaviour patterns that

will serve the purposes served through use of substances. Social learning theorists believe that man being a social being can be affected by learning variables that treats learning disabilities rooted in social development.

Disorders like excessive academic anxieties, alcoholism, insomnia, obsessive compulsive problems, phobia and the like have social roots and learning how to treat it or at least cope with them will improve personality development and learning (Denga and Denga, 2002). This makes logotherapy principles ideal in this situation. By observing other people in our environments, we acquire knowledge, skills, rules, strategies, beliefs and attitude (Santrock, 2003) which may be both desirable and undesirable, in either way; decision and choice are significant processes. Observational learning also called imitation or modeling, plays a role in substance use, it occurs when one observes and imitates another person's behaviour and behaves like that of the model. People seek for models that possess qualities they admire and capabilities to which they aspire. A significant model in one's life helps instill self beliefs that will influence the course and direction that life will take (Nayok and Raos, 2007). Those who are involved in substance abuse must have observed models that they assume possess qualities they admire, who they believed have been satisfactorily rewarded by the use of substances. Denga and Denga (2002) explain that substance use is facilitated by exposure to models in the environment. For effective imitation after observation however, attention, retention, motor co-ordination and reinforcement are important processes and factors. Bandura (1986; 2000) recognizes the importance of cognition in learning and states that learning involves more than environment-behaviour connection, it also includes the ability of the person to interpret the usefulness of what is to be learnt and make concerted effort to learn, which is synonymous with Frankl's freedom of choice. Here one can deduce that people who are involved in substance abuse have not only observed their

models using substances but have interpreted the needs substances satisfy in their lives and make decision to get involved in it. Santrock (2003) backs this when he emphasizes the purposiveness of behaviour; he believes that much of our behaviours are purposive and goal directed, so it is important to study the entire behavioural sequences in order to understand why people engage in particular behaviour, such as substance abuse. This means those that are involved in substance abuse do so because it satisfies some needs, and this behaviour thrives well because of the needs it satisfies.

Students who are involved in substance abuse have goals they intend to achieve by engaging in substance use behaviour, no matter how wrong their goals may be. Pressley, (1995); Pintrick, 2000; Schunt and Ertner, 2000; Winnie and Perry, 2000) cited in Grilly (2002) iterate that the importance of goal in life is seen in how people engage in self-regulation and self-monitoring of their behaviours to reach a goal. So people who engage in substance abuse do so because it meet some needs which they believe cannot be met in any other way. Social learning theorists emphasize the place of environmental or situational determinants of behaviour. This focuses on patterns of behaviours the individual learns in coping with the environment such as the case of substance abuse to cope with learning difficulties, boredom or purposelessness.

Behaviour is a continuous reaction between personal and environmental variables. The social learning theorists believe that individual differences in behaviour result in large part from differences in kinds of learning experiences encountered in the course of growing up. While some kind of behaviour is learnt in direct experience, others are learnt indirectly as the individual believes in a certain manner and is rewarded or punished. Many responses are acquired without direct reinforcement through observational and vicarious learning. People can learn by observing others' action and by noting the consequences of those actions. To them, reinforcement does not necessarily

encourage learning although it may facilitate it by focusing the individual's attention on the task to be learnt. The reinforcement that controls the expression of learned behaviours may be:

1. Direct, tangible rewards, social approval or disproval or alleviation of aversive conditions.
2. Vicarious-observation of someone receiving rewards or punishment for behaviour similar to one's own or
3. Self-administered-evaluation of one's own performance with self-praise or reproach. To them, a person's action in a given situation depends on the specific characteristic of the situation, the individual's appraisal of the situation, and the past reinforcement for behaviour in similar situations. For instance a student who is involved in substance abuse acts violently scaring other students away, gets what he wants, and feels satisfied is thus rewarded. Such attitude facilitates subsequent behaviours of the student and other observers.

This theory also attributes behaviours to person variable, for instance, it asserts the importance of cognitive factors in determining what a person will do in a particular situation. These person variables according to them are:

1. Competencies which include intellectual abilities, social and physical skills, and other special abilities.
2. Cognitive strategies which include habitual ways of selectively attending to information and organizing it into meaning categories.
3. Expectancies which include expectation about the consequences of different behaviours about the meaning of certain stimulus such as when

one does not have competent social skill to carry out a particular task, there is every tendency to resort to substance use.

4. Subjective outcome of values, this indicates one behaving differently because of different value is attached to something.
5. Self-regulatory system and plans which include self-imposed standards and rules the individual adopts for regulating his/her own behaviours, such as self rewards for success or punishment for failure and plans for reaching goals (Bandura, 2000).

Learning theory posits that people use substances to reduce anxiety. Substances are powerful rein forcers in their ability to alleviate tension, overcome sense of weakness, to feel stronger and more effective. Many youths or students engage in substance abuse to keep with peers. Behaviour is determined by environmental conditions and how thoughts that modify the effects of the environment on behaviour (Bandura, 2001). These theorists posit that how themind processes information about the environment is important contributing factors to our behaviours.

2.7.6. Sociological Theory of Scott A. Appelrouth

Sociological theory is propounded by Appelrouth in California State University, it is concerned with social structures and social behaviour,so it examines substance use in its social context. A sociological perspective oftenviews substance use as the product of social conditions and relationships that causedespair, frustration, hopelessness, and general feelings of alienation in the mostdisadvantaged segments of the population (Biernacki, 1986) cited in (Abadinsky, 2008). The NIDA (1987) in the same source outlines factors that are associated positivelywith adolescent substance abuse, factors that

are frequently found in deprivedsocioeconomic environments (most arrested cocaine and heroin users reside indisadvantaged neighborhoods [Lo 2003]):

1. Families whose members have a history of alcohol abuse and/or histories ofantisocial behavior or criminality
2. Inconsistent parental supervision, with reactions that swing from permissivenessto severity
3. Parental approval or use of dangerous substances
4. Friends who abuse drugs.
5. Children who fail in school during the late elementary years and show alack of interest in school during early adolescence
6. Children who are alienated and rebellious
7. Children who exhibit antisocial behavior, particularly aggressive behavior,during early adolescence

There is also a strong link between childhood sexual and physical abuse andsubstance abuse (Brems et al, 2004) cited in (Abadinsky, 2008).They reiterate thatmany sociological studies have found that drug use among adolescents ismotivated by intermittent feelings of boredom and depression and that, likeother aspects of adolescence, drug use is typically abandoned when the personreaches adulthood except where use becomes maladaptive. Furthermore, contrary to conventional wisdom, researchhas found that drug use is typically a group activity of socially well-integratedyoungsters. That is, contrary to some psychologicalviews, the adolescent drug user is socially competent (or ego sufficient).Sociological studies often challenge the conflicting views of the adolescent druguser as either a deviant isolate or a peer-driven conformist (Glassner and Loughlin, 1989) cited in (Abadinsky, 2008). This, according to them has important policy implications, and treatment approachesbased on sociological

theories usually ‘‘stress re-socialization, the adopting ofpro-social values, and/or submission to a peer culture that is strongly opposedto drug use. Thus, ‘‘according to a social stress model, adolescents initiatesubstance use as a means of coping with a variety of stressors and influencesthat may arise from within the family, the school, the peer group, or thecommunity.’’ And adolescents ‘‘will be more resilient and, as such, less likely toengage in problematic early usage as a means of coping with these stressors ifthey are members of pro-social, supportive social networks’’ (Rhodes and Jason, 1990: 396) cited in (Abadinsky, 2008).

2.7.7 Socio- Cultural Theory of Brunner

Socio- cultural theory of was proposed by Brunner, born in l5’ October, 1915 in New York; he was the youngest of four children in a nominally observant Jewish family. He was a leading voice, in the cognitive revolution that overtook psychology in the 1960s ending the half century of domination of behaviourism. He was an important figure or proponent of the importance of culture in human development, including education as an important aspect of culture. Brunner argues that minds have the properties they do not just have because we are all humans, but because we are all humans and because of the rules and rituals of child-rearing and formal education. Cultural rules and routines and the narrative forms people learn to us to interpret their own and others’ lives are the themes of the culture of the education (salkind and Maregolis, 2002). Another proponent of socio –cultural theory is a Russian psychologist Leu voygotsky, a contemporary of Piaget. He emphasizes the influence of culture, peers, and adults on the developing child. Voygotsky proposed the zone of proximal development in which he explains the difference between child’s performances when he/she attempts a problem on his/her own, compared with when an adult or older child provides assistance (Salkind and Mangolis, 2002). He states that the help from adult is

called, scaffolding, just as the scaffolding of the building helps to support it, assistance from adult and peers in a child's environment helps the child's development.

He emphasizes the importance of cultural tools to socio-cultural approach, according to Salkind and Mangolis (2002), things or materials in the culture such as computers, books and traditions among others that teach children about the expectations of the group are important in acquisition of behaviour. He believes that the influence of the environment is critical for development. Socio-cultural theory attributes substance abuse to unconscious conflicts, negative cognition, and low-self concept and intra factors within the individual (Nole-Hokshema, 2001). This theory emphasizes on the larger societal context in which a person lives, which are; the family, neighborhood, social status, ethnicity, gender, and culture. Citing Aiwood (2001), when a number of a family has psychological problems, it may not be due to something within the individuals but may be due to ineffective family functioning. He also attributes psychological problems to power struggle within the family, sibling conflicts, and marital conflicts among others.

In a study by Green Glass, (1998); Nolen-Hoekshema (2001) and Wood (2001), gender, another socio-cultural factor is associated with prevalence of certain psychological disorders such as substance use-disorder. They explain that women tend to have internalized disorder while males tend to direct their energytoward the externalized (to externalize their feelings) and they more often have externalized disorders that involve aggression and substance abuse.

It has been stated by researchers that substance effects are strongly influenced by the amount taken, how much it has been taken before, what the user wants and expects to happen, the surrounding in which it is taken and the reaction of other people around. All these influences are themselves tied up with social and cultural attitudes and beliefs

about substances as well as more general social conditions. Even the same person may react differently at different times (Abadinsky, 2008).

Whether substance abuse is considered maladaptive or not depends on the culture of the user. In societies where substance taking is frowned at, substance abuse is minimal, while cultures that approve the use of substances, either for recreational purposes or festivities and other ceremonies, substance use is encouraged. Abadinsky (2008), asserts that whether a person interprets the effect of substances as pleasurable or euphoric depends very much on the social settings and other complex psychological and social conditions. Pawlik and Rosenzweig (2000) assert that behaviour transmitted among individuals and across generations are maintained and are established and relatively stable network of reinforcements; usually social in nature. He further stresses that culture is the contingences of social reinforcement maintained by a group, nations, families, communities, and organizations. This according to him means cultural practices require a system of interlocking social reinforcements that are necessary to stabilize the social practices. This further explains why substance abuse is sustained in some cultures and minimal in other cultures.

Pawlik and Rosenzweig (2000) state that the most significant and dramatic change in middle childhood is enrooted in the time he/she spends with peers as compared with the ones spent with their parents; it is during such times that children experience what they have received from their parents and significant others. Where the culture encourages substance abuse, children from such environments emulate the older members of the society and see nothing wrong taking substances until a disorder is developed. The same source explains that peer group in western culture is composed of self selected age mates who share interests and attitudes. In the Arabian world, peer group is constituted mainly by family members, the most intimate one being siblings,

followed by cousins and finally neighbors. They explain that children do not become hostile or friendly, there is developmental continuity translating early interactional experiences in to a working models or the self which facilitates the acquisition of specific personality traits in interaction with genetic predisposition. This emphasizes the role of culture in determining one's behaviour, though they did agree that genetic predisposition is a contributing factor to behaviour, be it desirable or undesirable. Therefore, a full understanding of one's behaviour requires knowing about the cultural context in which the behaviour occurs (Santrock, 2003). This is because different cultures have their attitudinal goggles through which they assess behaviours in their cultural and social milieu which may be different from that of others. This behaviour that is acceptable in one culture may be frowned at in another culture. This also means what is considered substance abuse in one culture may be quite acceptable and normal in another culture.

2.7.8 Humanistic Theory of Abraham Maslow

This theory was propounded by Abraham Maslow, 1908-1970. He attended the City College of New York and Cornell, before transferring to the University of Wisconsin where he earned his B.A degree in 1930, his M.A in 1931 and PhD in 1934 in Psychology respectively. The situations and happenings of 2nd World War made him to think or human problems such as World peace, human motivation and developed theory of human motivations from the observation that studying healthy person is more logical than studying the sick ones which leads to the third force in Psychology; a Psychology of health and growth which later came to be known and called humanistic theory (Lopez, 2007). He also propounded the hierarchy of needs arranged in ascending order with biological needs at the bottom and the social needs toward the top and states that as needs are met at one level, man advances to the next level. Until the biological needs are

satisfied, one will not strive for the social needs. As stated earlier, substance abuse satisfies a need for every user and until such needs are met either through taking the substance or through alternative behaviour patterns as logotherapy principles attempt to, the user may continue to strive for its fulfillment.

The humanistic theory stresses that instinctively, man is controlled by hierarchy of needs and a person's control of and responsibility for behaviour is rooted in this phenomenon. The individuals as rational being will be directed towards interaction with other social beings that also interact with others in their environment. This makes it possible for one's behaviour to be influenced by other people's behaviour easily except where concerted effort is made to control one's behaviour. Maladaptive behavior of which substance abuse is one therefore occurs as a result of conflicts between an individual's self image and reality of the situation, that is the ideal image and what is actually available and within reach of the individual. Treatment or rather management of behaviour disorder by this therapy involves assisting the individual suffering from behaviour disorder to understand and find ways to reach the self image that allows favourable interaction with others in the environment. The humanistic theory encourages clients to understand themselves and to grow personally. It emphasizes self-healing capacities. Santrock (2003) posits that emphasis is laid on conscious thoughts, the present, growth and self-fulfillment. Insight and self awareness are key constructs in this theory. Clients are encouraged to develop greater self knowledge that will enable them to correct their identification of eliciting stimuli or consequences that maintain positive problematic issues before.

The theory emphasizes our capacity for personal growth, developing our potentials and the freedom to choose our destiny. According to the proponent of this theory, there are three major points in this theory which are:

1. Phenomenological perspective
2. The holistic view and
3. Self actualization (Plotkin, 2011).

According to him, our perception of the world, whether or not accurate, becomes our reality; this explains the phenomenological view. The holistic view posits that a person's personality is more than the sum of its individual parts, instead, the individual parts forms a unique and total entity that function as a unit. While the self actualization view explains that individual have inherent tendency to reach their potentials. It rejects biological determinism and the irrational unconscious force of Freud's psycho dynamic proposition. It emphasizes freedom of choice by every individual to go after one's dream and change one's destiny. Encyclopedia of psychology (2012) states that humanistic theory has four major themes of primary importance, which are:

1. Commitment to a phenomenological approach grounded in the belief in the unequally human capacity for reflective consciousness and in the belief that it is this capacity that can lead to self-determination and freedom.
2. Belief that actualizing tendency of some sort does exist within us.
3. Belief that human kind is capable of self-determination
4. Belief in the importance of having concern and respect for others

Encyclopedia of Psychology (2012) referred to humanistic theory as proactive and not reactive. Here, the words freedom, responsibility, self actualization, determination, awareness, and self discovery are associated with humanistic tradition. The basic tenet on which this theory was founded is the innate ability of a man to grow and achieve whatever one desires. The freedom of choice and responsibility for the

outcome of whatever choice made is also of paramount importance just like Logotherapy.

2.7.9 Choice Theory of William Glasser

This theory was propounded by William Glasser, it emphasized that individuals chooses how to respond to perceptions. It explains that when one becomes aware of stimuli in the environment, the brain organizes or reorganizes the stimulus resulting in thoughts, actions and feelings. This explains how individuals behave in adaptive and maladaptive ways. The theory states that people do not become miserable or sad; rather, they choose to be miserable or sad. This does not mean that man can completely rule out the possibility of being sad or miserable but that one chooses to remain sad or miserable after an event that is traumatic. For instance, one can be sad or miserable especially after death of loved one but maintaining this feeling is what one chooses.

The choice theory explains that individuals are usually in control of their lives when they feel good. An exception to this however is substance abuse. Substances often give a quick burst of pleasure that may make individuals feel ecstatic but the indication that their lives are very much out of control. Substances like alcohol gives individuals powerful sense of control when in fact they are out of control. Glasser states that the actions are unique; others like caffeine and nicotine give individuals the sense of control in a different way. They energize the behavioural system so that individuals using them feel that they can do everything. Cigarettes and caffeine give small feelings of energy. All substances act in different ways to interact with individuals controlling their lives. The propounder of this theory believes that one gets involved in substance use and abuse because the person chose to and therefore chooses to quit if desires to.

2.7.10 Attitude Change Theory of Carl Hovland

This theory explains that peoples' attitude will change through learning a new message, that is when they have both the ability and motivation to listen to the message and think about it (Cacioppo, 1980) .Attitudecan be explained as one's pre-disposition toward a particular thing or event. It is a known fact that our attitudes determine our behaviours and for any behaviour to change; there must be a change in our self-perception. The theory of attitude change explains that attitudes are formed and changed on the basis of cognitive, affective and behavioural processes. It states that people form beliefs about the characteristics of entities in their environments known as attitude object and that the evaluative content of these belief determines how favourable or unfavourable attitudes are (Kazdin, 2007). In relation to substance use, this theory means substance users have favourable attitudes toward substance use and unless they are led to change their cognition from favourable to unfavourable, change may not take place, hence the use of logotherapy techniques.

This theory opines that attitudes can be modified by changing beliefs, affects or representations of behaviour that people hold in to an attitude objects, in this case substance use. It further states that people construct their attitudes from the thoughts that come to mind as they receive and think about persuasive communications. People's attitudes are a function of the cognitions that they generate about the attitude objects of their attitude. Propounders of this theory emphasize that people derive their attitudes towards behaviours from their beliefs about the consequences of these behaviour (Kazdin, 2007).

This points to the fact that attitudes serve functions, so substance abuse has functions it serve in the lives of the users, unless such functions are favourably substituted, the users will not give up substance abuse. In this regard, logotherapy posits that one cannot stop the thoughts that come to one's mind but one can be helped to

develop positive attitude towards the thoughts. Reisberg et al (2004:371) iterate, "attitudes cause behaviour, our actions stem from our feelings and our beliefs which seem to be the result of our actions and not their cause". They further explain that attitude and behaviour have something to do with each other, according to them, when our behaviours conflict with our attitude, something has to give in, and in most cases, it is the attitude that is apt to change. This means behaviour is not likely to change if attitude is not influenced positively. Base on this, modification of attitude principle of logotherapy is relevant in modifying the positive attitudes of subjects toward substance abuse to negative ones by providing alternative behaviours in creativity, sports, friendships and other less destructive behaviours.

2.8 Empirical Studies

The use and abuse of substances by secondary school students is a global issue that requires urgent attention. Many researchers have conducted studies on different aspects of substance use and abuse, and the results showed that it is a menace in almost all nations of the world. Most of the studies revealed that substance abuse is a universal phenomenon which cuts across socio- economic, cultural, religious and ethnic boundaries and despite the effort of the various Nigerian tier of Government and the National Drug Law Enforcement Agency (NDLEA) to stem its tide in the country, there has been a consistent rapid rise in the number of cases especially amongst the young adolescent (10-24 years). Whichsrom, and Hegna (2003) buttressed the above by stating that substance use and abuse is a global health problem with conditions and problems that vary locally. According to them, the use of psychoactive substances among adolescents and young adults has become a subject of public concern worldwide; partly because of its potential to contribute to intentional and unintentional injury.

Substance abuse has been the cause of so many behaviour problems among Nigerian students particularly at the secondary school levels. Studies explained that with the attendant consequences of indiscipline, arson, armed robbery, assaults, rape, ritual practices, mental derangement, mass failure in examinations, indiscriminate sexual acts, leading to sexually transmitted disease STDs/AIDS, 4l9, wrong subject choice, low self-concept, questionable character and others which negate the philosophies, principles, and policies laid down to ensure peace, security, decorum in such institutions, students who are involved in substance abuse are seen as threats to those noble goals for which government has set to achieve for its youths. This has led many youths to sooner or later move out of schools and litter every nook and cranny, not only invading but also affecting the lives of some innocent ones with such stigmatized behaviour by inhabiting on a permanent basis in hotels, bus structure, motor parks, dark corners, abandoned structures, prisons, police stations, and so on (Fatoyi and Morakinyo, 2002).

Several studies indicate that substance abuse is prevalent in most secondary schools the world over. For, instance, in Ilorin, Nigeria, the lifetime, prevalence of substance abuse among secondary school students and University undergraduates was found to vary between 1.5% for tobacco and 47% for other psychoactive substances, psycho-stimulants were the commonly used substances (Skosnik, P. D., Sparz-Glenn, L., and Park, S. 2001; Grecj, A. J., Von, (1995) and Jones et al, 2005) in Oshikoya and Alli (2006).

The Institute of Social Research at the University of Michigan conducted a research in which substance use of America’s high school seniors in a wide range of public and private high schools, and th graders, 50,000 students in nearly 400 secondary schools who were monitored, reported 18% of them admitted using substances at one time in their lives.

In an American study, substance abuse rate increased with age, a prevalence rate of 19.6% between the ages of 18-20 years. In the United Kingdom, cross- sectional studies have shown that among students, illicit substances were commonly used. Among those aged 15-16 years, 30% of males and 5% of females regularly drink twice the recommended safe level of alcohol (Oshiodi et al, 2010). In Peru, the prevalence of alcohol dependence is about 35%, in south Korea, it is approximately 27%, about 3.5% in Taipei, and as low as 0.45% in Shanghai (Gelhert and Brown 2012).

Though there are differences in the rate at which substances are consumed, literatures reveal that, it is a common phenomena and therefore, the disorder is assessed depending on cultural perspectives and there exist different reasons and rates of substance consumption. Santróck (2008) states that the French drink alcohols at a high rate and adult French have impaired health related problems associated with alcohols. Alcohol consumption is also high among the Russians but its use in China is low.

A 2004 survey revealed that 18% of United States adolescents had used painkillers at some points in their lifetime, while 10% used other substances to relieve tensions (Partnership for Drug Free America, 2005). The study reveals that 9% of adolescents said they have abused cough medications to intentionally get high. From 2002-2005, adolescents' reports of using it at any time in the previous year, increased from 4% to 5.5% (Johnson and others, 2006). As stated earlier, alcohol use disorder is one of the serious problems that affect people of all sexes; age groups, ethnicity, and cultural backgrounds. Researchers reveal the prevalence of alcohol use disorder in many countries. Research on clinical screening for alcohol use disorder generally defines current use as at least one drink in the past 30 days, and defines binge use as five or more drinks on the same occasion at least once in the past 30 days and heavy use / use disorder

as five or more drink on the same or more drink on the occasion at least different days in the past 30 days (SAMHSA, 2009)

The 2008 NSDUH indicates that just over half of all Americans, 12 years and older reports current use of alcohol. Gehlert and Browne (2012) iterate that more than 50% of American adults have a close family member who has met the diagnostic criteria for alcohol dependence or disorder; they also state that among children younger than eighteen years in United States, approximately one in every four is exposed to alcohol use or disorder in the family. As earlier explained, alcohol is a CNS depressant; its excessive use therefore affects multiple neurotransmitter systems; leading to deleterious effects on biological, psychological, and social wellbeing of the user (Geilhert and Browne, 2012).

The above source further iterates because of legal availability of alcohol, it is consumed by about 11% of the population in United State. A researcher on alcohol use and disorder reveals that its use and abuse is the highest among Caucasian Americans (51.0%) but lower among those with multi- racial backgrounds (4 1.8%), Hispanese, (39.9%) and Asian Americans [31.9] (Office of applied studies 1999) in the same source. This source correlates positively with recent alcohol use. Its consumption among people aged 18-25 varies based on level of education. 744 of those with College degree reported consuming alcohol within the past months, only 42.1% of them are with less alcohol problems, with about 10.5 million adults thought to be alcohol use disordered.

In a study conducted by Makonjula, Daramola and Obembe (2007), it was revealed that there is high prevalence of alcohol, tobacco and mild stimulants use in Nigeria with 38.0%, 27.0% and 67.9% respectively with males reporting more use than females in all the categories. Ihezue Roy, David and Nduka (2012) found prevalence of

alcohol use of 60%, with life time prevalence of 56% among Nigerian students, particularly of secondary schools. In the same vein, Essein (2010) posits that alcohol is one of the substances abused by Nigerian graduates. To further buttress the excessive use of alcohol by Nigerian students, Bulus and Rimfat (2001) state that substance abuse and alcoholism specifically among Nigerian students constitutes one of the major social and academic problems in schools in the 1980s and 2000s. On the other hand, Grilly (2002) reveals that alcohol use increased throughout the 1970s peaking at the end of 1980s and remained fairly stable during the 1990s. In the 2000 survey, 80% of 12^{th} grade students is reported having tried alcohol at least once and 62% reported having been drinking at least once and 52% had tried alcohol, 25% have been drunk at least once to half of high school life, 42% of 10^{th} grade and 22% of 8^{th} grades reported drinking alcohol in the previous 80 days.

The 2008 NSDUH findings indicate that young adults aged 18-25 years' experience the highest rate of problem drinking that is alcohol use disorder (SAMHSA, 2009). According to this finding, 41% of the group reported binge drinking in the past month, and 14.5% reported heavy alcohol use in the same time period. Within this group men were more likely than women to report binge drinking, 48.4% and 36.6% heavy alcohol use. Adolescence, age 12-17 years reported alcohol use at rate that call for concern. However, Asian -American young adults were least likely to report binge drinking (6.4%) white American young adults age 18-25 years reported the highest rate of problematic alcohol use disorder (47.1% and 18.1%) for binge and heavy drinking respectively (Geilhert and Browne, 2012). This study however reported no significant deference in gender as regard alcohol use and disorder. SAMHSA (2009) states gender differences in drinking rates were less significant among adolescents than among young adults, interestingly, girls age 12-17 years reported greater lifetime alcohol use than

boys, (39.1% versus 37.6%) respectively. They state that African American youths reported relatively low binge use rates (40.0%), American adults of lifetime use (46.6%, 39.3% and 8%) respectively.

It was reported that Hispanic adults have the highest rate of binge drinking (26.4%), Asian adults reported lowest rate of binge drinking (10.7%) and all the other racial groups reported rates between (21.4% and 24.0%). It was found that older adults have unique vulnerability that put them to greater risk of negative consequences when using even small amount of alcohol, for instance, individuals in this group may reach high BAC with less alcohol consumption than individuals in other groups (NIAAA, 2004a). Dewilt, Adlat, Offord and Ogborne (2000) show that in a study of almost 6,000 lifetime drinkers, found that drinking at an early age, from age 11-14 was predictive of later alcohol use disorders as well as other substances.

The use and abuse of caffeine found in many foods and beverage is very high among students both at secondary and tertiary levels in Nigeria, particularly in Borno state. Though there is no available record for caffeine use disorder among secondary schools in Borno state, records found among other Nigerian students and students all over the world for instance, studies by Ashikoya and Alli (2006), Geilhert and Browne (2012) among others indicate that students use caffeine excessively for many reasons. In a study of undergraduate students in Nigeria, by Ashikoya and Alli (2006), it was revealed that caffeine is one of the substances used most, particularly from coffee with 43.1% of students being users.

The 2008 NSDUH, estimated that 28 .4% of the United States population, 12 years and older were current users of tobacco products. Adolescents, age 12-17 years reported current use rate of 11.4% and it was found out that boys were more likely to use

tobacco than girls, 12.6% versesl0.2% respectively. American-Indian adolescents reported the highest rate of tobacco use (22.0%) and Asian youths, the lowest rates (4.4%) of all racial groups (Geihert and Browne, 2012). The study reveals that a rate of use among gender and other racial groups of age 18-25 years varied similar to those seen among adolescents; men use is at rate greater than women (48.8% versus 33.8%) respectively.

The same finding reported African-American young adults having the lowest rates of current use (20.0% and 30.7%) respectively. American- Indian and white American reported the highest rates of current use (52.8% and 47.5%). NIDA (2010) reported that tobacco use and nicotine consumption is the leading preventable cause of disease durability, and death in the United States that according to them, approximately 8.6 million Americans suffer from at least one serious illness caused by smoking. Annual estimates indicate that smoking is possible for economic loss of 75 billion in excess, of medical expenditures (CDC, 2004). In the United States, smoking remains the single largest preventable cause of adverse pregnancy outcome (Shiona et al, 1995) cited in (Gelhert and Browne, 2012).

In rural Nigeria, study by kawoyin et al (2005:355) reveals "tobacco and kola nuts and nicotine use disorder have been found amongst students in secondary schools". In the same vein, Ndom et al (2012) reported the use of tobacco alongside with other psycho-stimulants among students in both urban and rural schools in Nigeria.

Despite the prevalence of substance abuse in secondary schools especially in Nigeria, few studies have been conducted on Logotherapy and substance abuse. However, there are related studies though not in Nigerian context, these are presented below:

Kang, Kyung-al et a!, 2009 conducted a study on "The Effects of Logotherapy on suffering, Finding Meaning and Spiritual Well-being of Adolescents with terminal Cancer in Department of Nursing, Sahmyook University", using 49 cancer patients. 29 adolescent cancer patients, were purposively selected, 17 for experimental group and 12 for control group. They used non-equivalent control group, non-synchronized design, to evaluate effects of logotherapy education program on adolescents with terminal cancer in reducing suffering and creating meaning in life. Three hypotheses were formulated, one of which is; Difference of suffering in the experimental group will be larger than the control group.

The experiment took five daily sessions for one week; in which control group received the normal nursing care. The effects were measured using suffering Adolescents meaning in life (AMIL) and spiritual well-being (SWB) scales: There were significant differences in suffering (w=153.0O, p .05) and meaning in life (w=78.00, p .05).

Logotherapy was effective in reducing suffering and improving meaning in life. Therefore, it can be utilized for adolescents with terminal diseases to prevent or reduce existential distress and improve their quality of life. Logotherapy was found to be effective in managing adolescent cancer patients. The study used hospital setting to modify the attitudes of adolescents with terminal cancer. This is one of the challenges that one has, having no control over but one has the free will to adopt an attitude that could reduce stress and see meaning even in suffering.

Although adolescents were used, it is unlike the present study which will be school setting to modify attitudes of students towards substances use disorder. The present study will also use Nigerian context. The similarity of the two studies is that Logotherapy is employed to modify human attitudes in situations the subjects have no

control over (cancer and substance abuse). Jad Washen, 2006 conducted a study on 'Application of Logotherapy in Teaching Mathematics amongst Secondary School Students in Ithaca, USA'. The study use experimental design using 8 students and a teacher (9) to uncover knowledge that is already hidden in students and help students find their own meaning even if it will not coincide with the value system of the teacher. No hypothesis was formulated to guide the study. There was a daily lesson for 2 weeks; during which the use of posters, displays, use of symmetry and patterns were utilized.

This study was based on the observation that many students who study mathematics find it meaningless and fail to learn the subject. The conflict here is that teachers attempt to teach the students the subject area because it is mandatory for them to teach and forget about individual needs of the students. And the students must learn to pass examinations whether they like it or not. After mutual sharing of their challenges, teacher's heart was open to the students and students' hearts and minds were open to the teacher and also to learning mathematics. After this, the teacher gave them a similar test to the one they took for placement test when they first went to the College which most of them failed. After marking the test, he discovered that they all passed.

Logotherapy was effective in improving teaching and facilitating learning among the students. He recommended that students should be taken to outdoor activities once in a while so that it can help to create new environments and new meaning for learning. Other activities as friendly matches with other schools were also suggested, to make teaching really an art. The study is in a school setting just like the present study but the behaviour in question differs. This study established the fact that when students are not motivated and do not have meaning in what they are learning, it leads to loss of interest and behaviour disorders such as substance abuse. The present study intends to find out

the efficacy of Logotherapeutic principles on Nigerian students who are involved in substance abuse.

Rosemary Henrion (2002), conducted a study on "Application of Logotherapy on Alcohol Use Disorder among Veterans in a Group Counseling" The Quasi experimental Design was used on all veterans in group counseling which comprises a graduate of Nard Academy, male, a father of three boys and a girl. The Socratic dialogue principle was employed in the treatment of alcohol use disorder. There was no hypothesis formulated in the study. After using Socratic questions over series of meeting which the number was not mentioned, the subject started resolving some of his problems. He realized that he was a failure in marriage and have lost self-confidence but realized that he has free will in all situations in which he has control and therefore modified his attitudes and got adjusted having been opened to new awareness of his potentials.

He decided to have a second career after retirement and to go for another marriage. His drinking patterns reduced drastically at the end of the intervention. Pretest result of purpose in life test (PILT) was = 68 indicating no meaning and purpose in life. His post test result was 115 indicating definite meaning and purpose in life after intervention. The study also indicates that boredom, existential Vacuum and emptiness have significantly reduced in his life.

Socratic dialogue, one principle of Logotherapy was found effective in managing alcoholism. The setting was a counseling setting and the sample size is only 1 (one). There was no hypothesis to direct the course of the study and the 124population and the scope were not mentioned. The setting was not school setting, although the case in question that is, alcohol use disorder is similar to the present study. The sample size is

only one and the scope is not in Nigeria while the present study intends to use Nigerian secondary school students.

2.9 Summary

This chapter reviewed other researchers' opinions on the concepts of substance use and substance abuse, the predisposing factors, effects, substances commonly used and abused by students in the area of study. Different theories of substance abuse such as Sigmund Freud's psychoanalytic, Cognitive and social learning theories among others were also reviewed. The concept of psychotherapy a management approaches was generally reviewed and logotherapy specifically reviewed. Two logotherapy principles, modification of attitude and Socratic dialogue which are the main approaches to be used in this study were reviewed. The relationship between substance abuse and logotherapy was also examined and finally, empirical studies related to substance abuse and logotherapy were also reviewed.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presented the framework of how the study was conducted. It described the research design, population of the study, Sample size and sampling procedure, Instrument for Data Collection, Description of Instrument, Validity and Reliability of the Instrument, Treatment Procedure, Control of Extraneous Variables, and Data Analysis Procedure.

3.2 Research Design

This research employed the quasi experimental pre-test post-test design. This type of design is used outside laboratory setting and the scheduling of treatment variable is usually out of control of the researchers. It determines the effectiveness of a technique on dependent variable, in this case, effect of Logotherapy techniques, (Modification of Attitudeand Socratic Dialogue) on substance abuse among senior secondary school students in Borno state. In situations where complete control of experimental environment is not realistic, such as school environment systems, the quasi experimental design is the most appropriate. The design is considered appropriate in this study because complete control of the experimental environment is not possible.

This also justified its use in the behavioural sciences such as Educational Psycho1ogy. Ngu (2009) defined quasi experimental design as any study in which the researcher deliberately interferes with experimental situation by controlling what groups are exposed to certain conditions in the study. The design involves random assignment of subjects to both experimental groups.

The peculiar strength of quasi experimental design according to Heppner, Wampold and Kivlinghan (2008) lies in the use of pre test, which enable the researcher use different analysis that might be useful in making valid inferences about the effects of the independent variable. In this research work, there are two experimental groups drown from the selected sample and were all pretested using the same instrument and the results compared. Here subjects who were involved in substance use were exposed to two types of Logotherapeutic techniques which were Modification of Attitude and Socratic Dialogue. The design is diagrammatically presented in the table below:

Table 3.1 Diagrammatic presentation of Quasi Experimental Design

Group	Pretest	Treatment	Post test
Experimental Group A	0_1	X	0_2
Experimental Group B	0_3	X	0_4

Here is the key to understanding the symbols used in the quasi experiment of this study:

Key: 0_1 -- Observation before treatment for experimental group A (pre test)

0_2 -- Observation after treatment for experimental group A (post test)

0_3 -- Observation before treatment for experimental group B (pre test)

0_4 -- Observation after treatment for experimental group B (post test)

X – Treatment

3.3. Population of the Study

The population of the study consisted of all SS2 students in Biu Educational Zone, Borno State who were found to be involved in substance abuse after

administeringthe SAC. Although the study was initially meant to cover all secondary schools in Borno State, the security challenges prevalent in the area of study made accessibility to most secondary schools difficult. For this reason, only secondary schools in Biu Educational Zone were used. There were 12 secondary schools in Biu Educational Zone, Borno state with 483 SS2 students found to be involved in substance abuse which constitute the population of the study. The schools, number of SS 2 students, those found to be involved in substance abuse and their gender are shown below in table 3.2

Table 3.2 Population of the Study by schools, Number of students and Gender

S/N	Sec. Schools	No. of SS2 Stds	Stds involved in Sub.Use	Gender	
				M	F
1.	GSSWaka	325	71(22%)	71	--
2.	GSS Kwaya	249	45 (18%)	45	--
3.	GSSSS Biu	422	48 (11%)	48	--
4.	GGSS Biu	352	37(11%)	--	37
5.	GSS Am Bcks	196	21(11%)	21	---
6.	GGSS Mirnga	280	9(14%)	---	39
7.	GSS Shani	220	38 (17%)	38	---
8.	GSS Sakwa	273	42 (15%)	42	---
9.	GGSS Shaffa	202	41(20%)	---	41
10.	GSS Kubo	180	31 (17%)	31	---
11.	GSS Kwajaffa	182	30 (17%)	30	--
12.	GSS Marama	230	40 (17%)	40	--
	Total	3085	483 (100%)	366	117

Source: Result of checklist (2012/2013)

Identification of the Target population: There were 483 students identified as being involved in substance abuse through 10 items SAC adapted from a guide line provided by the center for substance Abuse Treatment. The checklist comprised 4 sections under the following headings: the biodata, the presenting needs (2 items), the immediate needs (2 items), and the level of functioning (3 items) giving a total of 10

items. This was done to explore all available avenues of identifying the target subjects who were students involved in substance abuse. The checklist was distributed to all SS2 students of the three sampled secondary schools in the area of study, after which scores were accorded based on the scoring procedure provided by the guideline. Each student is given identification number by which their checklists were known even after scoring. Below is the scoring procedure for the checklist:

The first item was analyzed based on the substance commonly used by the subjects; anyone who ticks none is considered not suitable for the experiment, but whichever substance that is ticked is scored 2. The second item requires the subjects to indicate how many times they take (the substance indicated in item 1) in a day ranging from 0, 1-2, 3- 4, 5 and above times, whichever option that is ticked is scored 2 . The remaining 8 items are a simple Yes/No answers, with a yes option having 2 marks and a no option having zero mark. A total score of 20 is the maximum obtainable score for one that answered yes for all the 8 items plus items one and two for one involved in substance use and 0 for one that answered no for all the 8 items plus none in item one and zero for item two. A total score of 16-20 indicates severe involvement in substance abuse, a score of 11-15 indicates moderate involvement in substance abuse, a score of 06-10 indicates mild involvement in substance use and any score of 01-05 indicates very mild and a score of 00 indicates non involvement in substance use. Only subjects within the severe, moderate, and mild levels were used as the subjects for this study. Those found not to be involved in substance abuse were appreciated and dismissed, while students who were involved in verymild substance use were directed to the counseling unit of their respective schools for counseling.

3.4. Sample and Sampling Technique /School Selection.

The sampled schools, Government secondary school Waka-Biu and Government secondary school Shaffa were selected from the 12 secondary schools based on the number of SS2 students found to be involved in substance abuse. Government secondary school Waka-Biu was found to be the school with the highest number of SS2 students involved in substance abuse with a percentage number of students of 22%, while Government secondary school Shaffa was the second highest with number of students of 20% of the SS2 students involved in substance abuse.

Both sampled schools are homogenous because they have the same geographical, ethnic and religious backgrounds. The two sampled schools were purposively assigned to experimental groups. Government secondary school Waka-Biu was experimental group A, on which Modification of Attitude technique was used as intervention strategy on the subjects and Government secondary school Shaffa was experimental group B on which Socratic Dialogue technique was used as intervention strategy on the subjects.

To selectsubjects for the study, the 10 item SAC was distributed to all SS2 students of the two sampled schools, the filled checklists were returned to the researcher and analyzed based on the scoring procedures. After the screening exercise, 56, (29 mild,17 moderate and 10 severe) and 52 (26 mild, 19 moderate and 7 severe) students were found to be involved in substance abuse in the two schools respectively; giving a total of 108 students which was more than the required sample size for this study. For this reason, twelve (12) subjects were selected from each of the sampled schools using random sampling method; and an extra subject was added to each level of substance abuse in both the sampled schools making 5 from the mild, 5 from moderate and 5 from the severe group of substance use in each school giving a total number of 30 subjects. This was done to minimize experimental mortality during the study. The choice of

sample size is in line with the suggestion of Birbaun (2003) that in experimental studies, minimum of 20 subjects are needed inorder to achieve sufficient power and validity. Heppner, Wampold and kivlinghan (2008) equally explained that better result is achieved using limited number of participants in experimental studies and suggested a minimum of 10 subjects. This is the justification for using 24 subjects in this study. After the study, the filled questionnaires of the added numbers were withdawn as there was no experimental mortality.

Random sampling method was important because some considerations were important, for instance, boys' school and girls' school were equally represented. 15 subjects were used for each experimental groups.

The subjects were assigned to each of the experimental groups purposively. According to Obeka (2011) a purposive sampling is a deliberate attempt to use available subjects for a study. He further explains that it is deliberate attempt to screen individuals who are interested in cooperating in a treatment session. It is based on these findings that it is found relevant for use in this study. Table 3.2 below shows the explanation:

Table 3.2Distribution of Sampled Schools and the Sample Size for the Study by Schools, gender and technique

Secondary School	Sample Size	Gender M / F		intervention
Govt Sec Sch. Waka-Biu	12	12	--	Modn of attitude
Govt. Girls Sec. Sch. Shaffa	12	--	12	Socratic dialogue
Total	24	12	12	

Source: Self Selected 2014.

3.5 Control of Extraneous Variables

To be sure that any difference found between pre-test and post-test result is as a result of treatment, some extraneous variables were controlled. It was necessary to identify and control these variables so that the observed changes in dependent variable (substance abuse) can be attributed to the effect (s) of independent variable (logotherapy techniques of modification of attitudes and Socratic dialogue). Several studies, for instance, Glass (1997), Campbell (1985), Deflam (1998), Bagudu (2009) and Obeka (2011) suggest a number of extraneous variables that could pose threat to authencity of findings if they are not adequately controlled. These are effects of testing, absenteism, experimental mortality, time limit and experimental group interactions among others. The methods of controlling the extraneous variables are discussed below:

Test retest effects: The same test was given for pretest and post test, there ispossibility that subjects may be familiar with the test which may affect their responses, this was minimized by an introductory letter and a well prepared questionnaire which explained to the subjects the purpose of the research and assured them of confidentiality of their answers.A verbal explanation followed before filling of any questionnaire.

Absenteeism: This is where some subjects may not be regular during treatment sessions which may affect the result of the treatment. To minimize this, ground rules were established, such as agreement to avail one's self throughout the exercise, not coming late, giving of incentives among others. The subjects of all groups and the trained assistants were given incentives in form of drawing and writing materials, sweets and snacks bought from approved shops in the school. Some were given from the first day of exercise on registration and continued throughout the exercise, the researcher promised workshop bags with stickers having captions, such as 'substance use is

dangerous' or 'keep the school free from substance use' and other relevant information about substance use-disorder to the subjects that successfully went through the exercise. This motivated them and emphasized the importance of the exercise. The researcher made the treatment sessions lively and cordial working relationship was established. This reduced any anxiety that may be associated with the treatment and captured subjects' interest. Tables for the contact periods were made available on registration day before the beginning of the treatment. Table 3.3 below shows the contact sessions time table:

Table 4: Contact Session Time Table

Schools	Days	Time
GSS Waka-Biu	Mondays & Wednesdays	5:05-5:45 pm
GGSS Shaffa	Tuesdays & Thursday	5:05-5:45 pm

This timetable was given to all subjects on registration which helped them in understanding the time the exercises started and ended.

Time limit: The time specified for each contact with the subjects may interfere with the effectiveness of the experiment especially if it will interfere with regular school hours, to minimize this; only games periods, (that is, after school hours) were used for each contact. This added to the confidence of the subjects that their regular class hours were not disrupted because of the experiment.

Experimental mortality: This refers to loss of subjects during treatment stage which may be as a result of absenteeism, death, sickness or any other eventuality. When such happens, it affects the results of the study negatively. So there is need to prepare for this. To take care of this; an extra subjects was added to the actual number of subjects in each level of substance abuse (mild, moderate and severe) in each group under study to take

care of experimental mortality. Their data were withdrawn at the end where there was no loss of subjects.

Experimental group interactions: This is Situation where the experimental and groups interact and possibly discuss the exercise, this may affect the result of the findings. To control this, experimental groups will be purposively assigned to different homogeneous schools.

Gender bias: The design of this study is such that the same technique employed on the male subjects is the same that will be used on the females. This might affect generalization of the outcome of the study; to control this ANOVA statistics which has the ability to reduce within group error variance was used in the analysis of the data in order to minimize the effect of gender.

3.6 Instrumentation

To collect data for this study, the researcher used two instruments; the SAC and the SAQ

a. **SAC:**This consisted of ten items covering presenting needs, immediate needs and level of functioning of the students in relation to substance use.This checklist was distributed to all SS2 students in the three sampled schools who filled and returned to the researcher. Through scoring of this checklist, students who were involved in substance use were selected for the study (See last paragraph under 3.2 for scoring procedure).
b. **SAQ:**This is a questionnaire which comprised two sections A and B,the first section deals with the subjects' demographic variables while the second part deals with questions on (1). Health Status (2). Emotional stability (3). Social supports (4) legal problems (5) academic performance and (6) accommodation.

There were twenty-one questions in this section which was distributed to target subjects in the two experimental groups. This instrument was used for both pretest and post test exercises.The administration was conducted by the researcher personally withassistance fromresearch assistants in each school under study. The objectives of the instruments are to:

a. Identify the students who were involved in substance abuseat various levels (mild, moderate and severe) without bias.
b. assess all round behavioural, social, physical and mental functioning of students who are involved in substance abuse.
c. see the efficacy of treatment techniques on substance abuse.

3.7 Procedures for Data Collection

To collect data for this work, the collection was done in three phases which are: the pre-treatment, the treatment and post treatment phases. In line with the objectives of this research work, a set of questionnaires, SAQ was used for pre test and post test exercises. This was used on all subjects of the study drowned from the three sampled schools. After a familiarization visit to each school by the researcher, the SAQ was administered to the respondents to fill and return to the researcher, this was done at the beginning of the treatment procedure. The subjects were guided by way of instruction on how to fill the questionnaires. The filled questionnaires were analyzed and kept until the end of the experiment. The post test exercise using the same instrument was given to the subjects of the three sampled schoolsafter intervention proper was administered. The intervention proper was carried out for the period of eight weeks in the experimental schools. The data collected was analyzed and compared with the pretest results to see the effect of the intervention strategies mated on the subjects on the behaviour under study.

The pre test and post test results of the three levels based on the two techniques of logotherapy were also compared in order to identify which of the levels responded more to the treatments and to which technique they responded more.Other variables that were assessed are gender and socio-economic status.

3.8 Scoring procedureforSAQ.

The responses will be scored along a five point likert scale to measure the subjects' responses. The scaling is as follows:

Strongly Agree: 5

Agree: 4

Undecided: 3

Disagree: 2

Strongly Disagree: 1

There are maximum scores of 105 obtainable by each subject and a minimum score of 21. All the subjects were those identified to be involved in substance abuse by the use SAC and were found suitable for this study. This instrument was used for both pre test and post test on the two experimental groups. The score on the pre test was compared with the scores of the post test to see if intervention has been effective or not and whether the two logotherapy techniques under study (modification of attitude and Socratic dialogue techniques) have the same or different effects or differences on the variables under study.

3.9 Validation of the Instruments

The SAC was developed by the center for substance abuse and treatment; however, it was adapted in order to suit the academic level of the subjects. Experts in the

Department of Educational Psychology and Counseling, Ahmadu Bello University, Zaria and psychiatric doctors in Teaching Hospital Shika, Kaduna state and Hirku Clinic Biu, Borno state validated the two instruments to ensure their adequacy for the present work. After validation, their inputs were included, and the final version was used. For instance some items in the first draft were dropped, others reframed and others retained. The researcher involved psychiatric doctors because they also use psychotherapy along with medical intervention for those who are involved in substance abuse, so their contributions cannot be over overlooked.

3.10. Pilot Testing

The SAC was pilot tested on SS2 students of Government Secondary School Marama, Borno statewho have been identified by the use of a checklist as being involved in substance abuse. It involved the administration of 21 items SAQ on SS2 students of the mentioned school, student (who are not members of the main study group). 50 students were found to be involved in substance abuse from SS2 students of the above mentioned school.SAQ was given to them to fill and return to the researcher, this is the pre test stage. After 2weeks' intervention, the same instrument was redistributed to the subjects to fill again; this is the post test stage.

3.11 Reliability of the Instrument

The internal consistency and reliability estimate of the instruments (SAC and SAQ) was determined by the result of the pilot study by the use of Cronbach's alpha statistics and test re-test at 0.5level of significance. The results showed reliability coefficients of 0.7761 and 0.7581for both instruments respectively, which indicate that the instruments are reliable and can be used for the study.

3.12 Summary of the Treatment Procedure

The Detailed Treatment Procedure is attached as Appendix iii.

3.12.1 Visitation

This session served as an introductory session of the experiment before treatment proper. The researcher visited the sampled schools to familiarize herself with the school management, the school system and establish good rapport with the affected subjects in their respective schools. The researcher explained to the students what the research is all about and assured them of confidentiality of their responses as stated in the letter covering the questionnaire.

3.12.2The Treatment Sessions

The intervention lasted for 8 weeks and 16 contact sessions, each contact session was 40 minutes and this was for both experimental groups. Mondays and Wednesdays was contact days for experimental school A, Tuesdays and Thursdays was contact days for experimental school B. The days were assigned this way to avoid main market days for each location so that the attentions of the subjects were distracted.

Two experimental groups, Government secondary school, Waka-Biu received treatment using Modification of Attitude technique and Government secondary school, Shaffa received treatment using Socratic Dialogue technique of logotherapy. The SAQ was administered at the beginning of the treatment sessions for each group as the pretest and at the end of the treatment sessions for both groups as the post test.

3.12.3 The Post Treatment Session

This was the phase where the effects of treatment are determined by administering the same instrument (SAQ) to all the subjects in the two experimental and

the control schools after the intervention. This is the post test which was compared with the pre-test results through data analysis to determine the efficacy of the treatment.

Experimental Group A Using Modification of Attitude Technique

The modification of attitude technique was administered to the subjects in 16 sessions, each lasting for 40 minutes. The first session was basically aim at establishing good report between the researcher and the subjects. Ground rules were explained for successful exercise and the researcher instructed them on sitting arrangements which was a round table sitting arrangement throughout the exercise except otherwise. The sitting arrangement chosen strengthened the working relationship. There were incentives for participants throughout all the sessions.

The second session introduced the subjects to substance abuse and the important steps taken in order to quit the behaviour. The third session presented the concept of maladaptive behaviour specificallysubstance abuse. The forth session introduced the concept of the structure of human beings relating it to substance abuse. In the fifth session, the researcherpresented the concept of freedom of choice to create awareness to the ability to choose whichever behaviour to be involved in based on Logotherapeutic views. The sixth session presented the different types of substances of use disorder and their effects on the individual. The subjects were also asked to answer questions that lead to self discovery and reflection.

Sessions seven, eight and nine presented the idea of modification of attitudes and how the subjects can modify their negative attitudes through creative thinking, active involvement in some activities and self reflection. Session ten presented some questions to the subjects aimed at self evaluation. Session eleven presented suitable activities the subjects would engage in to help them develop self control from substance abuse and

learn to appreciate others. Session twelve was presented by asking the subjects to write down their plans of action of how they intended to quit substance abuse. Session thirteen was used for revisions and attending to subjects who had peculiar problems. Session fourteen was used for outing where subjects and the researcher went out togather to watch the school games; this was to encourage subjects' desire for extracurricular activities. The purpose of this was to assist subjects develop alternative behaviour patterns other than substance abuse.

Session 15 was used for post test administration, while the last session, session 16 was the concluding session where the subjects appreciated the people they invited and presented the gifts they bought with the money saved instead of using them on substances. The researcher in turn appreciated them and concluded the exercise officially by presenting to them the workshop bags promised at the beginning of the exercise. There wasexchange of phone numbers and addresses for further contacts whenever there is need.

Experimental Group B Using Socratic Dialogue Technique

The Socratic Dialogue treatment Technique was administered in 16 sessions as well, with each session lasting 40 minutes. Sessions one to six followed exactly the same pattern with experimental group A. Session seven presented the philosophy of Socrates and his method; this was to empower the subjects to know that the solution of their problems (substance abuse) was right within them.

Session eight and nine also followed the same pattern like experimental group A. session ten was presented by asking subjects leading questions about the target behaviour and how they felt about it leading to self-evaluation and reflection. Sessions eleven and twelve followed the same pattern with experimental group A, while session thirteen

waspresented through questions about substance use and consequences which was to spur the subjects into actions toward quitting their substance abuse. Participants were also instructed to get friends or brothers who were involved in substance abuse and help them quit the behaviour by adopting the lessons learnt in today's session.

Session fourteen, fifteen and sixteen followed the same format with experimental group A.

3.13. Procedure for Data Analysis

In order to analyze results of this research, descriptive statistics were used to answer all research questions raised in this study. Similarly, inferentialstatistics were applied to analyze the data. Specifically,

1. The t-test was used to test hypotheses one, two, three, six and seven that is the differences in response to the two techniques; the modification of attitude and Socratic dialogue techniques of Logotherapy, and to find which of the techniques of logotherapy was more effective over the other.
2. Analysis of Variance was used to analyze hypotheses four, five and eight to find differences among more than two variables.
3. The post hoc test was used to identify the extent of significantdifferences that might exist between the pretest and post test treatment results of the subjects based on the two logotherapy techniques on levels of substance use and socio-economic status (subjects' parental level of education).

CHAPTER FOUR

DATA PRESENTATION

4.1 Introduction

This chapter presents the analysis of data of demographic variables and distribution of respondents into experimental groups, treatments, levels of substance abuse and gender. The chapter presented answers to research questions using descriptive statistics and all Null hypotheses were tested at 0.05 level of significance using appropriate statistics. The analyses were presented in tabular forms. Finally, summary of major findings and discussion of the findings were presented.

4.2. Demographic Data of Respondents

The data collected for the study covered the following sub-topics: presentation of demographic data, distribution of subjects in treatment groups, levels of substance use, gender and socio economic status as seen in the tables below:

Table 4.1 Distribution ofRespondents by sampled schools

Schools	Frequency	percent
GSS Waka	1250%	
GSS Shaffa	12	50%
Total	24	100%

Table 4.1 shows the distribution of respondents by school. 12 respondents were sampled from both experimental schools, each constituting 50% giving a total of 100%.

Table 4.2 Distribution of respondents into experimental groups

Group	Frequency	Percent
MAT	12	50%
SDT	12	50%
Total	24	100%

Table 4.2 shows the distribution of respondents into treatment groups. Modification of Attitude and Socratic Dialogue techniques were administered on 12 respondents each, constituting 50% each. The total number of resnts in this study is 24 which represented 100%.

Table 4.3 Distribution of Respondents by Levels of substance

Levels	Frequency	Pecentage
Mild	8	33.3%
Moderate	8	33.3%
Severe	8	33.3%
Total	24	100%

Table 4.3 shows the distribution of respondents by levels of substance use. 8 respondents were selected from the mild group of substance use in all the schools under study which is 33.3%, 8 respondents were selected from the moderate group in the three schools which represented 33.3% and 8 respondents were also selected from the severe group in both schools under study which is also 33.3% giving a total of 24respondents for the study which is 100%.

Table 4.4 Distribution of Respondents by Gender

Gender	Frequency	Percent
Male	12	50%
Female	12	50%
Total	24	100%

Table 4.4 shows distribution of respondents by gender. 12 respondents were selected among the male gender which is 50% and 12 were females which is 50 giving a total of 24 respondents for the study that is 100%.

4.3. Hypotheses Testing

This section presented the results of the null hypothese raised in chapter one of this work.The results of the tests were summarized below:

Hypothesis One: There is no significant effect of Modification of Attitude technique on subjects in experimental group A before and after treatment.

. **Table 4.4.1**: Paired sample t-test on pre-test and post-test mean scores of subjects in experimental group A (Modification of Attitude Technique).

Variable		N	Mean	Df	Std	t-cal	P-value
MAT	Pre-test	12	78.846	22	10.391	'7.97	0.000
	Post-test	12	54.750		17.736		

Significance ($P \leq 0.05$)

Table 4.4.1 revealed that there were 12 students sampled from each of the two groups. The observed t-calculated is 77.97 which is more than the t-critical of 1.96 at the

degree of freedom 22 and the probability level of significance observed in the test is 0 .000 (P<0.05). This indicated that there was significant effect of Modification of Attitude Technique on subjects in experimental group A. Therefore, the null hypothesis that states there is no significant effect of Modification of Attitude Technique on subjects in experimental group A before and after treatment was therefore rejected. This is implies that differences exist between pre-test and-post scores of subjects exposed to treatment by Modification of Attitude Technique of Logotherapy.

Hypothesis Two: There is no significant effect of Socratic Dialogue technique on subjects in experimental group B before and after treatment.

. **Table 4.4.2**: Paired sample t-test on pre-test and post-test mean scores of subjects in experimental group B (Socratic Dialogue Technique).

Variable		N	Mean	Std	Df	t- cal	P-value
SDT	Pre-test	12	78.711	13.313	22	4.245	0.001
	Post-test	12	54.666	19.703			

Sig (P≤ 0.05)

Table 4.4.2 revealed that there were 12 students sampled from groups 2. The observed t-calculated is 4.245 which is more than the t-critical of 1.96 at the degree of freedom 22 and the probability level of significance observed in the test is 0 .001 (P<0.05). This indicated that there was significant effect ofSocratic Dialogue Technique onsubjects in experimental group B. The pre-test for for Socratic Dialogue Technique is 78.711 with standard deviation of 13.313 while the post test is 54.666 with standard deviation of 19.703. Therefore, the null hypothesis that states there is no significant effect ofSocratic

Dialogue Technique onsubjects in experimental group B before and after treatment . was rejected.

Hypothesis Three: There is no significant effect ofModification of Attitude Technique on the three levels of substance abuse.

Table 4.4.3a: Analysis of Variance on effect of Modification of Attitude Technique on the three levels of substance abuse

Sum of squares	Df	Mn sq	Std	F	p-val
Between Groups	7872.971	2	3836.486	52.053	0.000
Within Group	2420.000	9	75.625		
total	10292.971	11			

Table 4.4.3ashowsthe Analysis of Variance on treatment by Modification of Attitude Technique. The result showed f-calculated of 52.053 as against the f-critical of 2.60 and the p-value of 0.000. The f-calculated is greater than the f-critical; therefore the hypothesis that states there is no significant effect of treatment by modification of attitude technique on thethree levels of substance use was rejected. This implies that significant effect of Modification of Attitude Technique on the three levels of substance abuse exists. The direction of the effect was determined using post Hoc test as shown in table 4.3.4a.

Table 4.4.3bPost Hoc Test on effect of Modification of Attitude Technique on the three levels of substance abuse (mild, moderate and severe)

Levels of sub use	N	Subset for alpha =0.05
	Mild	4	36.4022
Scheffe	Moderate	4	47.8000
	Severe	4	74.2531
	Sig		0.251

The Scheffe Post Hoc Test of effect of Modification of Attitude Technique on the three levels of substance abuse (mild, moderate and severe) in table 4.4.3b shows Scheffe result of 36.4022 for the mild level of substance use, 47.8000 for moderate level and and 74.2531 for the severe level at the observed significance level of 0.251 at ($p \leq 0.05$). This implies that Modification of Attitude Technique is more effective on mild level of substance use.

Hypothesis four: There is no significant effect of treatment by Socratic Dialogue Technique on the three levels of substance abuse

Table 4.4.4a: Analysis of Variance on Treatment by Socratic Dialogue Technique on three levels of substance abuse

variables	Sum of squares	Df	Mn Sq	F	p-val
Between Groups	3636.333	2	1818.167	25.796	0.002
Within Group	634.333	9	70.481		
total	4270.667	11			

Table 4.4.4a shows the Analysis of Variance on treatment by Socratic Dialogue Technique on three levels of substance abuse. The result showed f-calculated value of 25.796 as against the f-critical of 2.60 and a significance level of 0.002. The f-calculated is greater than the f-critical; therefore the hypothesis that states there is no significant

effect of treatment by Socratic Dialogue technique on the three levels of substance abuse was rejected. This implies that significant effect of Socratic Dialogue technique on the three levels of substance abuse.The direction of the effect was determined using Post Hoc Test as shown in table 4.3.6b.

Table 4.4.4b Scheffe Post Hoc Test on effect of Socratic Dialogue Technique on three levels of substance use

Levels of sub use		N	Subset for alpha= 0.05
Scheffe	Mild	4	33.5000
	Moderate	4	45.8333
	Severe	4	70.1303
	Sig		0.225

The Scheffe Post Hoc Test of effect of Socratic Dialogue Technique on the three levels of substance abuse (mild, moderate and severe) in table 4.4.4b shows Scheffe test result of 33.5000 for the mild level, 45.8333 for the moderate level and 70.1303 for severe level. This implies that Socratic Dialogue Technique is more effective on mild level of substance abuse.

Hypothesis five: There is no significant effect of Modification of Attitude technique of Logotherapy on male and female.

Table 4.4.5: Independent t-test on effect of Modification of Attitude Technique of Logotherapy on male and female.

Variable	Gender	N	Mean	Std.	t-Cal	Df	P
Modof Attitude	Male	6	54.6000	19.5686	0.062	10	0.95
	Female	6	55.5000	3.5355			

Significance: P>0.05

Table 4.4.5 revealed that there were 6 male subjects and 6 female subject in experimental group A (modification of attitude). The observed t-calculated is 0.62 which is less than the t-critical of 1.96 at the degree of freedom 10 and the probability level of significance observed in the test is 0.951 which is higher than the significance level of P>0.05 . This indicated that there was no significant gender difference on modification of attitude technique. Therefore, the null hypothesis which states there is no significant effect of Modification of Attitude Technique on male and female was retained.

Hypothesis Six: There is no significant effect of Socratic dialogue technique of Logotherapy on male and female.

Table 4.4.6: Independent t-test on effect of Socratic Dialogue Technique of Logotherapy on male and female.

Variables Gender		N	Mean	Std.	Df	t-cal	p-val
Socratic Dialogue Technique	Male	6	55.5000	26.16295	10	.062	.821
	male	6	54.5000	19.95690			

B

Significance: P>0.05

Table 4.4.6 revealed that there were 6 male subjects and 6 female subjects in experimental group B (Socratic Dialogue Technique). The observed t-calculated is .062 which is greater than the t-critical of 1.96 at the degree of freedom 10 and the probability level of significance (P<0.05) observed in the test was .821. This implies that there was no significant effect of Socratic Dialogue technique on subjects in experimental group B. Therefore, the null hypothesis that states there is no significant effect ofSocratic Dialogue Techniqueon subjects in experimental group B was retained.

Hypothesis Seven: There is no significant difference in the post test scores of subjects exposed to treatment by Modification of Attitude and those exposed to treatment by Socratic Dialogue techniques of Logotherapy.

Table 4.4.7: Paired sample t-test on post test scores of subjects in experimental groups Aand B (Modification of Attitude and Socratic Dialogue Techniques of Logotherapy)

Variables	N	Mean	Std.	t-Cal	Df	P
Modification of Attitude Technique	12	54.7500	17.736	0.011	22	0.991
Socratic Dialogue Technique	12	54.6667	19.7030			

Significant at p≤ 0.05

Table 4.4.7 revealed that there were 12 respondents for each of the experimental groups, the observed t-calculated is 0. 011while t-critical is1.96, the table revealed that the t-calculated is less than the t-critical at the degree of freedom 22 and the probability level of significance observed in the test is 0.991 (P >0.05). This indicated that there was no significant difference between the post-test scores of subjects exposed to treatment by Modification of Attitude and Socratic Dialogue techniques of Logotherapy. This implies that both techniques are equally effective in managing substance abuse. Therefore, the null hypothesis which states that there is no significant difference in the post test scores of subjects exposed to treatment by Modification of Attitude and those exposed to treatment by Socratic Dialogue techniques of Logotherapywas retained.

4.4. Summary of Major Findings

After subjecting the data collected to analysis using SPSS parkage version 20, the followingare the major findings of this study:

1. There was significant effect of Modification of Attitude Technique on subjects in experimental group A observed in differences in pre test and post test scores with observed t-calculated of 77.97 with p.value of 0.000 ($p<0.05$).
2. There was significant effect ofSocratic Dialogue Technique onsubjects in experimental group B observed in differences in pre test and post test scores with observed t-calculated of 4.245 with p.value of 0.001 ($p<0.05$).
3. There was significant effect of Modification of Attitude Technique on the mild level of substance abuse determine by the post-Hoc test scores with mean score of 36.4022 for the mild, 47.800 for the moderate and 74.2531 for the severe levels.
4. There was significant effect of Socratic Dialogue technique on the mild level of substance abuse determined by Post Hoc test with means score of 33.50 for the mild level, 45.833 for the moderate and 70.1303 for the severe levels.
5. There was no significant effect of Modification of Attitude Technique on male and female with t-calculated 0.062 and p.value of 0.095 ($p>0.05$).
6. There was no significant effect of Socratic Dialogue Technique on male and female with t-calculated 0.062 and p.value of 0. 821 ($p>0.05$).
7. There was no significant difference in post-test scores of subjects in both experiemental groups (Modification of Attitude and Socratic Dialogue

techniques of Logotherapy with observed t-calculated of 0.011 with p-value of 0.991 ($p>0.05$).

4.5. Discussion of Results

This studyprimarily looked at the efficacy of Logotherapy techniques (Modification of Attitude and Soscratic Dialogue) in managing substance abuse among secondary school students in Borno state. The result was discussed below:

Hypothesis one states there is no significant effects of Modification of Attitude Technique on subjects in experimental group A before and after treatment.The pre-test scores for the subjects in experimental group A was 78.8456and the post test score was 54,750. the t-calculated was 77.66 against the t-critical of 1.96 at ($p\leq 0.05$). This implies significant effect ofModification of Attitude Technique on subjects in experimental group A. The result shows significant reduction in the post test scores which means reduction of substance abuse behaviour among the subjects ingroup A after the treatment. The high pre test score consequently high level of involvement in substance abuse could be attributed to positive attitude the subjects had towards substances while reduced post test scores meant reduced involvement in substance abuse which may be attributed to the treatment. It has been discovered that all the subjects needed was someone to teach them about the negative effects of substances, the freedom of choice to quit or remain and lead them to modify their attitudes towards substance abuse which Logotherapy did.

This finding is in line with the work of Henrion (2002) who conducted a study on the use of logotherapy to manage Alcohol abuse among veterans in a group Counseling. She found out that it was effective in managing alcohol abuse. She concluded that the power of freedom to choose what to become exercisedthrough logotherapy and the

knowledge of inherent ability to rise above every situation that circumvent one was what led to the effectiveness of her study. This study also emphasized will power and understanding of one's problem as a major step towards modification of substance abuse behaviour which the subjects utilized effectively which led to the change observed in behaviour.This study buttressed the attitude change theory of Carl Hovland that attitudes can be modified by changing beliefs, affects or representations of behaviour that people hold in to an attitude objects, in this case substance abuse.This is in line with Frankl's findings in his experiments with logotherapy.Barber (1995) also conducted a study using Modification of Attitude Technique on Juvinile Delinquency and despair and demonstrated that Juvinile Delinquency may be effectively treated by techniques of logotherapy. He explained thatfromthe logotherapy perspective, the underlying dynamic of depression and addiction (substance abuse) is despair and explained the comobidity between conduct disorder, substance abuse and depression in his study; he led youths to change their attitudes from negative to positive ones. Youths were redirected toward more meaningful pursuits such as participating in school activities or after school curricula. His methods were used in this study and it shows that Modification of Attitude Technique of Logotherapy was very useful in modifying the attitudes of subjects toward substance use from positive to negative as done in this study.

Hypothesistwo states there is no significant effect of Socratic Dialogue Techniqueon subjects in experimental group B before and after treatment. The pre-test scores for the subjects in experimental group B was 78.7710 and the post test score was and 54.666.This implies significant effect of Modification of Attitude Technique on subjects in experimental group B. The result shows significant reduction in the post test scores which means reduction of substance abuse behaviour among the subjects in group B after the treatment. The high pre test score consequently high level of involvement in

substance abuse could be attributed to positive attitude the subjects had towards substances while reduced post test scores meant reduced involvement in substance abuse which may be attributed to the treatment.the result shows that skillful questioning of subjects about the causes of substance abuse, the effects and how one could possibly quit from this behaviour enabled them to understand better and suggested ways that helped them change.The subjects in experimental group B responded positively to intervention; this was shown in their active participation and willingness to quit substance abuse during the treatment exercise. The assumption that Socratic Dialogue Technique would be effective in managing substance abuse was upheld. The findingof this work agrees with the finding of Lukas (2002) who conducted a study on Conduct Disorder which could be caused by substance abuse using Socratic Dialogue Technique. He explored the past of the subjects through posing questions and teaching clients to ask questions which he said ameliorate symptoms more effectively in a more meaningful way. He concluded that when clients are opened to their rights to make adaptive choices and freedom to take responsible stand, change becomes sustained. He concluded that every Logotherapy technique aims at a stronger, more improved and more ethically valuable and helpful attitude which this study upheld.

The significant change in behaviour as a result of Modification of Attitude and Socratic Dialogue Techniques agreed with one tenet of Logotherapy explained by Napok and Rao (2007) that the significance of our existence is never fixed one for all, rather, we continually recreate ourselves through our projects. This according to him means man is in a constant state of transformation, emerging, evolving and being a man implies we are discovering and making sense of our existence.However, one can only recreatehimself and be transformed if one is assisted to.

Hypothesis three states; there is no significant effect of Modification of Attitude Technique on three levels of substance use (mild, moderate, severe). The Scheffe Post Hoc result shows Modification of Attitude Technique was more effective on the mild group with mean score of 36.4022, followed by the moderate group with mean score of 47.8000 and the severe level with mean score of 74.2531 at observed significance level of 0.251 with ($p \leq 0.05$). The result of the study shows that Modification of Attitude Technique worked only in favour of subjects in the mild and moderate levels of substance abuse and only minimal effect on the severe level. The study shows thatthe earlier clients are assisted to understand the consequences of their behaviour and help, the easier change is achieved. This perhaps explained why Modification of Attitude Technique was more effective on the mild level of substance abuse and also strengthened its significance to teachers and parents are in position to identify substance abuse at its onset.This study is in line with Henrion's (2004) finding on 'Effect of Logotherapy Techniques on Alcohol abuse' that Psychotherapy works best with mild and moderate levels of substance abuse while a severe level of substance abuse require medical intervention then followed by psychotherapy. The result of this study did not support the belief of Logotherapy that it is inherent in man to rise above any situation, be it physically, socially, emotionally, psychologically or otherwise if one chooses to. This was evident in the fact that most of the subjects in the severe level of substance abuse indicated willingness to change or quit substance abuse, but the intervention was not effective enough to change them though it did to their counterparts in the mild or moderate levels.

Hypothesisfour states; there is no significance effect of Socratic Dialogue Technique on three levels of substance abuse (mild, moderate, severe). The Scheffe Post Hoc result shows Socratic Dialogue Technique was more effective on the mild group

with Scheffe mean score of 33.5000 for the mild level, followed by 45.8333 for the moderate level and 70.1303 for severe level with observed significance level of 0.225at ($p \leq 0.05$). The result of this study shows that Socratic Dialogue Technique of Logotherapy was effective only on subjects in the mild and moderate levels of substance abuse and only minimal effect on the severe level; this is shown in table 4.3.6b. it was discovered that those with severe level of substance abuse did not respond much to probing by the researcher and did not seem to believe that change was possible. The subjects in this group could not suggest any reasonale solution to their problems for the researcher to build on.This study disagrees with the findings of Correy (2008) that clients could more easily choose better behaviour if they come to understand that what they aredoing, thinking and feeling is not simply happening to them they are indeed making choices. The subjects did not believe that the have choice over substance abuse.The result of this study did not support Frankl's finding in Man's Search for Freedom' that the condition around man do not completely condition him, because to some extent, it is left to man whether or not to succumb and surrender to the condition. According to him man is not subject to these conditions that confront him rather the conditions are subject to his decisions. This is evident in the fact that most of the subjects in the severe level of substance use indicated willingness to change or quit substance abuse, they were determined to respond to the treatment but at the end of the exercise, their responses were not positive enough to change them though it did to their counterparts in the mild and moderate levels.

Hypothesis five indicated no significant effect of Modification of Attitude Technique of Logotherapy on male and female. The post test mean scores of male subjects was 54, 6000 with standard deviation of 19.5686 and for female subjects was 55.5000 with standard deviation of 3.5355.The t-calculated was 0.62 and observed p-value of 0.95 at

($p \leq 0.05$). From the result, there was reduced involvement in substance abuse but not specific to any gender.This means the treatment is equally effective on both male and female. This is in line with choice theory of Hovland; that when people understand themselves and understand that what they are doing is a matter of choice, they would change positively. Here both male and female understood the power of self willand exercised it and changed was effective. The result is presented in table 4.3.7. This finding is similar to the findings of SAMHSA (2009) which states that gender differences in drinking rates were less significant among adolescents than among young adults, interestingly, girls age 12-17 years reported greater lifetime substance abuse than boys, (39.1% versus 37.6%) respectively. This age group is coincidentally the secondary school age in the area of study and therefore the age group in this study. The study is however contrary to the proposition of the U.S.Department of Health and Human Services (1990) which reported that males seem to be most vulnerable to substance taking when they are between the ages of 18-29 than the female counter parts. Similarly, in a study conducted by Makonjula, Daramola and Obembe (2007) on Psychoative Substance abuse among Medical Students in Nigerian Universities, the findings revealed that males report more use than the females, and that males are more likely to use tobacco than girls, with a range of 12.6% verses 10.2% respectively.

This study also show contrary result to the findings of Gelhert and Browne (2012) in a study of Substance abuse among Gender and Racial Groups, the finding shows significant gender difference in substance abuse with males at a greater rate than the females. The sharp variation in previous works and the present study is however in the methods adopted in the study. As of the time of this study, the researcher could not lay hand on any work that employed Logotherapy techniques of Modification of Attitude and Socratic Dialogue Techniques on gender. Nevertheless, this finding is in line with

the principles of Modification of Attitude and Socratic Techniques stated by Kazdin (2007) which does not take gender into consideration but rather looks at how clients of both gender can be assisted to restructure their cognition of situations around them thereby becoming better people. This implies that Modification of Attitude Technique of Logotherapy is useful in reducing substance abuse among secondary school students in Borno state.

Hypothesis six revealed no significant effect of Socratic Dialogue technique on male and female. The post test scores of male subjects was 55, 5000 with standard deviation of 26.16295 and for female subjects was 54.5000 with standard deviation of 19.95690. The t-calculated was 0.62 and observed p-value of 0.821 at ($p \leq 0.05$). This means the treatment was equally effective on both male and female. During the treatment session, both male and female indicated willingness and participated well during intervention, they all interacted with each other freely and played active roles in their healing process. This study is in line with the findings of Vonyukov and Tarter (2000) on Factors that determine Substance abuse among Male and Female subjects. The finding revealed that gender is not a factor that determines substance abuse but rather explained that family twin and adoption studies provided overwhelming evidences that variation in the liability to substance abuse is influenced by differences in individual genetic make up. While substance abuse is the result of complex interplay of environmental, psychological and biochemical factors, genetic factors play an important role in the vulnerability to it. Contrary to the report of the U. S. Department of Health and Human Services, (1990) which revealed that males seem to be most vulnerable to drinking problems when they are between the ages of 18-29. Approximately, 14% reporte symptoms of substance dependence during this period and 20% report some negative drinking related consequences. However the age level of subjects in this study falls

between 16-18 years. As of the time of this study, the researcher could not lay hand on any work that employed Logotherapy technique on gender differences in response to Socratic Dialogue of Logotherapy.

Hypothesis seven shows that no significant difference exists in post test scores of subjects in both experimental groups (Modification of Attitude and Socratic Dialogue Techniques of Logotherapy). The post test scores are 54.750 and 54.666 respectively, which did not differ significantly (table 4.3.4). This shows the usefulness of both Logotherapy Techniquesof Modification of Attitude and Socratic Dialogue in managing substance abuse.This upheld the assumption made earlier in this work. This study indicated that logotherapy techniques are effective in managing substance abuse among secondary school students in Borno state. The difference in post test scores of subjects in treatment groups suggest a positive change as a result of the intervention, willingnessof subjects to quit the behaviour under study, and the exposition to the innate ability of the subjects to choose to change willingly. This buttress the findings of Alvarado (2011)in a study conducted on 'the Last Broken Home' that regardless of one's problems, genes,past and what one had seen alone or had learned, like us all; still have the ability and opportunity to choose differently, that is, free will. This finding supports Frankl (2000)'s belief in Logotherapy that the process of healing starts when clients understand that they have will power to rise above their problems tought through exposure to Modification of Attitude and Socratic Dialogue techniques of Logotherapy. Many of the subjects had no idea of their inherent potentials and will power to choose, but when they understood this, they showed their willingness to quit substance abuse. They did agree that they had wanted to quit but how to, was the major problem which agrees with Alvarado's (2011) finding that the mind works against us, and all things are as we

imagine it, unless we have self will and self confidence and trust our ability to change to desirable, more adaptive behaviour, change will be too hard and almost impossible.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter presented the summary, conclusion and recommendations of the study. The major objective of the study was to determine the efficacy of Modification of Attitude and Socratic Dialogue Techniques of Logotherapy in managing substance abuse among secondary school students in Borno state, Nigeria.

5.2. Summary

This study investigated the efficacy of Logotherapeutic approach in managing substance abuse among secondary school students in Borno state. It was structured intofive chaptersin order to effectively carry out this research. Chapter one presented the the nature of substance abuse, its causes development, and effects. It also explained briefly what Logotherapy is and why the resaecher preferred it for substance use above other therapies in background to the study and statement of the problem,. Seven objectives which relates to determination of the efficacy of the techniques under study were stated. Seven research questions and null hypotheses in line with the objectives were formulated and tested. Basic assumptions, significance and scope and delimitation were stated. The second chapter reviewed literatures related to the work. The concepts of substance abuse and Logotherapy were reviewed. A number of theories that explain substance abuse were rerviewed, these included: the Psycho-analytic, the social learning, the Choice and Attitude change theories among othersand empirical works related to the work were presented.

Chapter three presented the methodology of the work which included the research design, population of the study, sample size and sampling technique, the instrument used

for gathering data, reliability validity were presented, the pre-treatment and treatment sessions were discussed. Finally, statistical tools used to analyze the data were presentd.

In chapter four, demographic data of the subjects were presented in tabular form and the null hypothese were tested using t-test and Analysis of Variance. Discussion of the result was presented. The major findings of the study showed that both Modification of Attitude and Socratic Dialogue techniques were effective in managing substance abuse among secondary school students.The study showed that both Modification of Attitude and Socratic Dialogue techniques were effective only on the mild level of substance abuse.No significant difference was found between post test scores of both techniques and no significant effect of both techniques on male and female.

5.3. Conclusion

Based on the findings of this study, the following conclusions were drawn:-

Based on the results of interactions with the subjects, it showed that no one has really been able to bring them close to talk to them about the dangers of substance abuse and to help them quit. That most of the time, people were worried only when they misbehaved.

Greater numbers of the subjects were willing to quit substance and had shown reduction in the rate of substance abuse. They felt remorse for ever engaging in substance abuse.

The subjects really needed someone they could talk to, trust and confide in, one that would understand them and encourage them to quit.

The subjects demonstrated high interest in the treatment and wished they could continue. This was demonstrated in their willingness to keep in contact with the

researcher and their appreciation even to their respective school authorities for allowing them to participate in this program.

5.4. Recommendations

Based on the findings of the study, the following recommendations were suggested:

2. School counselors should be encouraged to understsand students who are involved in substance abuse and appreciate their challenges.

3. School administrators and all teachers in secondary schools should be encouraged to learn and use Logotherapeutic techniques of Modfication of Attitude and Socratic Dialogue techniques to managesubstance abuse in the schools and the society at large.

4. Social workers, medical personnels, Non Governmental Organization and others should employ Modification of Attitude and Socratic Dialogue Techniques in managing substance abuse expecially in secondary schools.

5. Materials/Resources for proper implementation of Logotherapy techniques should be provided to all counseling units in the secondary schools through combined efforts of parents, administrators, philanthropists and Ministries of Education to assist school Counsillors and Psychologists in doing their work.

6. Logotherapy Techniques (Modification of Attitude and Socratic Dialogue Techniques) had no effect on male and female, therefore it should be used on both genders to manage substance abuse.

7. Logtherapeutic techniques should be used more on the mild and moderate levels of substance abuse.

8. Students identified as having severe substance abuseshould be referred to hospitals where they will be treated before subjecting them to Logotherapy techniques.

9. Workshops or Seminars should be organized to parents especially parents of low and high socio-economic status where they will be taught the principles of Logotherapy so that they will manage their children even at home to reduce the burdens on teachers.

5.5 Contribution of this Study to Knowlegde

Thisstudy, 'Efficacy of Logotherapeutic Approach in Managing Substance Abuse among Secondary School Students in Borno State' has contributed to knowledge in the following ways:

1. The understanding of Logotherapeutic Approach as a concept.
2. That Modification of Attitude and Socratic Dialogue techniques of Logotherapy can effectively manage mild and moderate levels of substance abuse among secondary school students irrespective of gender.
3. It has provided source of literature especially of Logotherapy and its techniques for prospective researchers in the Nigerian context.

5.5 **Suggestion for Further Studies**

The following suggestions were made for further studies in this area:

1. Since Logotherapy is relatively a new field of research in Nigerian context, I recommend others to replicate this study and explore other techniques under Logotherapy to ascertain its effectiveness in managingsubstance abuse among students.

2. Other treatment procedures such as time series should also be tried with logotherapy techniques to determine its effectiveness in managing substance abuse in the area of study.
3. Other techniques of Logotherapy should be applied on substance abuse.
4. Logotherapeutic Approach should be tried on other maladaptive behaviours.

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APPENDIX I

3.12 Treatment Session (Detailed Treatment Procedure)

Each of the treatments lasted for sixteen sessions; each session lasted for 40 minutes. There were two experimental groups, Government secondary school, Waka-Biu, which received treatment using modification of attitude technique and Government secondary school, Shaffa which received treatment using Socratic dialogue technique. There were sixteen sessions for each of the experimental schools. At the beginning of the exercises, the pretest was administered for both groups and at the end of treatment sessions, the post test was administered on all the subjects in both experimental groups.

3.12.1 Treatment Procedure Proper:

This section presents the detailed treatment procedure for both experimental groups. The procedures are as follows:

Experimental group A: Modification of Attitude Technique

Session 1:

The session started with interaction between the researcher and the subjects of the study in order to achieve the following goals in the treatment session:

Goals: By the end of this session, subjects were expected to:

1. establish good rapport with researcher and their group members
2. collect workshop incentives and other materials.
3. be conversant with laid down ground rules for the study.
4. fill in pretest questionnaires

Procedure:

Steps

(i). After formal introduction by the researcher and the subjects of the study, the researcher explained to them the ground rules of the experiment. These were:

1. Do not blame, always use self correcting statements
2. Do not command
3. Do not argue
4. Do not patronize substance centers
5. There is never going to be the right time to change, now is the most appropriate time.
6. Always appreciate yourself and others
7. You are free to ask and answer questions when necessary

(ii). The researcher guided the subjects to appoint a monitor who coordinated the activities of the group. After this the subjects were instructed on sitting arrangements which was round table sitting position throughout the intervention sessions except where otherwise stated. The sitting arrangement made subjects felt more involved in the experiment and brought the group members closer socially and emotionally. They developed the sense of belonging to the group and this helped in creating good working atmosphere as they work together toward the common good of the group. Furthermore, by observing, listening and watching one another, attitudes were modified and new skills were acquired from other group members and the knowledge that helped in modifying their attitudes were expanded as they experienced and learned from the attitudes of others in the group.

iii, They were given writing materials, self analysis sheet and a timetable inside as they formally registered for the experiment.

Also the subjects were allowed to choose pseudo- names other than the ones they are known and called with which was used throughout the exercise and numbers were given to them by the researcher which was used on thequestionnaires depending on the group they belong (mild,moderate or severe).

Session 2:

The researcher further explained to the subjects that in trying to stop or minimize substance abuse, will power and freedom of choice is the most decisive factors that help in giving up the habit. So we must be determined in our efforts to control our substance abuse. The experiment started with a game titled 'who am I?' in which cards with different pictures, colours and words each describing different qualities of students displayed on a table at the center of the subjects (for instance picture of a drug addict, smoker, students running to school, students studying their books, the words were: aggressive, friendly, timid, serious, committed, careless, clumsy, carefree attitude, and disciplined among others). Subjects were asked to pick any card of their choice one after the other.

Goa1s: By the end of this session subjects were expected to;

i. develop healthy group membership

ii. exercise the idea of freedom of choice

iii. freely show uniqueness amongst individuals

iv. analyze their substance abuse behaviours by themselves

v. help them develop insight into their problems

Procedures:

Steps:

i. The subjects were asked to pick any card of their choice one at a time and they took turns in describing what is on the cards they have chosen and what it meant toeach of them.

ii. As they described their cards, other subjects listened, asked questions and commented at the end of each discussion.

iii. Each subject was asked to describe orally a picture of how he/she would like to be based on the pictures or words on the cards they have chosen.**iv**. At the end, the researcher asked the following questions and each subject responded orally to the questions posed.

(a) Why did you choose this card?

(b) What relationship did you observe between you and the picture on your card?

(c) How do you intend to achieve being like the picture/word you have chosen?

It was expected that answers to these questions would give them insight into their problems and introduced them to the dea of freedom of choice

Conclusion:Subjects were asked to reflect on the game and what they like and dislike about their behaviours. According to Nayok and Raos (2007) as subjects reflect on their behaviours, it adds to their knowledge

base, strengthens their thinking skills and impacts their values positively.

Home work:

Subjects were asked to list all the things they felt they could change and those things they felt they could not change.

Session 3: Presentation of concept of substance abuse and causes of the behaviour to the subjects in order to achieve the following goals:

Goals:

By the end of this session, the subjects are expected to:

i. be expose to the concepts of substance abuse

ii. Discuss why people use substances

iii. be exposed to the effects of substance abuse

Procedures:

Steps:

i. The homework was discussed and suggestions as to how to maintain good virtues and how to discourage bad ones were highlighted by the subjects and the researcher. The researcher reminded the subjects what transpired last session and raised the following questions that were answered orally:

(a) Who can remember the reason he/she chose a different card?

(b) What are substances?

(c) Why do individuals use different substances?

(d) What are the different reasons that motivate people to take substances?

The answers to the questions were used to explain to them how individuals do things for different reasons. For instance involvement into substance abuse was used as an example.

i. The researcher explained to the subjects that in life there are certain things one can change and some that cannot be changed, and everyone is gifted with unique potential for excellence that defines him/her to his/her destiny and purpose in life. It is left for the individual to make the best use of this God given potential or not. Examples of situations one cannot change are death, terminal diseases and those that one can change are habits, attitudes, feelings and general views of life and some challenges that one might come across. What has been done cannot be undone; therefore, one is called upon to make the best of any moment, be it creatively, emotionally or in suffering because life must continue. The researcher taught the subjects that life is all about choices because, before one does anything, one has to start with choice. That is to say, one can adopt positive attitudes towards situations that may befall one in life thereby minimizing negative thoughts if one decides to. It was expected that this explanation would help some of the subjects who engaged in substance abuse as a result of challenges that confronted them to have a rethink about their behaviours and adopt positive attitude not as in apathy though.

Subjects 'Activity:

(i) The subjects were asked to give examples of substances of use disorder orally.

Conclusions: The subjects were given homework as follows:

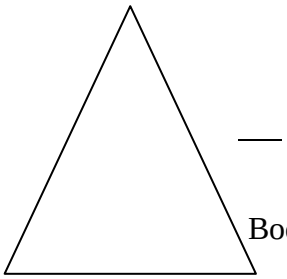
i. Write down at least two reasons in order of importance what made you get involved in substance abuse and two cues to substance taking.

ii. Suggest at least two ways you can cope with it.

It is expected that the answers to the questions will help subjects to have further insight into their problems and begin to think of how to quit substance abuse.

Session 4: The researcher explained to the subjects the triad dimension of human beings which are psyche, noogenic and psychological dimensions through diagrammatic presentation and related it to substance abuse.

Psyche (psychological dimension)



Intuitive (noogenic dimension) Body (the physical dimension)

Goals:

This was to achieve the following objectives:

i. Helping subjects to know that they can be in control of their negative attitudes if they desire to.

iii. Helping subjects understand that the three dimensions of the body need to be integrated fully for one to be wholesome.

Procedures:

Steps:

i. The subjects discussed the previous homework under the guidance of the researcher. This exposed them to the dangers of substance abuse.

i. The researcher asked each subject to state two changes he/she had noticed in himself/herself since they got involved in substance abuse and suggest reasons that accounted for the changes.

It is expected that answers to the questions would help them identify the effects of substance abuse and expected that answers coming from them woudl help them develop their self esteem and commit themselves more to plans to quit substance abuse. This was based on Nayok and Raos' (2007) research work which stated that people will believe more in knowledge they have discovered by themselves than knowledge presented by others, this implies that subjects will readily modify their attitudes easier when they discover their nature than just demanding them to minimize or quit substance abuse.

Subjects' activity:

i. Each subject discussed the social and academic effects of substance abuse with two friends who were into substance abuse.

ii. Suggest to your friend any coping strategy to deal with substance abuse.

It is assumed that as they discuss and instruct their friends on what to do, they would also commit themselves to coping with substance abuse.

Conclusion: The researcher allowed subjects to ask questions and other subjects responded, and the researcher only guided except where there was difficulty.

Session 5:

The researcher presented to the .subjects the concepts of freedom of choice and the innate power to choose the way one wants to live.

Goals: This session was expected to achieve the following objectives:

i. strengthen the subjects' control of their lives

ii expose subjects to the philosophy of logotherapy, that is, freedom of choice.

iii. expose subjects to the fact that they chose to be involved in substance buse and they have the ability to choose to quit.

iv.expose the subjects to the idea that no circumstance is bad enough to make one give up in life.

Procedures:

Steps:

i. The researcher discussed brief history of logotherapy and its basic tenets relating it to substance abuse.

ii. The researcher discussed some of the theories of substance abusedisorder pointing out their relationship with logotherapy.

iii. The researcher explained to the subjects that unless man understands that he holds the key to his freedom, he will continue to be manipulated by circumstances.

1. **Subjects' activity:**

   i. The subjects had a moment of sober reflection on the inherent potentialto rise above substance abuse. As they reflected on what the theories posited in relation to substance abusedisorder and logotherapy, it was expected that they would more deeply be committed, set goals and put energy towards accomplishing their goals.

   ii. Subjects were asked orally to state two things they would like others to do for them.

   iii. The researcher instructed subjects to do for others whateverthey wanted people to do for them. It was expected that when they do it for others and others appreciate them, they would feel good and this serves as the beginning of self fulfillment.

Session 6: This session presented the different types of substances of use disorder to the subjects and the different effects on the body with the aim of achieving the following goals:

Goals:

By the end of this lesson, the subjects are expected to:

i. identify psychoactive substances and their effects on the body.

ii. be enlightened about the consequences of their behaviours to their families, schools and the society as whole.

Procedures:

Steps

i. Each subject discussed his/her homework to the hearing of the other subjects and the researcher.

ii. The researcher and the subjects discussed the different substances of use disorder particularly the psychoactive substances under study (marijuana, tobacco/ nicotine, burkhutu and any other unconventional substances they may mention).

iii. Together, the researcher and the subjects discussed the effects substance abuse on the subjects, families, the school and society as whole.

Conclusion:

To conclude this session, the researcher raised the following questions:

Having known the substances of use disorder and their effects,

(a) What do you intend to do about your involvement in substance use?
(b) Do you have any planned strategy to adopt? If yes, share it with us, if no, why?
(c) what advice can you give your friends out there who take substances?

It is expected that the answers to the raised questions will help subjects to assess themselves and think of ways that will help them quit substance abuse.

Homework: The researcher asked the subjects to find two of their friends who are not part of this intervention exercise and advise them about the dangers of substance abuse.

Session 7: The researcher presented Logotherapeutic technique of modification of attitude in order to achieve the following objectives:

Goals:

By the end of this session, subjects should be able to:

i. see the need to change every negative perception about themselves
ii. be directed toward building self confidence in their abilities
iii. accept themselves as they are and work toward correcting those thingsthat can be corrected and finding value in those things that

cannot becorrected by modifying one's attitude towards their challenges.

Procedures:

Steps

i. The researcher explained to subjects that substance abuse is a challenge that they need to readily and willfully confront but it is not to be seen as a threat or weakness that cannot be eliminated. The subjects were assisted to understand that they are responsible for their own problems and even more importantly, they are the only ones who can really resolve these problems (substance abuse).

ii. The researcher further explained to them that people's level of motivation either to continue in a particular habit or to quit, their affective states and the actions they take are more as a result of their beliefs than what is objectively true. For this reason, they should explore their cognition and self beliefs, evaluate themselves honestly and find alternative behaviour accordingly.

iii. The researcher encouraged the subjects to understand that what has been done cannot be undone, but subjects should focus on theremaining goodness in them and make the best out of life, there is no need to delve in the past but to concentrate on what you can do to minimize substance abuse.

iv. The researcher reminded subject that they are not hopeless victims but can be responsible and helped them become aware that the power to change lies within them.

Subjects' activity:

The researcher asked subjects to say what they considered as self motivation and they were encouraged to act on it, for instance reading story books, clubs and societies, visiting and making good friends among others.

Conclusion:

The researcher concluded this session by giving home work to the subjects.

Homework:

Choose any activity you want from the above (refer to subjects' activity) as well as from the following activities: decorating your family sitting room, laundering for the family or cleaning of your compound and do it this week, write down the obstacles you encounter and other experiences you have as a result of doing your home work so that way forward may be proffered in the class.

Session 8:

The researcher presented the idea of creative thinking through imaginative activity in order to achieve the following goals:

Goals:

By the end of the session, the subjects were expected to:

(i) Have their creative thinking strengthened

(ii) evaluate their values by themselves

(iii) get a new lease of life through imaginative activities and consequent acting out.

Procedures:

Steps:

i. The researcher gave time to each subject to discuss his/her homework to the hearing of co-subjects, where there were obstacles; suggestions were given by the other subjects or the researcher on how to tackle such obstacles. Incentives in form of exercise books and biros were given to those who had done the homework. This was expected to encourage subjects to do their subsequent home works.

ii. the researcher asked the subjects to reflect on their lives so far and to answer the following questions:

1. What do you like best about your life?

2. How would you have preferred your life to be?

3. What are those things you wish to change in your life?

4. How do you intend to go about it?

Each subject was given time to answer the raised questions. It was expected that as each subject answered the questions, their creative thinking abilities would be improved, other subjects were encouraged by the answers of co-subjects, and this helped them to behave in self directed ways.

iii. To lead subjects into creative thinking; the researcher gave them the following instructions: imagine that you have reached a particular age in your life (advanced stage) [you can choose any age]. Now cast your minds back to your past life and do a life review, as you do a life review, answer this question:

What would I have done in order to feel fulfilled before the end of my life?

Subjects' activity:

Scan the materials you have written and under line:

i. significant tasks
ii. significant relationships
iii. meaningful goals
iv. any other thing you would have done to have lived a more fulfilled life.

This exercise was expected to give subjects new lease of life and help them to readjust themselves and modify their attitudes towards meaningful activities as assumed during the mental life review.

Conclusion:

The researcher allowed the subjects to discuss what they had learnt from this experiment while guiding them.

Session 9:

The researcher presented an exercise called the 'mountain range' to the subjects in order to achieve the following goals:

Goals:

This session was expected to:

(a) help subjects think about other people and their values and what those people meant to them.

(b) encourage the spirit of good judgment

(c) encourage self evaluation as they further reflected on their lives.

(d) help subjects move from despair and sadness to hope and joy.

Procedures:

Steps:

i. After revision of last lesson, the researcher asked the subjects to answer the following questions orally:

ii. (a) Who was/were your role model(s)

(b) What influence did he/she they have on you?

The researcher asked the subjects to bring out their coloured pencils and drawing papers provided to them at the beginning of the exercise and:

(a) Draw a mountain range with peaks and valleys

(b) Look at your mountain range and place the people that have influenced your life on the different peaks in order of preference; the higher the peak, the more preference (these could be teachers, friends, family members or other role models)

(iii) Look at the mountain range and the people you have placed on the range and answer the following questions orally

(a) What two qualities do your mountain peak people have?

(b) What value do you have in common with your mountain peak people?

(c) On whose mountain peak would you want to appear and why?

It was expected that answers to these questions would help subjects to re-examine themselves vis-à-vis their role models. It would also help them to work towards modifying their substance abuse behaviours.

Subjects' activity:

The subjects were allowed to ask questions about the exercise and answers to the questions spurred them into actions towards modifying their behaviours.

Conclusions:

The subjects were given 5 minutes to reflect on differences and similarities between themselves and their mountain range people.

Home work:

Write down at least 3 good qualities your mountain range people have and use action words such as 'I have to', 'I need to', and 'I can' to assure you of changes towards becoming like them.

Session 10:

The researcher raised general questions and the subjects answered them orally, this was expected to achieve the following goals:

Goals: By the end of this session, subjects were expected to:

(i) engage in self evaluation
(ii) change from being victims of substance abuse to people with self control.
(iii) see the needs for change.

Procedures:

Steps:

i. During this session, the researcher asked the subjects to read their assignments to the hearing of others one after the other and allowed them to ask questions or comment on co-subjects' home work.

ii. The researcher asked the subjects to answer the following questions orally:

(a) What do you have that you can use to improve your life with?

(b) What attitude do you need to change to improve your life?

(c) How do you intend to go about it?

(d) How would you assist others who are into substance abuse but not part of this intervention program?

(e) How would you feel if you could not continue with your studies as a result of substance abuse?

The researcher advised them to use the first person singular in answering the questions; example, 'I' this would make subjects feel more committed and personal.

Conclusions:

The researcher encouraged the subjects to always see themselves above the disorder and always be engaged in creative activities like clubs and societies, drama groups, reading story books and good novels among others.

Home work:

Find someone in your neighborhood who is involved in substance abuse and counsel him/her on the dangers of substance abuse.

It was expected that as they do this to others, they would feel the impact and also do the same to themselves.

Session 11:

The researcher presented this session by asking subjects to take turn in discussing how they carried out the last assignment, the challenges they faced and the reactions of the friends whom they counseled.

The researcher asked the subjects to say orally what they can do to encourage them quit substance abuse.

Goals:

This session was expected to help subjects to:

(1) develop self evaluation

(2) develop self control

(3) learn to appreciate others as they work together

Procedures:

Steps:

i. the researcher asked the subjects to:

(a) think of a particular thing they do that motivate them to crave for or take substance, encouraged them to change the pattern of that thing or try substituting it with something more useful.

ii. The researcher suggested to the subjects some activities they could do instead of taking substances, for instance if there is crave to take substances,they could try the following:

a. Drinking water
b. Eating favourite fruits
c. Chewing gum

d. Taking a piece of candy

e. Take few minutes on isotonic or isometric exercise to reduce muscular tension

f. calling a friend on phone

iii. The researcher explained to subjects that hence forth, they woulduse the substitution pattern and need to control the taking of any substance.

Homework:

Every subject was instructed to save the money spent on buying substances hence forth till the end of the experiment and they would be asked to use this money to buy a gift to a loved one which would be presented at the end of the experiment. It was expected that this would help them be committed to controlling substance taking and they would make efforts to save even for the sake of the loved ones (taking responsibility). Furthermore, when they are appreciated by the recipients of the gifts, they would be self fulfilled on their achievements.

Session 12:

The researcher presented this session with questions about the last session and how many of them had started saving for their gifts. This was to remind them of their commitment to control substance abuse. This session continued with instructions by the researcher to the subjects to write down their plans of how they intended to quit substance abuse for good, with the aim of achieving the following objectives:

Goals:

By the end of this session, subjects were expected to:

(a) be acquainted with idea of freedom of choice

(b) explore their negative attitudes

(c) find alternative perspective in making plans

Procedures:

Steps:

i. The researcher gave five minutes to the subjects to think about their lives; the events that led to starting to be involved insubstance abuse which they could now exert a level of control and other ways that can helpin sustenance of substance free habit.

ii. Get a picture of how or who you want to be like in your mind, and describe it to the hearing of the others.

iii. Based on the above, they were asked to design a plan of action that would lead to making them the type of person they want to be and avoid the motivating factors leading to substance abuse. This was expected to continue with the process of reduction of substance abuse or total elimination of the habit by the subjects.

iv. The researcher and the subjects discussed each plan of action and assistance was given to those who had difficulties.

Conclusion:

The researcher charged the subjects to go and begin to implement their plans and reminded them that for them to succeed determination is the key word and they should aspire to achieve this.

Session 13:

The researcher presented this session by asking general questions about substance abuse and its consequences, the subjects were allowed toask questions also.

Goals:

This was intended to help subjects to:

(i) remember what they had learnt so far

(ii) find areas of difficulties

(iii) implement what they had learnt during the intervention exercise

Procedures:

Steps:

i. In this section, the researcher brainstormed the subjects about substance abuse. They were asked questions in every area they had treated.

ii. every subject was instructed to choose a partner among the co- subjects and was given the following instructions:

(a) Assume that your partner is a friend, brother/sister, neighbor or schoolmate who is not part of the intervention exercise.

(b) Advice him/her about consequences of substance abuse

(c) Teach him the basic tenets of logotherapy (he/she has a choice, have the inherent potential to rise above substance abuse)

(d) Suggest an activity that he/she would engage in to help him avoid taking substance; this may be reading, games, visits, and any interesting activity to the subjects. This was expected to strengthen their desire to quit substance abuse and change their feelings which would also influence their thinking and doing.

Conclusion:

The researcher told them to go and continue to practice and be of help to others.

Session 14:

This session was an outing session; the researcher took all the subjects to evening games to watch the different games being played on school games field.

Goals:

This session was expected to:

(1) inculcate in them the habit of watching sports activities which is expected to substitute time spent on taking substances.

(2 help them experience the joy of watching or doing things together

(3) stimulate their desires for extra-curricular activities

(4) help them expend excess energy and feel muscular relaxation.

Procedure:

Steps:

i. The researcher revised the last session with the subjects and informed them that today's session would be held outside the classroom

ii. The researcher advised the subjects to behave properly as they go out to watch sports and games activity.

iii. Each subject was advised to pay particular attention and take note of the behaviours of both the participants and the spectators. It was expected that this outing would help them appreciate sports activities and motivate them to take part; this may substitute time taken in taking substances to outdoor activities. It may also help them develop values for friendships, togetherness and sharing.

Conclusion:

The researcher asked them orally what they had gained from this exercise and thanked them for participating.

Session 15:

This session was used for post testing of the subjects. After giving them time to express their views of the outing and what they had observed, the researcher explained to the subjects that a questionnaire would be given to them to answer. They should be honest in answering the questions. Subjects were free to ask questions where there was need. The twenty-one item questionnaire was distributed to the subjects by the researcher with the help of the trained assistance to fill and return to the researcher.

Goals:

This session was intended to:

(a) evaluate the effectiveness of the experiment

(b) officially bring the intervention exercise to an end

Procedures:

Steps. The SAQ was distributed to the subjects to fill. It was expected that the subjects would not have much difficulties filling the questionnaires since they had done it at the beginning of the exercise. This was the post test stage of the experiment.

i. The filled questionnaires were collected and the subjects were dispersed with a word of appreciation by the researcher.

Homework:

The subjects were instructed to come to the next session with the gifts they bought with the money they saved from the money supposed to have

been used in buying substances, they should also invite their recipients if they were not part of the experimental group. These could be people they had advised against taking substances, family members, friends or mountain range people.

Session 16:

This was the officialrounding up of the exercise.

Goals:

i. This was expected to bring to an end the intervention exercise

ii. To show appreciation to the subjects for availing themselves throughout the exercise.

Procedure:

Steps;

1. The researcher appreciated the subjects with a biro and exercise book each and gave them the workshop bags promised at the beginning of the exercise and thanked them for their cooperation throughout the intervention exercise.

ii. Allowed the subjects to present their gifts to the various recipients after the researcher had explained to the recipients why they were chosen by the subjects. The subjects presented the gifts to their recipients with words of appreciation and encouragements.

iii. The researcher gave her phone numbers to the subjects and research assistants and collected their own and informed them of her readiness to assist them whenever there is need.

iv. The researcher encouraged the subjects to continue with their plans and commitment to stop substance abuse and live a life worthy of emulation

by others. She also encouraged them to encourage one another and constantly remind themselves af the commitment to quit substance abuse,this was to help avoid relapse.

v. The researcher gave the subjects time to respond, to share their feelings and experiences during the intervention period.

Finally the session was declared closed.

Conclusion:

The researcher met the school administrators to thank them and inform them of the official closing of the program and also appreciated the teachers that assisted in the course of the experiment.

Experimental Group B Using Socratic Dialogue Technique of Logotherapy.

Sessions 1-6

Same with experimental group 1

Session 7:

The researcher presented this session by asking the subjects if they had ever heard of Socrates or his ideas. From their answers the researcher understood where to start the explanations. This was done in order to achieve the following objectives:

Goals:

By the end of this session, subjects were expected to:

(i) acquire the knowledge of Socratic dialogue principles

(ii) identify that the solutions to their problems lie within them

(iii) to gain new awareness and empowerment

Procedures:

Steps:

i. The researcher asked the subjects the following questions which were answered orally:

(i) Does your name have special meaning?

(ii) Were you named after someone special?

(iii) What do you think about it?

(iv) What character do you have in common with the person you were named after?

i. The researcher used the answers coming from the subjects; the significance of thei names leading to who Socrates was and his philosophy (Greek philosopher who lived from 469-399 BC. He believed that students should not be given answers to learning task, instead questions should be asked and teachers try to draw out pupils' experiences and elicit knowledge which they knew intuitively from them). This is a key tool in the Logotherapeutic toolbox that helps clients discover their potentials.

ii. The researcher began to ask subjects what they understand by substance abuse, causes of substance abuse, effects of substance abuse on health, academics, and social relationships and how to minimize it.

Subjects' activity:

The researcher asked the subjects the following questions which were answered orally:

(i) What do you see as the root cause for substance abuse?

(ii) What possible choice do you have not to be involved in substance abuse disorder?

(iii) If you believe you have freedom to choose behaviour as state by logotherapy, why would you choose substance abuse?

(iv) What attitude can you change now to improve the quality of your life? It was expected that by answering the above questions, they would have more insight into their problems and when they become aware of their choices, they would be compelled to choose which avenue to follow.

Conclusion:

The session ended with questions from subjects and answers from co-subjects with the researcher coming in only where there was difficulty.

Homework:

Having the understanding that the power to quit substance abuse disorder lies in your power; write down a plan of action that would help you quit substance abuse.

Session 8 & 9:

Same with experimental group 1.

Session 10:

The researcher allowed each subject to read his/her homework to the hearing of other subjects, raised some questions which were answered orally, this was intended to achieve the following objectives:

Goals:

By the end of this session, subjects were expected to:

(l) acquire skills of self discovery

(2) develop Self evaluation skills

(3) acquire alternative behaviour patterns

Procedures:

Steps:

i. The researcher asked the subjects to reflect on their lives and mention any outdoor activities they know. They were asked to name as many outdoor activities as they know.

ii. The researcher then raised the following questions which were answered orally by the subjects:

(a) What do you find meaningful right now?

(b) What activity do you like best?

(c) When was the last time you attended an enjoyable outdoor activity?

(d) Which type of activity was that?

(e) Have you ever desired to attend any enjoyable outdoor activity?

It was expected that answers to these questions would help subjects have sober reflections into their behaviours and when they realize that answers to these questions are coming directly from them, they would appreciate themselves and be committed to controlling their substance use disorder.

Homework:

Based on the answers they had given to the above questions, the researcher asked each one of them to choose any outdoor activity of interest (clubs and societies, athletes, sports, visits to area of interest or friends, reading story books, decorating a family sitting room etc) and attend before next meeting. Write down at least two experiences you had in the course of doing your homework.

Sessions 11 and 12

Same with experimental group A.

Session 13:

The researcher presented this session by asking general questions about substance abuse and its consequences, the subjects were also allowed to ask questions. This is to achieve the following objectives:

Goals:

This session was expected to:

(i) remind subjects what they had learnt so far

(ii) help subjects find their areas of difficulties

(iii) further spur them into actions directed toward quitting substance abuse.

(iv) help them implement what they had learnt during the intervention exercise.

(v) ensure that they were benefitting from the intervention

Procedures:

Steps:

i. The researcher brainstormed the subjects about substance abuse, this assisted them to recall what they had learnt.

ii. The subjects asked questions in every area they had treated, this served as revision

iii. Every subject was instructed to choose a partner among the co-subjects and was given the following instructions:

a. assume that your partner is a friend, brother/sister, neighbour or schoolmate who is not part of the intervention exercise.

b. ask him/her questions about consequences of substance abuse

c. ask him/her questions like: do you see yourself as responsible for your present behaviour?

d. What responsible actions would you take to change your present behaviour?

e What do you think about when you have a quite time?

f. How can you be an encouragement to someone this week?

These questions erre expected to strengthen the subjects' commitment to maintaining substance free life.

iv. The researcher further asked the subjects the following questions:

(i) are you happy with your way of life right now?

(ii) what are you going to do about your substance abuse in order to achieve your goals?

(iii) what would you choose to do tomorrow that would be better than today?

Conclusions:

The researcher paid attention to those who had one problem or the other and guided them through further questioning.

Homework:

write down the answer to question 5 above.

Sessions 14, 15 and 16

These sessions were the same with experimental group A.

APPENDIX II

Dept of Psychology and Counseling,

Faculty of Education,

Ahmadu Bello University Zaria,

Kaduna State.

March 2014.

Dear Respondents,

I am a post graduate student of the above institution conducting a research on Efficacy of Logotherapeutic Techniques in ManagingSubstance abuse among Secondary School Students in Borno State. You are required to respond to the questionnaires by ticking the options that best describes your feeling; there is no right or wrong answer. All answers will be treated with utmost confidentiality and will be used for the purpose of this research work only.

Thanks for the anticipated cooperation,

Yours faithfully,

Mercy B. Wakawa.

Substance abuse Checklist (SAC)

Instruction: please fill in as it applies to you.

Section A: Bio-data

1. Subject's Id No.----------
2. School ----------
3. Gender----------

Section B.

1. Which substance do you frequently use?
    a. Wewee (Marijuana) [ ] b. Nicotine/tobacco [ ] c. burkhutu [ ] d. None [ ]e. Others [ ].
2. How many times do you take substance(s) in a day?
    a. 00-1 [ ] b. 2- 3 [ ] c. 4-5 [ ] d. 6 and above [ ].
3. Do you find it difficult to refrain from taking substance in places where it is forbidden, such as Church, Mosque, and library? Yes [ ] No [ ]
4. Do you take substance when you are ill and receiving treatment? Yes [ ] No [ ]
5. Do you feel remorse after taking substance? Yes [ ] No [ ]
6. Have you ever fell in trouble with your teachers as a result of substances? Yes [ ] No [ ]
7. Do you crave for substances at definite time of the day? Yes [ ] No [ ]
8. Have you ever missed lesson as a result of taking substances? Yes [ ] No [ ]
9. Has any of your family members ever complained of your substance taking behaviour? Yes [ ] No [ ]
10. Have you ever fought as a result of substance abuse?

Yes [ ] No [ ]

Source: Center for Substance Abuse Treatment, @

http://.www.chestnut.org./l/apss/CSAT/protocols/ RETRIEVED, 2014.

APPENDIX III

Substance abuse Questionnaire (SAQ)

Section A- Demographic Data

Instruction: Please fill in this as it applies to you.

School ----------

Id number ----------

Gender [M] [F]

Socio-economic Status: (Parent's Educational level): Non formal--Secondary sch ( )

OND/NCE ( ) BSc and above ( ).

Section B:

Instruction: Please tick the answer that expresses your opinion, there is no right or wrong answer.

S/N	Items	SA	A	UD	D	SD
	A. Emotional Stability					
1.	I feel comfortable in the company of others when under the influence of substance.					
2.	I cannot take good decisions due to substance abuse.					
3.	I always love staying in isolation when under the influence of substance abuse					
4.	I have attempted to quit substance taking without success.					
	B. Social Supprt					
5.	My parents give me enough money to buy substances					
6..	I feel bold and fearless under the influence of substance					

7.**I** take substance in order to belong to my group

C. Health Status						
8.	I often hear noise in my ears when I am under the influence of substance/					
9..	I always experience sleeplessness as a result of substance abuse.					
10.	I have virtually lost appetite for all types of food					
11.	My health is deteriorating as a result of substance abuse.					

12.	D. Accommodation My family members always complain about my substance abuse					
13.	I live with my parents in a rented house					
14.	I owe a room to myself in my house					
15.	My family members always complain about my unkempt appearance when under the influence of substance.					
	D. Legal problems					
16.	1 feel there should be legal penalty for people who trade/abuse substances					
17.	I always get into trouble with my teachers as a result of substance abuse					
18.	I always quarrel with people around me due to the influence of substances					
	E. Academic Performance					
19.	My academic performance has dropped as a result of substance abuse.					
20	I often miss lessons due to substance abuse disorder					
21.	I am always absent minded in the class as a result of the influence of substance					

Source: Center for Substance Abuse Treatment:

http://.www.chestnut.org./l/apss/CSAT/protocols/ Retrieved, 2014.

Appendix iv

4.3. Answering the Research Questions

The seven research questions raised in chapter one of this work were answered below using descriptive statistics. Mean scores and standard deviations of the pre-test and post-test scores of the groups under study were presented in tabular forms as the tables below show:-

Research Question One: ***What is the efficacy of Modification of Attitude technique on subjects in experimental groupA before and after treatment?***

Table 4.6 Shows the difference in Pre-test and Post-test mean scores of subjects in *experimentalgroup*A.

GRP	N	Pre-test	Post-test	Std	Mean Diff
M AT	12	78.8456	54.7083	18.33381	24.1373

Keys:GRP—Group; M AT -- Modification of Attitude Technique

Table 4.6 revealed that pre-test scores of subjects exposed to treatment by Modification of Attitude Technique is 78.8456 and the post test score is 54.7083, the mean difference between the pre-test and post test scores of subjects in experimental group one is 24.1373. A reduction in mean score implies that there is improvement in the behaviour. Although the questionnaires were not in negative form, attitudes toward substance abuse changed from positive to negative. This shows that Modification of Attitude technique was effective in managing substance abuse among students in secondary schools in Borno state.

Research Question Two: ***What is the efficacy of Socratic Dialogue technique on subjects in experimental group B before and after treatment?***

Table 4.7 Shows the difference in Pre-test and Post-test mean scores of subjects in *experimental group B (Socratic Dialogue technique.*

GRP	N	Pre-test	Post-test	Std	Mean Diff
SDT	**12**	**78.7710**	**54.6667**	19.7038	24.1043

Key: GRP—Group; SDT-- Socratic Dialogue Technique

Table 4.6 revealed that the pre- testscores of subjects exposed to treatment by Socratic Dialogue Technique is 78.7710, the post-test score is 54.6667 and the standard deviation is 19.7038 while the mean difference is 24.1043. In this work, a reduction in mean score implies that there is improvement in the behaviour under study. Although the questionnaires were not in negative form, attitudes toward substance abuse changed from positive to negative. This shows that Socratic Dialogue Technique is effective on substance abuse among students of secondary school in Borno state.

Research Question Three: What is the efficacy of Modification of Attitude Technique of logotherapy on the different levels of substance abuse? (mild, moderate and severe).

Table 4.8:shows efficacy of Modification of Attitude Techniques of logotherapy on the different levels of substance abuse (mild, moderate and severe).

Treatment	***Level***	***No***	***Mean score***	***Std***
MAT	Mild	4	11.8958	1.2346
	Moderate	4	34.3333	2.8868
	Severe	4	40.3750	2.8870

Table 4.8 shows that the post test mean score for subjects in the mild group is 11.8958 with standard deviation of 1.2346 and that of moderate group is 34.3333 and the standard deviation is 2.8868 while that of the severe group is 40.3750 with a standard deviation of 2.887. A reduction in mean score means improvement in the behaviour under study, in this case, substance abuse. The result therefore shows that Modification of Attitude technique is more effective on the mild group, followed by the moderate group and then the severe group.

Research Question Four: What is the efficacy of Socratic Dialogue Techniques of logotherapy on the different levels of substance abuse? (mild, moderate and severe).

Table 4.9:Shows efficacy of Socratic Dialogue Techniques of logotherapy on the different levels of substance abuse? (mild, moderate and severe).

Treatment	*Level*	***No***	***Meanscore***	***Std***
SDT	Mild	4	30.5556	0.5811
	Moderate	4	49.2778	1.3584
	Severe	4	78.5000	5.2599

Table 4.9 shows that the post test mean score for subjects in the mild group is 30.5556 with standard deviation of 10.5811 and that of moderate group is 49.2778 and the standard deviation is 1.3584, while that of the severe group is 78.5000 with a standard deviation of 5.2599. A reduction in mean score means improvement in the behaviour under study, in this case, substance abuse. The result therefore shows that Socratic dialogue technique is more effective on the mild group, followed by the moderate group and then the severe group. Summarily, both logotherapy techniques are more effective on the mild levels of substance abuse.

Research Questions Five: *What is the efficacy of Modification of Attitude Technique of Logotherapy on male and female?*

Table 4.10:Efficacy of Modification of Attitude Technique of Logotherapy on male and female.

Treatment	*Gender*	*N*	*Mean*	*Std*
MAT	*Male*	*6*	*43.6800*	*19.5686*
Female	6	66.4200	3.5355	

Table 4.10 shows the mean score of male subjects exposed to treatment by Modification of Attitude Technique is 43.6800 with standard deviation of 19.5686 and that of the Female is 66.4200 with standard deviation of 3.5355. The result suggests that Modification of Attitude Technique is more effective on the males than on the female subjects looking at their mean scores.

Research Questions Six:What is the efficacy of Socratic Dialogue Technique of Logotherapy on male and female?

Table 4.11: Efficacy of Socratic Dialogue Technique of Logotherapy on male and female?

Treatment	*Gender*	*N*	*Mean*	*Std*
SDT	*Male*	*6*	*55.5080*	*26.1300*
	Female	6	54.5000	19.9569

Table 4.11 shows the mean score of male subjects exposed to treatment by Socratic Dialogue Technique is 55.5080 with standard deviation of 26.1300 and that of female is 54.5000 with standard deviation of 19.9569. The result suggests that Socratic Dialogue

Technique is more effective on the Female than on the Male subjects looking at their mean scores though the difference is very minimal.

Research Question Seven: What is the difference in post test scores of subjects exposed to treatment by Modification of Attitude and Socratic Dialogue techniques of logotherapy?

Table 4.12: Shows the difference in post test scores of subjects exposed to treatment by Modification of attitude and Socratic Dialogue techniques of logotherapy.

Variable	Treatment gps	N	Mean Scores	Std
Post test Sores	Mod of Attitude	12	54.7083	18.33381
Soc Dialogue	12	54.6667	19.7038	

Table 4.12 shows that the post test mean scores of subjects in experimental groupsA and B (Modification of attitude and Socratic Dialogue techniques are 54. 7083 and 54. 6667 respectively, which implies that there is a difference in the mean scores of subjects in the two groups. However, there is only slight mean score difference of 0.0416 with modification of attitude having higher mean score than Socratic dialogue technique5