



**Thesis
By
UGWU LEONARD**

**THE DEPARTMENT OF
PSYCHOLOGY
UNIVERSITY OF
NIGERIA, NSUKKA**

**SUBSTANCE ABUSE AS STRESS
COPING STRATEGY
IN A DEPRESSED ECONOMY**

1999



0 1 DEC. 1999

02.04.02
UGW
11994

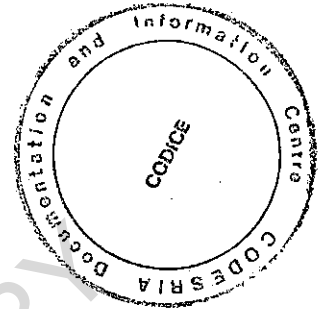
**SUBSTANCE ABUSE AS STRESS COPING STRATEGY
IN A DEPRESSED ECONOMY**

BY

UGWU LEONARD

**A THESIS PRESENTED TO THE
DEPARTMENT OF PSYCHOLOGY
UNIVERSITY OF NIGERIA
NSUKKA**

**IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE
DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D) PSYCHOLOGY**



CODESRIA - LIBRARY

AUGUST, 1999

CERTIFICATION

Mr. LEONARD UGWU, a post-graduate student of Psychology has satisfactorily completed the requirements for research work for the degree of Doctor of Philosophy in Psychology.

The work embodied in this thesis report is original and has not been submitted in part or in full for any other diploma or degree of this or any other University.



Prof. O.N. Osuji
Supervisor

Prof. B.N. Ezeilo
Head of Department

CODESRIA - LIBRARY

DEDICATION

*To my children
Ugwu, Leonard (Junior)
Chikadibia, Nnamdi and
Chidubem*

CODESRIA - LIBRARY

ACKNOWLEDGEMENT

In effort to produce a piece of work of this kind, certain difficulties were inevitably encountered and solved with the help of many benevolent individuals.

First and foremost, I am unreservedly indebted to Prof. O.N. Osuji - my thesis supervisor, whose benevolence, considerate disposition and open door approach to my problems enkindled in me the vigour, rigour and determination I hardly could have known existed in me. I will forever remain grateful to him most especially for his swiftness in reading the work.

I also owe same gratitude to Profs. B.N. Ezeilo, Ozioko and Eyo for the relevant information they made available to me. They created a parent-son atmosphere that encouraged and sustained the tempo of the work throughout the inception and preparation of the study. I cannot go to enumerate their selfless and untiring individual contributions in shaping me, rather I would say that when the names of my benefactors are published, their names will be written in gold ink.

I cannot be less grateful to my parents, Mr and Mrs Uroko Nwa Onah and relations especially my uncle - Anthony O. Ugwu on whose shoulders lie my university education. I also owe gratitude to J.S. Ugwu, Samuel Ugwu, and Ignatius Ugwu for their moral and social support.

Also worthy of mention are my friends - Vincent Asogwa, Obiora Anichebe, and Eddy Onyeneje for their contributions in providing me with warmth and intellectual discussions that sustained the tempo of the work.

Furthermore, my immense gratitude goes to my wife - Dorothy Ugwu, for her understanding, love, warmth and encouragement which sustained me throughout the duration of this study and especially for reminding me of the need to complete the project.

I also owe immense gratitude to CODESRIA for supporting this project.

Juliette Ugwuja's typesetting of the manuscript is very gratifying.

Ugwu Leonard
August, 1999

ABSTRACT

Substance abuse as stress coping strategy in a depressed economy was investigated in this study.

A sample of 236 participants (198 females and 38 males) were selected from schools located in rural and urban areas. The participants are all teachers in the selected schools.

Two instruments were used in this study namely: (i) a 20-item stressful life events questionnaire and (ii) a 15-item substances of abuse questionnaire. These two instruments were developed and validated by the researcher.

The following hypotheses were tested:

1. There will be positive relationship between perceived stress and substance abuse.
2. More males than females will indulge in substance abuse when faced with stressful life events.
3. Married people will engage in more frequent substance abuse than their counterparts who are single.
4. Literate urban dwellers will indulge in more substance abuse than the literate rural dwellers.
5. Married people will experience more stress than their counterparts who are not married.

The Pearson-r and Analysis of Variance (ANOVA) statistics were used to analyze the data. Results of the Pearson-r indicated that there was a significant positive relationship between felt stress and frequency of substance usage. The higher the individual's reported level of felt stress, the higher the level of substance usage.

($p < 0.05$).

Further analyses revealed that more males than females indulge in substance abuse as stress coping strategy ($p < 0.05$).

Married people reported higher frequency of substance use than their counterparts who are unmarried ($p < 0.01$).

The result also revealed that there was no significant difference between urban and rural dwellers on the frequency of drug use.

The findings and the limitations of the study were discussed and some of their implications and areas of future research highlighted.

TABLE OF CONTENTS

	Page
Title Page	i
Certification	ii
Dedication	iii
Acknowledgement	iv
Abstract	v
Table of Contents	vi
List of Tables	viii
Chapter One	
Introduction	1
Objective of the Study	5
Chapter Two	
Literature Review	6
Theoretical Review	7
Perspectives in the Etiology of Drug Use	7
The Social Learning Perspective	7
The Socio-Cultural Perspective	8
The Rational-Emotive Perspective	9
The Personality Perspective	10
The Pharmacological Perspective	10
The Psychodynamic Perspective	11
The Biological Perspective	12
Perspectives in the Etiology of Stress	13
Empirical Review on Stress and Substance Abuse	16

Sex Differences and Substance Abuse	19
Sex Differences and Stress Perception	23
Individual Differences in Vulnerability to Stress	26
Consequences of Drug Abuse	29
Statement of Problem	34
Hypotheses	34
Operational Definition	34
Chapter Three	
Methodology	36
Procedure	38
Design/Statistics	39
Chapter Four	
Results	41
Summary of Major Findings	44
Chapter Five	
Discussion of Results	45
Implications of the Findings	51
Limitations of the Study	52
Recommendations for Further Research	52
Chapter Six	
Summary and Conclusion	54
References	55
Appendices	

LIST OF TABLES

	Page
1. Categories of Effects of Drugs	33
2. Correlation Coefficients of Stressful Life Event Scores (ST) and Substance Abuse Scores (SUB)	41
3. Analysis of Variance for Unequal Sample Size on Stress	42
4. Analysis of Variance Summary Table for Unequal Sample Size on Substance Abuse	43

CODESRIA - LIBRARY

CHAPTER ONE

INTRODUCTION

Substance use is a common feature of the human society. The issue of substance use has been of great concern to various governments of the world. This is even so when people over indulge in the use of some substances which is the abuse stage.

Substance abuse is an important social issue and one which is beginning to receive much research, as well as public attention in Nigeria and, indeed, Africa in recent times. The first major problem in considering drug abuse is to define a drug. This is difficult because in general conversation the word is used in many different ways. Many people, for example, do not think of alcohol, aspirin or nicotine as being drugs. Others use 'drug' when they really mean narcotics whilst another group would include many manufactured chemicals in the list.

The following are some examples of definitions which have been used in a more specific context as presented by Cornwell and Cornwell (1993).

- Any substance used in the composition of a medicine. This includes many of the commonly used substances, but excludes some commonly used ones such as nicotine and tetrahydrocannabinol in Cannabis.
- Any chemical substance which alters a mood, perception or consciousness and is used to the apparent detriment of society. This includes most of the substances which are misused by people but excludes many medically useful substances such as aspirin.
- Any substance taken into the body which brings about a physiological change. This definition also creates problems as it includes substances such as basic nutrients and water but possibly excludes some psychotropic drugs.
- Any substance which when taken into the body may modify one or more of its physical or mental working functions.

This is probably the best working definition to use as it does not exclude any substances which are considered to be drugs but it does perhaps include some, like water or nutrients, which are not usually thought of as being drugs. But for the purpose

of this study, the term substance abuse refers to the use of a drug that constitutes a significant hazard to oneself or others.

Although substance abuse represents one of the most pressing and problematic conditions that faces adults and adolescents in Nigeria, not much attention has been given to its causes. Infact, there are many reasons why some people become involved in drug abuse, though often this is only a transient phase. Many young people try one or more of the available drugs out of curiosity or because of peer group pressures but do not become regular users. Some do remain occasional users, however, and others, often quite quickly, become dependent on their drug dose. It may be necessary to categorize drug abuse, but it must be remembered that some people change their behaviour and move from one category to another. Three categories can be identified. They are: drug experimenters, take it or leave it, and compulsive users. Experimenters are people who try a drug once or may be a few times but then cease to use it. The cessation is usually due to a fear of the harmful effects of the drug or of becoming dependant upon it. Tobacco, marijuana and amphetamines are the main examples of drugs which many people experiment with but do not continue to use.

With many of the so-called 'soft drugs' there are large numbers of people who indulge fairly regularly but at intervals. These people have no compulsion to continue usage but do so when they are in conducive places or in the company of other users. The compulsive users are those who must use the drug at regular intervals, usually several times a day, and whose drug often interfere with normal social and economic functioning. In these people, there is at least a craving for the drug but often a physical and/or psychological dependence on the drug with unpleasant symptoms if the drug is unavailable for any reason.

Some personality factors identified as possible causes of substance abuse include low self-esteem, alienation, external locus of control and impulsivity (Owie, 1988; Mbosowo, 1988; Katrick, 1993; Sijuwola, 1989; and Ayanniya, 1991). But the researcher contends that stress, occasioned by the present economic crunch in Nigeria, appears to be the major cause of substance abuse. Consequently, the role stress could play in substance abuse in Nigeria still remains undetermined. Stress is very pervasive in our environment and is tied with our life. For instance, human beings are constituted

in such a way that they function best under conditions where moderate demands are made upon them. But in his environment, man is constantly being confronted with a lot of obstacles emanating from his internal as well as external environments. These obstacles interfere with his ability to gratify his needs and complicate his efforts to maintain and actualize himself. Such obstacles detrimentally affect his ability to adjust, especially in situations where severe demands are made upon him. This may then disrupt human adaptive functioning such that he may turn to substance abuse as means of coping with such situations. However, it is not arguable that stress is a sign of the times. No one really knows whether today's Nigerian populace experience more stress than their predecessors, but it does appear that their stressors have increased with the introduction of the structural adjustment programme with its attendant problems such as unemployment, underemployment and general economic depression. Apart from the above mentioned factors, many circumstances, big and small, can produce stress in the lives of the people. This is because stress is all-class embracing as it respects neither status, sex, age, health condition, colour nor nationality. Infact, there is stress everywhere and it has life in all living things. The life span of stress commences and co-extends with the life span of the victim; terminating only when the life is completely terminated. Even the termination of the life of the individual by stress is stressful to the living. Therefore, studying how individuals appraise and cope with stress cannot be over emphasized. According to Lazarus and Folkman (1984), coping encompasses cognitive and behavioural strategies used to manage stressful situations. However, this definition avoids the problem of confounding coping with outcomes by its emphasis on the efforts to manage the stress, regardless of whether they work.

In the last decade, there has been an explosion of research into how individuals cope with stress. For instance, Beehr (1992) pointed out that one major factor that affects vulnerability to stress is social support, that is, one's network of social and family ties. The person who is alone physically or psychologically (for example, emotionally alienated from others) is more vulnerable to stress than someone who has strong social relationships (Cohen & Wills, 1985; Pilisuk, Bylan, & Acredolo, 1987). In spite of Nigeria's cultural values which reinforce social support in the form of extended family system, some people still indulge in substance abuse as stress coping mechanisms.

For instance, Ebie Tongue (1988); Abosedo & Edoho (1993); Abiodun, Adelekan, Ogunremi, Oni & Obayan (1994); and Ona (1984) have, at different times, studied the conditions that favour substance abuse across Nigerian population. Common among their findings is that substance abusers tended to abuse one substance or the other when faced with stressful life events.

Apart from stress, other factors associated with substance abuse as identified by Nwabuzo include:

- Anxiety
- Low self-image, inferiority complex
- Depression
- Curiosity
- Lack of motivation
- Peer group pressure
- Unrestricted availability of drugs
- Broken homes, poor parental guidance
- Educational/Occupational failures
- Rapid growth of high technology
- Urbanization and development.

Although some of these substances of abuse are acceptable activity in some societies, for example, caffeine, minor pain-killers, nicotine, alcohol, and kola nuts, the problem of substance abuse arises when such substances are consumed in a way that is detrimental to health. This is because most of these substances when taken in a great quantity impair the abusers occupational and social functioning. For instance, many personal and social problems are associated with alcohol abuse.

Alcohol affects almost all systems of the body, including nervous, gastrointestinal, circulatory, respiratory, endocrine, and reproductive systems, giving rise to a variety of physical and mental health disorders (Obot, 1993). However, the problem with alcohol, like other substances of abuse, goes beyond damage to the health of consumers or other children. Alcohol abuse has social, economic and psychological implications; the effects are felt by members of the alcohol abuser's family and the

society at large. The cost to industry as a result of absenteeism, lateness, work-related accidents and decreased inefficiency is tremendous.

Data from western countries show that alcohol is involved in 40% of motor vehicle accidents, 10% of all deaths of people under 25 years in Britain, 10-40% of admission into general hospitals (Royal College of physicians, 1984). In Nigeria, the danger of excessive drinking to the health and social welfare has been underscored by many researchers and commentators (e.g. Odejide, 1989, Obot, 1989).

In the area of mental health, two studies in Nigeria have demonstrated the deleterious role of alcohol abuse in psychopathology. The study by the International Council on Alcohol and Addictions (1988) showed that alcohol was second to Cannabis in the number of cases admitted into four psychiatric hospitals covering a period of five years (1984 - 1988).

Other psychological problems associated with alcohol abuse include: hang over, alcohol dependency, amnesia, and abstinence syndrome (Cornwell and Cornwell, 1993).

In spite of the glaring consequences of substance abuse, many Nigerians, across the population, still indulge in substance abuse. Perhaps one of the facilitating factors of substance abuse in Nigerian environment is that there is an indiscriminate sale of drugs by druggists or pharmacists, patent medicine dealers and street vendors and hawkers, whose stores, to say the least, are manned by unqualified people. Other substances such as illicit gins, alcohol, and cannabis could be procured at nooks and crannies. In addition, there is no strict control over the production, distribution, and consumption of such substances.

OBJECTIVE OF THE STUDY

This study, therefore, aims at the following:

- (1) To verify the incidence of substances of abuse as stress coping strategy.
- (2) To verify the predominant sex of substance abusers.
- (3) To do a taxonomy of stressful life-events associated with substance abuse.
- (4) To do a taxonomy of substances abused in Nigeria as stress coping strategy.

CHAPTER TWO

LITERATURE REVIEW

Since the beginning of history, humans have searched for substances that would sustain and protect them and also act on their nervous system to produce pleasurable sensations. According to Santrock (1990), smoking, drinking, and taking drugs reduce tension and frustration, relieve boredom and fatigue, and in some cases help individuals escape the harsh realities of their world. Carroll (1989), in his study, maintained that drugs provide pleasure by giving inner peace, joy, relaxation, kaleidoscopic perceptions, surges of exhilaration, or prolonged heightened sensation. But the use of drugs for personal gratification and temporary adaptation, carries a very high price tag: drug dependence, personal and social disorganisation, and a predisposition to serious and sometimes fatal diseases (Gawin, 1989). Thus, what is intended as adaptive behaviour is maladaptive in the long run. For example, prolonged cigarette smoking, in which the active drug is nicotine, is one of the most serious yet preventable health problems. Smoking has been described by some experts as "Suicide in slow motion" (Santrock, 1990).

This chapter which focuses on the review of literature will dwell on the following areas:

1. Theoretical Review which will focus on the different perspectives in the aetiology of drug use
 - the social learning perspective,
 - the socio-cultural perspective
 - the rational-emotive perspective
 - the personality perspective
 - the pharmacological perspective
 - the psychodynamic perspective
 - the biological perspective, and
 - the genetic model.

2. Theoretical review focusing on the perspectives in the etiology of stress
 - the life events model
 - the stimulus-oriented model
 - the response-based model
 - the transaction model
3. Empirical Review on Stress and substance Abuse.
 - Relationship between stress and substance abuse
 - Sex differences and substance abuse
 - sex differences and stress
 - Individual differences in vulnerability to stress
 - person-environment Fit Theory by Blau (1987)
 - Mcgrath (1976) concept of stress
 - The facet Analytical concept by Shiron (1982)
 - Consequences of stress.

THEORETICAL REVIEW

PERSPECTIVES IN THE ETIOLOGY OF DRUG USE

Various explanations and theoretical propositions have been advanced to unravel the relatively widespread use of drugs by people (Rainwater, 1974). According to Tater (1988), no single factor appears to cause the development of substance use and its related problems, rather substance abuse is an aggregation of risk factors that predict substance abuse outcomes.

THE SOCIAL LEARNING PERSPECTIVE

The social learning perspective emphasises the impact learning has on enhancing the initiation and maintenance of drug use behaviour. This theory proposes that individuals who experience a great deal of stress learn that drugs may decrease anxiety and tension. This learned response to decreasing stress becomes a positive reinforcer and the individual continues to use drugs until a stage when physical dependence may develop. Conger (1956) proposed the tension reduction model of drug use. This author maintains that drugs like alcohol is consumed for its tension reduction

properties. The tension reduction model of drug use is based on the premise that increased tension constitutes a heightened drive state, as such, drug consumption has the reinforcing property of lowering drive by reducing tension and such drive reduction reinforcement strengthens drug use. Drug users in the social learning context are seen as having learned from past experience and through social conditioning to anticipate that drugs will solve their problems. Peele (1987) maintains that drug use behaviour is a learned response to highly emotional states of an individual or highly charged setting; drug use is a learned behaviour that results from reinforcement of pleasurable experiences or from the avoidance of negative ones. In accordance with this assertion, Rachlin (1970) points out that whenever certain behaviour increases pleasure or decreases discomfort, such behaviour functions as a reinforcer for the individual. Consequently, the specific behaviour that resulted either in a reduction in discomfort or an increase in the level of comfort is likely to be repeated.

The social learning model of drug use seems to have added a new dimension to the understanding of the etiology of drug use ignoring the importance of intrapsychic dynamics and the biological make up of an individual in the development of drug use. It has been criticized for being too superficial and mechanistic.

THE SOCIO-CULTURAL PERSPECTIVE

According to Doweiko (1990), the social cultural theory of drug use focuses on the forces in the individual's interpersonal environment that bring about or support drug use. These environmental forces, as this author reveals, include the culture in which an individual is raised and such social forces as the family, peer group and social expectations for chemical use. Vaillant (1983) points out that the cultural patterns of drug use are very important in the determination of normal and abnormal drug use patterns. Each society has certain set of attitudes and feelings about the use of specific chemicals within the culture. Doweiko (1990) while highlighting Szasz (1988) opinion maintains that the society has made an arbitrary decision to classify some drugs as dangerous and others as being acceptable for social use. Meyer (1989) reveals that the existing societal attitude towards the use of specific chemical is an important factor in the shaping of an individual's drug use pattern. However, Nathan (1980) stresses that

cultural patterns alone does not predict drug use; social influences play roles in the translation of this potential into actual drug use; usually youths look upon drug use as a sign of entry into adulthood and the adolescent peer culture often encourages repeated drug use. Goldstein and Goldstein (1975) describe three general conditions in a society that may contribute to the incidence of drug use:

- a. The degree of stress and tension produced by a culture,
- b. Attitudes towards drug use held by a culture,
- c. The degree to which substitute means of gaining satisfaction and coping with stress are provided by a society.

The socio-cultural perspective seems to have made some contributions to the conceptualization of the etiology of drug use. With the emergence of the socio-cultural perspective, the initial concern with the individual's psychological and/or biological functioning as the causal factors in the drug use has extended to include concern with the role of factors in the socio-cultural environment in bringing about and/or maintaining the use of drugs. However, the influence of biological and psychological factors in initiating and maintaining an individual's drug use cannot be overlooked.

THE RATIONAL-EMOTIVE PERSPECTIVE

The rational-emotive perspective holds that individuals engage in drug use because there is a belief that drugs will enable them to get relieved from problems; drug use is regarded as a way of coping with problems or stress. Drug users may believe that they are in a hopeless situation and judge themselves as worthless. Such thinking leads to feelings of guilt or depression: drug use is therefore perceived as a way of relieving the unpleasant emotional states temporarily (Ellis, McInerney, DiGuise and Eager, 1988). The rational-emotive perspective highlights the impact low frustration tolerance has in bringing about unpleasant emotional states.

The rational-emotive perspective in the etiology of drug use seems to have enlarged and broadened the outlook on the conceptualization of drug use. It has stressed the importance of internal mediating processes such as perception and

cognitive appraisal in bringing about drug use. However, it has been criticised for ignoring the role of biological and social factors in bringing about drug use.

THE PERSONALITY PERSPECTIVE

Proponents of the personality view point hold that there are certain personality characteristics that make people vulnerable to drug use. According to Winokur, Reich, Rimmer and Pits (1970), low frustration tolerance, emotional immaturity, feelings of inadequacy, need for power and dependent personality characteristics have all been associated with the initiation and development of drug use. Nathan (1988) reveals that people with antisocial tendencies and depression are vulnerable to drug use. Selzer (1980) reiterates that individuals who use drugs display significantly more depression, paranoid thinking trends, aggressive feelings and acts and have significantly lower self-esteem. Ekstrand (1985) observes that individuals who use drugs appear to be immature, compulsive and possess low self-esteem as well as a belief that they are not living up to their own goals and standards and are unable to tolerate failure. Sher and Levcnson (1982) find that individuals who experience a greater than usual reduction in autonomic stress reactions with the help of drugs are at a higher risk for continued use of drugs.

The personality perspective in the etiology of drug use has added a new dimension to the understanding of the causal factors in drug use. Although the direction of the relationship between personality characteristics and drug use has not been clear; some evidence suggest that personality characteristics may often be the result rather than the cause of drug use (Vaillant and Milofsky, 1982).

THE PHARMACOLOGICAL PERSPECTIVE

According to the pharmacological model of drug use, the properties of a drug can play a role in maintaining the use of drugs. Meyer (1989) while agreeing to this proposition reveals that the pharmacological characteristics" of a drug could serve as risk factors in the use of the drug as well as the dependence on the drug. Gold (1980) emphasizes that some drugs are constituted in such a way as to be capable of altering one's feeling state and this factor goes a long way in strengthening the continued use

of such drugs. According to Wicker (1973), most drugs possess pharmacological reinforcement is as a result of properties and this pharmacological reinforcement is as a result of interaction between certain pharmacological effects of a drug and the sources of reinforcement may be direct or indirect. It is said to be direct if the sources of reinforcement had not been engendered by the drug itself or indirect if the contrary is true and the sources of direct pharmacological reinforcement may be built into the central nervous system or acquired in the course of personality development.

The pharmacological perspective in the etiology of drug use seems to have broadened the horizon on the conceptualization of the causal factors in drug use. The model has stressed the role of the properties of drugs in maintaining the drug use behaviour. However, this perspective seems to have relegated the impact of learning and culture in initiating and maintaining the drug use behaviour to the background.

THE PSYCHODYNAMIC PERSPECTIVE

According to the psychodynamic theory of drug use, drug use is regarded as a means of achieving gratification of unfulfilled needs of individuals during the early psychosexual stages of development. Drug taking, as this perspective maintains is a means of gratifying oral pleasures that were denied during the oral stage of psychosexual development. Another psychodynamic explanation of drug use holds that traumas experienced during childhood, especially during the oral stage of development leads to repression of painful conflicts. Encounter with situations similar to the original conflicts results in the experience of symptoms like anxiety, depression and hostility. Drug use therefore serves to release inhibitions and allows the expression of such gratification (Sue, Sue and Sue, 1990). The object relations viewpoint, which is another psychodynamic explanation of drug use stresses the role of drugs in helping individuals cope with conflicts, interpersonal relations and other stressors in the environment. According to Price and Lynn (1986), severe ego impairment involving difficulties with basic drives such as aggression and dependencies may be etiologic factors in drug use. Blum (1966) reveals that people use drugs because of underlying emotional conflict or pathology; by using drugs, they derive pleasure on the one hand, and relief from psychic pain, on the other.

The psychodynamic perspective in the etiology of drug use seems to have broadened the outlook in the understanding of the causal factors in drug use. It appears that unfulfilled needs during the early stages of development and interpsychic conflicts could culminate in drug use in adulthood. However, the psychodynamic model in the aetiology of drug use has been criticized for exaggeration of the role of unconscious processes in shaping the drug use behaviour, for being too deterministic and for neglect of cultural differences in the shaping of behaviour. Freud's psychodynamic theory has also been criticized for over stressing the instinctive aspects of personality . The Neo-freudians (Adler, Jung, Sullivan, Erikson and Horney) maintain that personality is shaped more by people in an individual's environment as well as the culture operating in such environment.

THE BIOLOGICAL PERSPECTIVE

The Disease Model

Jellinek (1960) proposed the disease model of drug use.

According to this model, deviant drug use patterns such as addiction is a reflection of a "disease". This author claims that deviant drug use pattern in the form of addiction is very much like other physical disorders and therefore should be regarded as an illness. Jellinek maintains that deviant drug use pattern is a "disease" that presents symptoms just like other diseases and has a progressive course in which the individual ultimately loses control over his drug use behaviour.

The Genetic Model

The genetic model of drug use maintains that there exists in individuals a genetic predisposition to use chemicals. According to Tarter (1988), individuals who indulge in drug use have "inherited behavioural traits that predisposed them to drug use. Twin studies have indicated that children whose parents were drug users are more likely to be drug users than adopted children whose biological parents were not drug users. Goodwin (1985) states that two types of deviant drug use exist: familial and nonfamilial. According to this author, the familial type of deviant drug use does not show a family history of drug use and is presumably influenced by the environment. Genetic or

biochemical diversity both within and between differences in response to drugs; individuals are susceptible to deviant drug use because they metabolize drugs differently.

Although the biological model of drug use has contributed immensely to the conceptualization of the etiology of drug use, it has been criticized on the ground that it seems to focus only on the physical or physiological basis of behaviour without regard to the environmental or psychological factors. It seems to have neglected the problems in living which according to Szasz (1961) could lead to drug use. It also seems to have ignored empirical findings that emphasize the importance of environmental factors such as interpersonal causes of behaviour in the shaping of personality.

PERSPECTIVES IN THE ETIOLOGY OF STRESS

The Life-Events Model

According to the life events model of stress, life events produce changes that require major adaptation and have the potential to trigger stress reactions. This model of stress is based on the premise that life events are etiologically related to stress and that increased exposure to life changes may be related to the experience of stress. Holmes and Homes (1970) noted that events that lead to stress reactions need not be of crises proportion; seemingly small, everyday events could also create stress. These authors found that any life change, even positive ones could elicit stress reactions. However, Sarason, Johnson and Siegel (1978) disclosed that only undesirable life events were associated with stress.

Although life events are known to influence vulnerability to stress, internal mediating processes, psychological factors as well as social factors play roles as moderating factors in the stress experience. According to Nweze (1984), an individual's vulnerability to stress and the stress process are mediated by the social as well as psychological factors which the individual has at his disposal. Social factors such as social support can play a role as a moderating factor in stress experience. Also, psychological factors such as the perception of the appraises regarding a particular event, the way he or she evaluates or appraises stressful events, the coping resources of the individual, the previous experiences the individual has acquired in dealing with

stressful events in his or her life, the individual's self concept and his or her personality dispositions, to a large extent influence the way the individual reacts to aversive events in his or her life. Control or perception of control over the environment also appears to influence vulnerability to the effects of stress (Sue et al; 1990).

Although the life events model of stress seems to have broadened the scope, the exact part that life events play in bringing about stress does not seem very clear; there may be possible interaction effects between physical constitution and psychological states of the individual and the life events themselves.

The Stimulus-Oriented Model

This view of stress opines that stress is the experiencing of specific types of stimuli. According to this perspective, stress is seen as resulting from excessive demands on an individual (Johnson, 1986). Basic to this view is the belief that there are many identifiable stimuli or situations that invariably result in stress if experienced. The stimulus-based model focuses on the nature of stressful stimuli. According to Crider, Goethals, Kavanaugh and Solomon (1983), this view asks the question, "what is it that makes certain stimuli stressors?". Three important characteristics of stressful stimuli have been identified: overload which occurs when a stimulus becomes so intense that we can no longer adapt to it; conflict which occurs when a stimulus simultaneously arouses two or more incompatible response tendencies and uncontrollability.

The stimulus-based model is important in helping to predict the kinds of stimulus individuals find stressful. This means that stress reactions may be eliminated or reduced by modifying stimulus characteristics. A major limitation of the stimulus-based model is that not all people find the same stimuli equally stressful. Thus there is need to take individual differences into account.

The Response-Based Model

The response-based model of stress attempts to identify the patterns of psychological and physiological responses that occur in difficult environments. This perspective is perhaps most clearly reflected in the view of Hans Selye. Selye (1956) characterised an organism's response to continued stress in terms of what has been

called Generalized Adaptation Syndrome. According to this model, the initial response to any stressor is an alarm reaction that involves a generalized mobilization of the body's defensive force, which are designed to enable the organism to cope with the situations. During this stage, the organism may experience a range of physiological changes. With the continuation of stress, this alarm reaction is followed by a stage of resistance. During this stage, many of the bodily processes activated during the alarm phase return to somewhat more normal levels. However, despite the fact that the organism appears to adapt to the continued stress, the resistance of the organism is reduced and the ability to deal with new or increased levels of stress is significantly diminished.

This model of stress has demonstrated the fact that many different stressful events or stressors produce a similar syndrome of responses. However, it has been criticized for failure to describe the characteristics of stressors. To predict whether a certain event will produce a stress symptom, there is need to understand the characteristics of stressful stimuli. This model has also been criticized on the ground that it relegated the role subjective definition or interpretation of events play in triggering stress to the background.

The Transaction Model

According to this perspective, the stressfulness of environmental events is heavily dependent on the person's view of these events; whether the person sees them as threatening or nonthreatening, desirable or undesirable, controllable or uncontrollable and that the impact of potential stressors on the individual depends on the available resources the individual has for dealing with these events (Johnson, 1986). Central to this view is the concept of appraisal. Apparently a number of processes intervene between the stressor and the development of stress. The thoughts we have about impending threats (stressors), the emotions we attach to them and the actions we take to avoid them can either increase or decrease the impact of stressors. Lazarus (1969) noted that stress resides neither in a person alone nor in the situation alone but is a transaction between the two.

The transaction model of stress seems to have broadened the outlook on the conceptualization of stress. It has stressed the role individual differences play in the experience of stress. However, it neglected the nature of stress reactions or stimulus conditions most likely to produce such reactions.

EMPIRICAL REVIEW ON STRESS AND SUBSTANCE ABUSE

Mullen, Gold, Belcastro and McDermott (1993) identified some of the more common signs and symptoms of stress which include, among others, the following: headaches, difficulty sleeping (insomnia), worrying, and rapid breathing. World Health Organization (WHO, 1996) gave yet another typology of signs and symptoms of stress as follows: in the mind, body, behaviour, and in relationship with other people. Symptoms of stress in behaviour, according to WHO(1996) include: reduced activity, no energy; over activity and inability to rest (restlessness); taking alcohol or drugs such as Indian hemp to relieve tension; difficulty in concentrating on one task; and sleep problems. These problems are usually treated with varieties of drugs such as benzodiazepine anxiolytics (Healy, 1993). The rationale for the use of these drugs in management of stress is that they are anxiolytics (Wheatley, 1990; Healy, 1993; and Priest, 1988). This means that when taken, they give clients a relaxing warm glow.

However, it should be equally noted here that some of these drugs have side-effects. For instance, when some of these drugs are taken over a period of time, they may cause slurred speech, double vision and sometimes staggering (Healy, 1993; Shadeer, 1994).

Other drugs which some specialists present for the treatment of stress-related problems include the following: Depixol, Melleril, and Stalazine (Healy, 1993). The reasons behind the use of these drugs for stress management borders on the fact that these drugs reduce tension and promote relaxation.

Apart from the above mentioned drugs that are recommended by specialists for the treatment of stress-related disorders, there are other substances that are used to manage stress, some of them include alcohol, tea, coffee, tobacco, and other hard drugs such as marijuana, heroin, and cocaine. In an empirical study, Warburton (1980) found a link between stressors, alcohol and tobacco use. These agents were used,

most often, as a form of self-medication. These findings were confirmed by Robertson (1992). Both studies reported the use of alcohol as a specific coping device by all sub-groups except the single women that use tobacco instead.

The coping strategy adopted by any given individual under stress is a function of the satisfaction derived from such strategy. For instance, if the use of drugs has been the best way of relieving himself of stress, when similar situation calls, he goes for the same drugs, and perhaps may even increase the dosage of these drugs. Some researchers, for instance, have shown how use of certain agents like tea to relieve stress feelings may motivate them to graduate to coffee, kola nuts, tobacco, alcohol (Ojiji, Dagona, and Tamen, 1993; Obot, 1993). This gateway theory may possibly explain why an individual may graduate from these agents into the use of hard drugs.

Alcohol and tobacco appear to be the commonest substances that people take when they are faced with stressful situations. This is because people, according to Davis (1990), always show a subjective anticipation of alcohol's effectiveness in dealing with stress. This then explains why people who have some symptoms of stress, like feeling anxious, worked up or burdened with daily hassles may resort to the use of alcohol as a coping strategy. In line with these subjective anticipation of relief is the report by Priest (1988) that alcohol relieves tension and anxiety, produces emotional dis-inhibition that may boost one's confidence and may result in relaxation.

However, the use of alcohol in the management of stress has certain drawbacks. First, it is a passive coping technique that is purely defensive in nature and as such, fails to deal realistically with the stressful condition (Nweze, 1982). Second, it may produce a rebound effect, that is, it may make one more distressed or tearful than before embarking on the drinking spree. Third, it may make one restless and distressed as one needs to constantly pass urine.

Other substances taken as stress coping mechanisms include tea, coffee, and kola nuts. For instance, when people feel depressed, sometimes they may take tea, coffee, or kolanuts in order to brighten up and face the issue at stake. This may seem like a valuable method of dealing with stress as coffee, tea, kola contain natural stimulants such as caffeine that may make one feel lively, improves one's alertness and makes him feel happier. The major side-effect of these substances is that when taken

in large quantities may cause other symptoms that may resemble stress reactions such as trembling palpitations, and insomnia.

In earlier study, Alman, Taylor and Nathan (1972) studied the relationship between stress and drinking behaviour. Three chronic alcohol users took part in a thirty-two day study in which relationships between experimentally imposed stress and alcohol consumption, mood and psychopathology were explored. Results showed that subjects drank most during periods of stress. In a related study, Baer and Mclaughline (1981) examined alcohol use among students in the seventh grade in relation to life events, daily hassles, the supportive quality of the family environment, coping and anxiety. A total of four hundred and twenty-five students (two hundred and twenty-eight boys and one hundred and ninety seven girls) were sampled.

Analysis of result showed that subjects who used alcohol in greater frequency were those who reported more life events, more daily hassles and more conflict in the family.

In a study, Wewers (1988) examined past cessation factors of stressful events and coping response used when tempted to smoke to determine their contribution to relapse among ex-smokers. One hundred and fifty subjects from smoking cessation clinics were contacted at three months after quitting. Questionnaire that measure current smoking behaviour, stressful events that occurred since quitting and coping responses when tempted to smoke were administered. Results indicated that abstinent subjects reported fewer stressful events as well as the use of problem-focused coping responses than partially and totally relapsed subjects. It was concluded that work-related stressful events and the use of problem focused coping responses when tempted to smoke play important roles in determining smoking behaviour during the immediate post-cessation period.

Begley (1998) also examined the coping strategies and situational stressors as predictors of employee distress and turnover following an organizational consolidation. Six coping strategies were used: action planning, positive reintegration, acceptance, seeking emotional social support, intention to quit, and using alcohol or drugs.

Two stressors, the extent to which a unit was affected by the consolidation and consolidation related stress, were used. Two indicators of distress, mental distress and

somatic complaints, were measured at three time periods: three months prior to, shortly after, and six months after the consolidation. The coping strategies were assessed three months prior to and in response to the consolidation. Findings indicated that intention to quit and consolidation stress predicted mental distress while positive reinterpretation, use of alcohol or drugs and lower unit impact predicted somatic complaints shortly after the consolidation. Six months later, the main predictor of mental distress and somatic complaints was use of alcohol and drugs. But it is noteworthy to mention here that coping strategies that alleviate distress in the short term may aggravate it in the long term. For example the use of alcohol or drugs may blot out difficult emotions temporarily but do not change the stressor or one's relationship to it.

Drew (1988) studied acculturation stress and alcohol usage among Canadian Indians who had immigrated from reserves to Toronto were interviewed to identify and obtain frequencies of experience of specific acculturation stressors, to identify which stressors were the most difficult to cope with and to determine if alcohol was used to cope with acculturation stress. Results obtained revealed that two thirds of the subjects used alcohol to cope with stress.

Swan, Denk and Parker (1988) implicated stress as the most significant factor responsible for relapse in male and female ex-smokers. Three hundred and twenty nine ex-smokers (149 males and 180 females) who maintained abstinence for at least three months prior to intake were followed up for one year to ascertain individual characteristics from cognitive, behavioural and health domains that were predictive of later relapse. Multiple logistic regression analysis revealed significant associations between stress variables in male and female relapse in smoking behaviour.

SEX DIFFERENCES AND SUBSTANCE ABUSE

There is also available research evidence which indicates that female substance abusers are emerging in large proportions from diverse backgrounds. For instance, Mejta, Van Berschot Vermillion (1981) reported that there are as many female substance abusers as males. But Obot (1993), in his study, reported a higher percentage of women, than men in alcohol consumption. However, he cautioned that

the relatively very small number of women in the sample makes it difficult to make strong comparative assertions. He then called for a separate study of drinking among women. In addition, some investigators and clinicians (Onadeko & Awotedu, 1983); Odejide, Ohaero, Adelekan & Ikuesan, 1989) continually allude to the incomplete and inadequate information available on females' substance use and abuse. This could be attributed to cultural practices, as in Nigeria, where the use of substances by women is frowned at.

Webb, Snogross and Thargard (1978) investigated sex differences in life-event experiences using a sample of forty-two male and forty-eight female psychiatric patients. Exposure to stress was assessed using the Social Readjustment Rating Scale. The range of scores indicating the magnitude of life crises were used to assess exposure to stress.

Analysis of data obtained revealed that there was no significant difference between the sexes in overall life events scores. However, a difference was found in the frequency with which men and women experience seven of the life events. Males reported more involvements with the law (Jail, Law violations) and more vocational (work and business readjustment) related experiences; whereas females reported more personal (injury, illness, changes in family) events.

Carlson & Davis (1988), explored the demographic variables associated with recreational substance use among college students. Eight hundred and thirty-two college students were given the Wellness Activity Profile, a questionnaire that includes sections yielding demographic and recreational substances differed from non users. There was composite gender difference in substance use; more males were found to engage in substance use more frequently than females.

Ihezue (1988), in a study of the incidence of drug and alcohol use among students of the University of Nigeria, Enugu Campus, found that sex differences exist in drug and alcohol use. He classified his subjects into frequent users, cannabis users and non users. Males used drugs more frequently than females.

But Carjo, Hagland and Smedby (1988) studied the pattern of psychotropic drug use in a Swedish community of about 20,000 population. The results of his findings reveal that no sex differences existed among users of psychotropic.

In another study of drug consumption among University students in Spain, Quifo, Alvarez and Valasco (1988) investigated drug consumption in 1984 among 2,921 students in the University of Valladolid, Spain. Results revealed that drug consumption was more frequent among male students. "Curiosity", search for pleasure and happiness and "new sensations" were the principally reasons for drug consumption except for amphetamines and tranquilizers which were principally consumed as a "study aid".

Bailey (1992), examined multiple substance use patterns in adolescence in relation to the role of heavy alcohol and cigarette use in a cohort of 4,192 secondary school students who were surveyed three times over a four year period. A comparison of common substance use patterns for males and females showed no significant sex differences.

Madianos, Gefon Madianou, Richardson and Stefanis (1995) engaged in a cross sectional survey of psycho-social issues, drug use, alcohol and health in Greece. A sample of 2,448 aged 12-17 and 18-24 was used in the study. Factors potentially associated with illicit and unprescribed drug use were tested by logistic regression analysis. Sex was related to higher lifetime use of illicit drugs; males reported higher lifetime use of illicit drugs than females.

A lot of researches on the issue of drug use were limited to specific types of drugs. Brower and Angelin (1987) explored the epidemiology, risk factors and prevention of adolescent cocaine use. The risk factors for initial cocaine use were found to include lack of social connections to family and school, peer influences and psychopathology. A significant sex difference in cocaine use was found, males engaged in cocaine use more than females. Berkowitz, Allan and Perkins (1987) in their study reviewed gender differences in collegiate alcohol use as presented in literature from 1975 to 1986 with respect to overall differences in drinking motivations, consequences and differences in drinking motivations and consumption patterns. It was concluded that there is considerable agreement in the literature regarding overall gender differences; men drink more often, in greater quantities, with more negative consequence and are more likely to get drunk.

Medina and Kaempffer (1991) scrutinized national literature dealing with the smoking problem in Chile which was published between 1988 and 1990.

Results indicated that more males than females indulge in smoking in order to forget their problems. In another study, Olademeji and Fabiyi (1993) investigated trends in alcohol consumption among Nigerian undergraduates. The study was designed to elicit information on age, sex, quantity of alcohol intake and reasons for drinking. A sample of two hundred and sixty-eight males and females was used. A comparison of trends in alcohol consumption between the sample of two hundred used by the researchers in 1984 and the sample of two hundred and seventy-six used in 1988 was made. The result showed that the sex distribution of alcohol users has changed remarkably. More female students were observed to be regular users of alcohol as compared to the earlier sample (the 1984 sample) in which males were found to be more regular users.

Adelekan, Abiodun and Imoukhome-Obayan (1993) studied the psycho-social correlates of alcohol, tobacco and cannabis use in a Nigerian University. The survey was conducted among undergraduate students of the University of Ilorin, Nigeria. Results obtained revealed that males smoke more often than females. Betson (1997) also engaged in a cross-sectional survey in which both children and parents completed questionnaires. A significant difference was found between the smoking behaviour of boys and girls; boys were found to smoke more frequently than girls. Ifeagwazi (1997) carried out a study on sex differences in brand preference and amount of alcohol consumption by undergraduates of the University of Nigeria, Nsukka. Three hundred (150 males and 150 females) randomly selected undergraduate drinkers participated in the study. Data were collected by means of questionnaire. Data analysis using chi-square statistics and percentages showed significant sex difference in brand preference for wine and beer but no statistically significant sex difference was found for palm wine, stout and hot drink. There was significant sex difference in the amount of alcohol consumption for all brands of alcohol considered in the study. Male undergraduates consume alcohol and in higher quantities than their female counterparts.

Ikuesan (1994) maintained that alcohol abuse among the womenfolk in Nigerian culture is viewed with seriousness. This is because culture prohibits alcohol abuse among the womenfolk in Nigeria.

The roles of Nigerian women are circumscribed, and these women are least expected to engage in certain socially unacceptable behaviours that could be at best only pardoned if males were to behave in this way.

Women who misuse alcohol in Nigeria suffer enormous psychological and social damage besides the physical complications experienced by alcohol misuser. They are considered as social misfits; their "sins" are visited upon their children and extended family.

Following the above findings by Ikuesan, it appears that the prevalent significant gender differences on substance abuse could be attributed to the fact that women substance abusers may not even accept ever taking such substances to avoid the wrath of the social pressures.

SEX DIFFERENCES AND STRESS PERCEPTION

Uhlenhuth and Paykel (1973) study was on symptom intensity and life events. A total of three hundred and seventy-three subjects at two university psychiatric facilities were used in the study. There were 45 in-patients, 21 day-patients, 147 out-patients and 160 non-patients (most of whom were relatives of patients) in the sample. The subjects on initial clinical counter were asked to report on their symptoms over the past year, employing instruments that yielded qualitative indices of symptom intensity and life stress. Result showed that there were sex differences in stress scores, females had higher stress scores than males.

Webb, Snodgrass and Thargard (1978) investigated sex differences in life event experience using a sample of forty-two male and forty-eight female psychiatric patients. Exposure to stress was assessed using the Social Readjustment Rating scale. The range of scores indicating the magnitude of life crises were used to assess exposure to stress. Analysis of data obtained revealed that there was no significant difference between the sexes in overall life event scores. However, a difference was found in the frequency with which men and women experience seven of the life events. Males

reported more involvement with the law (jail, law violations) and more vocational (work and business readjustment) related experiences; whereas females reported more personal (Injury, illness, changes in family) events.

In another development, Dobson (1980) carried out a study on the sources of stress to sixth form students. A 50-item questionnaire was designed to elicit information on the sources of stress among two hundred and twenty-three sixth form students in a school in the North of England. Results showed that about two-third of the students felt that being a student preparing for a public examination caused them either "a lot of stress" or "extreme stress". Twenty-nine sources of stress correlated with self reported student stress and the items relating to examination "Pressures" was consistently associated with higher levels of stress. There was no significant difference between males and females in their responses.

Joe (1985), in his work on stress amongst a group of undergraduate teacher trainees, analyzed data obtained from ninety-five subjects comprising thirty-two females and sixty-three males. The subjects were asked to assess how stressful they felt as students on a four-point scale student stress inventory. They were also asked to rate themselves on a seventeen item stress symptoms inventory as used by Kyriacou and Sutcliffe (1978). Analysis of data obtained reveal that no significant sex differences in students' perceived sources of stress was found.

Chaleby (1986) carried out a retrospective study of psychosocial stress and psychiatric disorders among 150 female and 120 male psychiatric patients in Saudi Arabia. Results indicated that the number of females reporting stressful life events was higher than that of males.

In a related study, Aro (1987) found that the life stress scores were greater for boys than for girls. Similarly, Tolan, Miller and Thomas (1988) found that gender differences in the level of experience of stress were minimal. They utilized eighty-four adolescents aged 16-18 years for their study. The adolescents were asked to rate how they feel about the four types of social stressors as identified by the researchers. The social stressors identified are: developmental transitions, induced transitions, daily hassles and circumscribed events.

Mbamalu (1991) explored the relationship between stress and locus of control among university undergraduates between the ages of 18-30 years. The participants filled a twenty-eight item questionnaire for the measurement of psychosocial and psychophysiological stress symptoms. The data obtained from the study revealed that females reported more stress symptoms than male subjects.

Ugwu (1998) investigated the effects of personal variables on role-based stress and psychological burnout. A total of 423 employees of people helping and non-people helping institutions were administered with questionnaires. Results indicated that male workers, irrespective of type of organisation, reported higher level of stress than their female counterparts.

Some earlier researchers, for example, Langner (1962), have found significant difference between males and females in their stress experience. Males tended to report more stress than females. Ifelunni (1993) found out that male teachers were associated with significant higher role-conflict scores than females. He commented that this was to be expected since teaching is often thought of as women's profession and that women could be more tolerant of the inconsistencies since it is not likely that they could do better elsewhere.

Beehr (1994) is of the opinion that women differ from men in role conflict experience, not just because of sex-stereotyping alone but also because of their responsibilities outside work.

Barnett and Baruch (1985) also support that position that role conflict is significantly associated with women's involvement in multiple roles of being wives, mothers and home makers. Men are less vulnerable to the negative effects of stress arising from family role (Kassle, 1985), not only because they have fewer family roles but because women see it as their responsibility to cope with family problems. It is, however, still uncertain whether the family roles of women exacerbate or act as a buffer against stress and stress related symptoms.

Behind this lies the study by Maslach, Jackson and Leiter (1996) which found that women reported more stress symptoms (burnout) than men but that women have more effective coping strategy than men. However, the relationships between role-

based stress and psychological burnout is not just a one-way affair. Some factors have been shown to moderate the effects of stress.

INDIVIDUAL DIFFERENCES IN VULNERABILITY TO STRESS

One major factor that affects vulnerability to stress on the job is social support, one's network of social and family ties. The person who is alone psychologically or physically (for example, emotionally alienated from others) is more vulnerable to stress than someone who has strong social relationship.

Social support comes from two sources: the job and the family. Support from the family can reduce the effects of job dissatisfaction by providing other satisfactions and accomplishments outside the work situation. Social support on the job also ameliorates the effects of stress. In their separate studies, Bunce (1997); Hackett and Bycio (1996); and Dunseath and Beehr (1991) have explored, in different studies, the effectiveness of social support in ameliorating the potentially harmful effects of work stressors. Results of their finding all point to the fact that social sport moderates stress-outcome relationships.

Other studies had earlier shown that the cohesion of the work group and the degree of liking for one's supervisor correlate highly with reduced stress and better health (Seers, Mcgee, Serey and Graen, 1983). Schultz and Schultz (1986) also identified one's physical condition as relating to one's vulnerability to stress effects. Persons in better physical condition suffer fewer effects of stress than those in poor physical condition.

Personality seems to be related to one's ability to tolerate stress. This is apparent with the so-called type A and type B personalities and their susceptibility to heart disease, one of the major effects of stress. The two primary characteristics of the type A personality are a very high competitive drive and a constant sense of urgency about time. These persons are intensely ambitious and aggressive, always working to achieve something, racing against the clock, rushing from one self-imposed deadline to the next, ever in a hurry. As a result of these characteristics, type A people are always in a state of tension and stress. Even when their work is relatively free of

sources of stress, they bring their own stress with them as a fundamental part of their personality.

Type B people may be just as ambitious as type A people, but they have none of their other characteristics. They function under far less stress in all aspects of life, including work. Thus, these people can work just as hard as type A people, in equally stressful environments, and suffer fewer (or none) of the harmful effects of stress. But one cannot categorically assert that exposure to stress causes A.B.C. disorders in A-B-C- persons. It is also difficult to determine what doses or amounts of stress is capable of causing what amount of disorder or personal disturbances. All that is clear is that exposure to overly high and prolonged levels of stress is capable of affecting the physiology and biochemistry of the body that in turn affects the immune systems, blood pressure flow and cardiovascular rhythms. It also plays a significant role in organic/physical and psychological systems (Nweze, 1994).

The only way therefore, to reduce the hazards of stress on the individual and promote organisational life is to introduce the programme of effective stress control and management as part of management development programme. This is because, it is one thing to become aware of the consequences of stress in our lives and well-being, it is another to develop internal capacities to cope with stress. According to Nweze (1995), the methods of active coping include personal, environmental and organisationally derived strategies and time management.

Balogun (1994) examined the effects of social support on personality dispositions of victims of stressful life events. He found that the victims enjoy a fairly positive social support and consequently experience low depression and general psychopathology, high absenteeism and low alcohol intake.

In one study, Pavett (1986) investigated the relationship between stress, satisfaction, and physical and psychological well-being in a group of people married to individuals in high stress occupation. Results supported the hypothesized positive relationship between stress and psychological strains. Further analysis indicated that type A personality and the use of social support coping mechanisms do not moderate stress-outcome relationships. In a nutshell, stress is determined by the perception of events rather than by the events themselves and the degree of stress depends partly

on the capability of the individual to cope. But quick and Quick (1984) on the other hand, found that marriage helps to sustain one's spouse through stress at work.

Furthermore, Kaufman and Beehr (1982) showed that individuals who discussed their work-related frustration problems with their spouse, perceived less stress and engaged less in drinking as stress coping strategy. Similarly, Larrocco, Jones and French (1980) studied a group of men working in manufacturing factory and found that support from co-workers, supervisors, and family members selectively buffer the effect of work stressors on certain emotional and somatic variable, but did not buffer their effect on work-related strains such as burnout. Waldron (1978), in a large scale study of heart-disease, found that type A personality is less widespread among women than in men. This points to the fact that women would tend to experience less stress symptoms than their female counterparts. Other researchers have shown that certain personality traits may help people to resist the negative effects of stress. Scheier and Carver (1987) propose that people possessing a general disposition to be optimistic are better able to resist the stressful effects of life event than are people with a pessimistic outlook. The reasoning, according to them, is that those who see desired outcomes as attainable continue to expend efforts to attain those outcomes, even when doing so is difficult.

A second study (Scheier & Carver, 1987) examined the benefits optimism can provide patients who are recovering from coronary bypass surgery. On the day immediately preceding surgery, patients were approached about their participation in a study of adaptation to the surgery. Volunteers were administered the LOT and observed during and after the surgery. Results indicated that optimism had a clear beneficial effect. Members of the Cardiac rehabilitation team judged the optimistic patients to have a faster recovery, as indicated by their sitting up in bed and walking around sooner and showing fewer physical signs indicating adverse reaction to the surgery. Optimism was also significantly related to self-reported quality of life six months after surgery. Consequently, some people may be overwhelmed by stressful life events, yet they may not exhibit stress-reaction. This could be as a result of effective coping mechanisms. In addition, the choice of coping strategy is dependant on the stressed individual. For instance, while one person may adopt problem focused coping,

the other may adopt emotional-focused coping. However, whichever approach adopted by the individual under stress is healthier than the maladaptive methods such as drug abuse, excessive smoking, and burnout.

CONSEQUENCES OF DRUG ABUSE

Substances of abuse have some health implications to those who are addicted to them. Generally, it has been proven that chemical substances of abuse affect:

- a) the brain structures at different levels leading to mental illness (psychosis and neurosis);
- b) provide euphoria or calming effects which never last, rather produce a more depressive state with an increased demand for further euphoria state
- c) men and women by altering arousal in men and even reduce the potency of sperm when produced, and by affecting the fertility rate of women and the likelihood of the malformation of a foetus if any is formed.

Drugs that are common in Nigeria, which many people take as coping mechanisms when faced with stressful life events are as follows: Alcohol (palm wine local spirit also called 'ogogoro' or 'push-me-I-push you, Burukutu, pito), cannabis (marijuana or 'Igbo'), Kola-nut, tobacco snuff and cigarette.

Palm-Wine

This is tapped from palm trees and is popularly served at social gathering. When taken, it has some tranquilliser, depressant, hypnotic and sedative effects. Excessive consumption causes confusion, slurred speech and drowsiness, and lack of physical and mental co-ordination.

Local Spirit

This also falls within the alcoholic drink. It is distilled/brewed from palm-wine sugar canes, and anything with sugar base. It is also a depressant. It affects, not only the central nervous system but also on the stomach lining and liver.

Burukutu & Pito.

This is prepared from cereals. They are also depressants and affect the brain by slurring speech. Ujorha (1993) summarized the resultant effects of drug abuse on the abusers. These are as follows:

(1) Indian Hemp

Social Effects

When Indian Hemp is taken continuously and excessively, the person develops a faulty life style, and appears to live in a world of his own. The individual mixes with drug taking groups and may graduate to taking drugs like morphine. He may persistently absent himself from work or studies and as well become less careful and neglects himself and relations.

Economic Effects

The individual abuser may become financially impoverished since he spends most of his money in the purchase of the drug. He may continually, absent himself from work which may lead to termination of his appointment. Because he spends most of his hard earned income in purchasing drugs, he can not meet his social obligations of taking care of his family. Consequently, The family will become relatively deprived, and some of the children may become delinquent.

Psychology Effects

The immediate effects of Indian hemp may bring about state of euphoria. This can make the individual drug abuser to become irritable and aggressive such that the abuser may attack others especially members of his family. A good number of these people develop drug induced psychosis, which necessitates hospital treatment.

Alcohol

Alcohol use is an acceptable activity in all societies where it is not prohibited. When consumed in reasonable quantities and at social occasions is an effective social lubricant and aids in relaxation.

The problem of alcohol consumption arises when it is abused or misused, that is, when it is consumed in a way that is detrimental to health and impairs occupational and social functioning. Many personal and social problems are associated with alcohol abuse

Alcohol affects almost all systems of this body, including nervous, gastrointestinal, circulatory, respiratory, endocrine, and reproductive systems, giving rise to a variety of physical and mental health disorders. In a recent publication by the Royal College physicians (1987), the following disorders have been attributed to alcohol misuse: strokes, psychosis, alcoholic hepatitis, cirrhosis, cancer of the Oesophagus, gastritis, obesity, high blood pressure, loss of reproductive potency and fetal alcohol syndrome (a condition affecting children born to an alcoholic mothers). No wonder then that alcohol misuse has been described as "perhaps the most significant health risk to mankind of the century" (Sartorius, 1984), and "the biggest single drug problem" in black America (Institute on Black Chemical Abuse, 1990).

The problem with alcohol goes beyond damage to the health consumers or their children. Alcohol abuse has social, economic and psychological implications; the effects are felt by members of the alcohol abuser's family and the society at large. The cost to industry as a result of absenteeism, lateness, work-related accidents and decreased inefficiency is tremendous. Data from western countries show that alcohol is involved in 40% of motor vehicle accidents, 10% of all deaths of people under 25 years in Britain, 10-40% of admissions into general hospital (Royal college of Physicians, 1984), 47-70% of homicides, 25-37% of suicides, and 44% of accidental falls. Problem drinkers are over represented among wife and children barterers, traffic offenders, the unemployed and people with broken homes. It is, of course, difficult to determine whether or not alcohol is the cause or effect of some of these problems. The role of alcohol in social problems was recognized as far back as the pre-colonial era when whisky and rum were exchanged for slaves in an infamous barter system (O bot, 1993). Lyn Pan (1975) in her book "alcohol in colonial Africa", quotes a colonial period traditional ruler who lamented that imported alcohol was destroying his people. The danger of excessive drinking to the health and social welfare of present-day Nigerians has been underscored by many researchers and commentators (e.g. Ayeni, 1980; Ifabamuyi and

Ahmed, 1987; Obot, 1989; Odejidi, 1989; Osuntokun, 1987). Alcoholism and other disorders associated with alcohol misuse in western countries are on the increase in Nigeria today. The pattern of health problems is therefore changing to reflect the increasing involvement of alcohol and other drugs in morbidity and mortality. Hypertension, Cardiovascular disease and cancer, which were scarce a few decades ago, are now showing up in large numbers. Accidents are claiming thousands of lives each year inspite of government attempts to check the "Carnage on our roads". Those problems are the result of general changes in society and individual lifestyles but available knowledge implicates alcohol abuse in sizeable proportions.

In the area of mental health, two recent studies in Nigeria have demonstrated the deleterous role of alcohol abuse in psychopathology. The study by the International Council on Alcohol and Addictions (1988) showed that alcohol was second to cannabis in the number of cases admitted for treatment in the hospitals visited. Obot (1993) in survey of patients admitted into four psychiatric hospitals covering a period of five years (1984-1988) came out with a similar finding that alcohol was second to cannabis in the number of cases admitted.

Other minor health problems identified by Cornwell and Cornwell (1993) are:

- a) Intoxication - This usually leads to a sense of well-being and relaxation. This leads to aggressive and irresponsible behaviour.
- b) Amnesia- This is an alcohol- related black outs which may result in the individual's inability to remember recent events, particularly those associated with the drinking episode.
- c) Hangover- Hangover is a complex state containing both physical psychological symptoms. The physical symptoms include loss of appetite, nausea and headache. The psychological symptoms may include feelings of guilt and misery and a resolve (often soon forgotten) to drink more moderately in future.

Kola-nut is a stimulant that contains codeine. For cultural celebrations, Kola-nut is required as a symbol. If plenty of Kola-nuts are chewed, they cause sleeplessness.

Although some of the health related problems are associated with drug abuse, some people still indulge in substance abuse as stress coping mechanism. To compound the problem, the Nigerian depressed economic environments have magnified the growth and development of those factors that precipitate stress in our

environment. In addition, in Nigeria, there is an indiscriminate sale of drugs by druggists or pharmacists, patent medicine dealers and street vendors and hawkers whose stores, to say the least, are manned by unqualified people. Other substances of abuse such as illicit gins, alcohol, and cannabis could be procured at nooks and crannies. In addition, there is no strict control over the production, distribution, and consumption of such substances. Some of these drugs are classified according to their major observable effects. Most drugs fall into one of five general categories: depressants (including sedatives, hypnotic, minor tranquilizers, and major tranquilizers), stimulants, hallucinogens, narcotics, and inhalants.

Depressants are also called sedatives which depress or slow down the central nervous system. On the other hand, stimulants are drugs which excite or increase the activity of the central nervous system, and induce a temporary sense of well-being, self-confidence, and alertness. Hallucinogens are drugs that produce hallucinations (that is, expression of non-existent sensations or distortions of reality). They are also known as psychedelic drugs.

Narcotics are drugs that relieve pain and also induce sleep, and sometimes called Opiates. Inhalants are drugs that enter the body through inhalation.

Below is a table stating the categories of effects of drugs.

	drug categories	physiological effects	Examples
1	Depressants	Depress central nervous system: Act as calming agent and induce sleep	Barbiturates
a	sedative		
	hypnotic		
b	Minor tranquilizers	Relieve tension, reduce anxiety.	Librium valium, diazepam.
C	Major tranquilizers	calm psychotic reactions	chloropromazin
2.	Stimulants	stimulate central nervous system, wakefulness and excitability.	Cocaine, caffeine, nicotine amphetamine
3	Hallucinogens	produce perceptual distortions, after mood and behaviour	LSD, marijuana (Indian Hemp) mescaline
4	Narcotics	Relieve pain, induce sleep, may cause drowsiness, some users experience nausea or itching sensations	morphine, codeine, heroine
5	Inhalants or Diliriant	Unpredictable reactions	Anaesthetic gases, vasodilator, petroleum products, aerosols.

STATEMENT OF PROBLEM

The problem that will be addressed in the present study is, therefore, that of identifying and classifying stressful life-events that are associated with substance abuse in Nigerian sample and that of obtaining data on the incidence of substances of abuse and the predominant sex of the substance abusers.

Specifically, the following questions will be answered:

1. What stressful life-events lead to substance abuse among the abusers and how are they classified in terms of severity?
2. What are the substances that are frequently abused when people are faced with stressful life situations?
3. Do males abuse substances of abuse more than females?

HYPOTHESES

The following hypotheses, in view of the statement of problem above, are postulated.

1. There will be positive relationship between perceived stress and substance abuse.
2. More males than females will indulge in substance abuse when faced with stressful life events.
3. Married people will engage in more frequent substance abuse than their counterparts who are single.
4. Literate urban dwellers will indulge in more substance abuse than the literate rural dwellers.
5. Married people will experience more stress than their counterparts who are not married.

Operational Definition

Drug misuse: When drugs are intentionally or accidentally inappropriately consumed or are administered in improper amounts. For example, taking drugs in excess of recommended dosages or taking drugs without consulting a physician.

Drug abuse: This is the taking of any substance for any purpose other than that for which it is intended, and in any way that could damage the user's health and ability to function.

Tolerance: This is the need to increase dose levels to obtain the same desired effects from a drug.

Cross-tolerance: This is the transfer of tolerance developed for one drug to another drug within the same general category.

Dependence: This is a general term which reflects the need to keep consulting a drug for psychological and physical reasons, or both.

Physical dependence: This is a physiological state of adaptation to a drug, that is, a state of periodic and chronic intoxication produced by a repeated consumption of a drug. This is also called drug addiction.

Psychological Dependence: This is a state in which the drug user feels compelled to continue the use of drug in order to maintain the state of well-being the drug has always produced.

Withdrawal Syndrome: This is a temporary physical illness that occurs when someone who is physically dependent on a drug either no longer receives it at all or receives much less than the amount to which the body has become tolerant.

CHAPTER THREE

METHODOLOGY

Participants

Two categories of adults participated in the study. The first category comprised 116 literate adults of both sexes drawn from the rural areas. These were primary school teachers whose minimum qualification was grade II teacher training certificate. Out of 116 rural literates sampled for this study, 98 teachers have obtained their B.ED (Bachelor of Education) through sandwich programme which was in-service training programme designed by Nigerian Universities in order to improve the academic level of the serving staff. This represents 84.48%. Ten out of the remaining number have their Nigerian certificate in Education (N.C.E). This represents 8.92%. The remaining eight (8) participants have no additional qualification apart from the T.C. II. Certificate.

Another category of 120 literate adults of both sexes were drawn from the urban areas. Of this number, 114 had obtained B.ED through sandwich programme, representing 95%. The remaining 6 participants have received N.C.E. certificate representing 5%. None of the participants sampled in the urban areas had not obtained additional qualification.

A total of 236 participants were used in this study. Out of this number, 198 of them were females while the remaining 38 were males. Of the 198 female staff, 103 of them are married while the remaining 95 females are not married. Amongst the male teachers, out of 38 male teachers, 33 of them are married while the remaining five (5) are not married. This brings it to a total of 136 married teachers who participated in the study. The other remaining 100 teachers are not married. Their age bracket range between 23 years to 55 years. The subjects used in main study were different from the subjects that participated in the pilot study.

MEASURES

Two instruments were used in this study:

- (i) Stressful life-events questionnaire and
- (ii) Substance abuse questionnaire.

The instrument used to measure stressful life events was a 20-item questionnaire developed by the researcher, designed to measure the degree of stressful life events experienced by literate adults in rural and urban areas. All items represent statements to which the subjects respond on 4-point Likert Scales, ranging from "very severe" to "Never"

For the purposes of quantitative analyses, these question items were scored as follows:

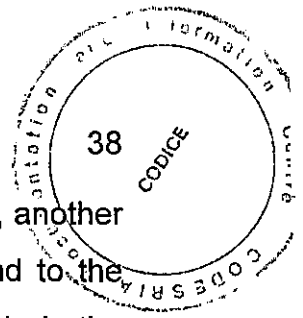
"very severe" 4; "severe" 3; "moderately severe" 2;" and "Never" 1.

The second instrument the researcher used in this study was the 15-item substance abuse questionnaire which was designed to measure the individuals frequency of use of substances when confronted with stressful life events. All items represent statements to which the subjects respond on a 4-point scale ranging from "Never" to "always". Similarly, "Never" was score 1, "Rarely" 2; "sometimes" 3 and "always" 4. A measure of overall level of stressful life went encountered by an individual was derived by taking the mean score across all items. The same was applicable in determining the subjects level of involvement with substances of abuse when confronted with stressful life-events. The higher the total score on either the stressful life-events scale or the substance abuse scale, the higher the measured stress and the level of involvement in substance abuse, respectively.

RELIABILITY AND VALIDITY OF THE TWO INSTRUMENTS

The researcher carried out a pilot study by asking literate adults from the rural and urban areas to freely make a list of stressful life-events that lead people to abuse some substances such as drugs, snuffs, alcohol, cannabis, and the like. The same group of adults were required to make a list of substances that they take when confronted with stressful life-events.

From there, 20 items indicative of stressful life events were identified. These then appeared in questionnaire form. By the same token, 15 question items were obtained from the 15 substances of abuse identified by the literate adults of both sexes drawn from rural and urban areas.



In other to validate the instrument (stressful life events questionnaire), another group of literate adults from rural and urban areas were asked to respond to the questionnaire in four point Likert Scale ranging from 'very severe' to 'Never'. In the substance of abuse questionnaire, the respondents were requested to respond in a four point scale ranging from 'never taken any drug' to 'I have always taken drugs'.

Statistical analyses of the pilot study responses for the stressful life-events questionnaire yielded a split-half reliability coefficient of 0.45 and a corrected (spearman-Brown) split-half reliability co-efficient 0.62.

Further analyses of the pilot study responses yielded an internal consistency reliability coefficient (coefficient alpha) of 0.75.

The instrument is composed of 20-item questions of which the computation of the internal consistency reliability of the instrument will enable the researcher know whether all the items in the stressful life-events questionnaire tell us the same story regarding employee level of perceived stressful life-events

In the same vein, substance abuse questionnaire was validated using the same group of adults. Statistical analyses showed a reliability coefficient of 0.55 and corrected split-half reliability of 0.68.

Further statistical analyses of the pilot study responses also yielded an internal consistency reliability coefficient (coefficient alpha) of 0.65.

The researcher skilfully avoided the subjects who participated in the pilot study so that they will not participate in the main study.

PROCEDURE

The researcher visited, in all, 24 primary schools where questionnaires were distributed to the primary school teachers. In the rural areas, 14 primary schools were visited. A total of 150 copies of questionnaire were distributed to the teachers in primary schools located in urban areas. Out of this number, 126 copies of the questionnaire were completed and returned. This represented a percentage return of 84%. Of this number, six copies (4.76%) were discarded as a result of improper and/or very incomplete responses, leaving 120 (95.24%) properly filled copies of questionnaires.

In the rural areas, the same number of questionnaires (150 copies) were distribute to the primary school teachers. Out of this number, 131 copies of the questionnaire were completed and returned. This represented a percentage return of 87.33%. Of this number 15 copies were discarded as a result of improper/ incomplete filling of the questionnaires. This represented 11.47%, leaving 116 copies (88.53%) properly filled questionnaires.

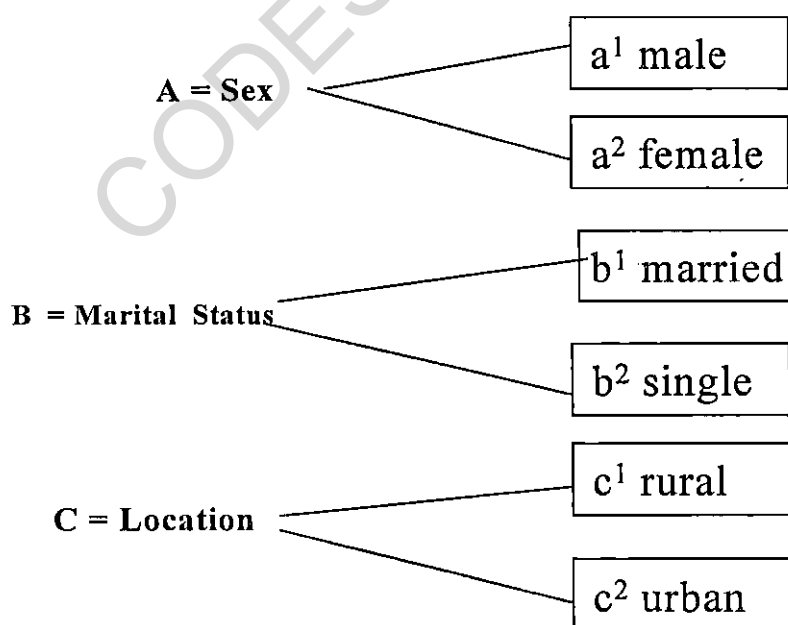
DESIGN/STATISTICS

The study was carried out by means of a field study. The independent variables in this study are marital status, sex and location (rural Vs urban) while the dependent measures are the stressful life-events and substances of abuse.

A Person-r product moment correlation was used to establish a relationship between felt stressful life-events and the level of substance abuse.

A 2 x 2 x 2 sex by marital status by location factorial design was also utilized to analyze responses of the sample used in this study. Each of the independent variables in this study has two levels.

For instance:



The F -test analyses were utilized because the data were parametric discrete data. In addition, the sample was drawn from a normal population and consequently met the assumption of normality. Hence the justification for the use of an inferential statistical test of significance.

CODESRIA - LIBRARY

CHAPTER FOUR

RESULTS

This chapter is concerned with the presentation and analysis of data from the investigation of the study.

Table I: Correlation coefficients of stressful life events scores (ST) and substance abuse scores (SUB)

Stress Scores	Substance Score	Number of Cases
1.00	0.66	236
0.66	1.00	236

Calculated person $r = 0.66$, $df = 235$, $P < 0.05$. Table one above shows a significant positive relationship between felt stress and the degree of substance abuse. This result tends to support the first hypothesis which assumes that there would be a significant relationship between felt stress and the degree of substance in take. This finding tends to imply that, with regard to the population studied, drug abuse increases with increasing level of felt stress.

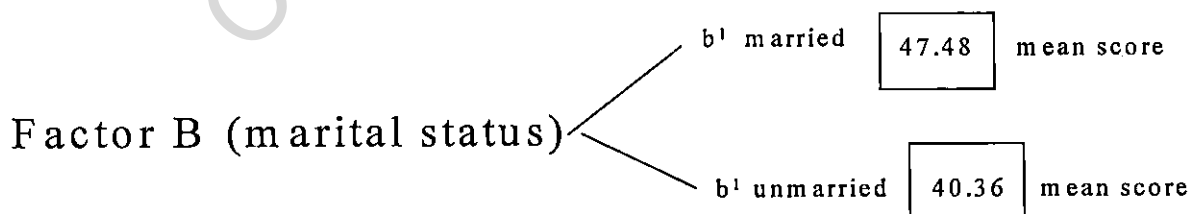
Further analysis using Anova (see the table II below) indicate the following results.

Table II: Analysis of variance for unequal sample sizes on stress

Variables	Source of Variance	Sums of Squares	Degree of Freedom	Mean Square	F
Sex	A	28.67	1	23.67	3.20
Marital Status	B	49.56	1	49.56	5.70
Location	C	25.06	1	25.06	2.88
	A x B	21.15	1	21.15	2.43
	A X C	30.34	1	30.34	3.49
	B X C	25.00	1	25.00	2.88
	A x B x C	15.59	1	15.59	1.79
	S/ABC	1980.63	228	8.69	
	SST	2176	235		

* $P < 0.05$

As shown in table II, an analysis of variance of stress showed that marital status was found to be significant. Specifically, this finding supports the fifth hypothesis that there would be a significant difference between married and the unmarried in reported felt stress $F.(1,228) = 5.70, P < 0.05$. Gender and location were not found to influence individual perceived stress. Since one cannot easily say, looking at the table, whether married or unmarried respondents reported more felt stress one needs to examine the mean scores of the respondents in factor B.



A cursory look at two levels of factor B (b^1 and b^2) indicate that respondents who are married reported that they experience more stress than their counterparts who are unmarried. Among the married respondents, married females reported more stress than the married male respondents. No significant difference was found between urban

and rural dwellers on measures of stress. Consequently, the fourth and hypothesis was rejected. By the same token, sex was found not to be a significant predictor of perceived stress.

Table III: Analysis of variance summary table for unequal sample size on substance abuse

	Source of variance	Sums of Square	DF	Mean Square	F
Gender	A	1102.63	1	110.63	22.64
Marital status	B	1122.31	1	1122.31	23.04
Location	C	109.80	1	109.80	2.25
	A x B	112.32	1	112.32	2.30
	A x C	133.32	1	133.32	2.74
	B x C	110.50	1	110.50	2.27
	A x B x C	111.10	1	111.10	2.28
	$\frac{s}{ABC}$	11105.02	228	48.70	
	SST.	13907	235		

$P < 0.01$

As indicated in table III, gender and marital status were found to be significant. This tends to imply that gender and marital status are related to substance abuse. A look at the mean scores of the respondents on substances use reveals that males reported more substances intake when faced with stressful life events than females. This finding supports the second hypothesis which states that more males than females will engage in substance abuse when faced with stressful life situations. The third hypothesis which states that married people will engage in more frequent substance abuse when confronted with stress than their counterparts who are unmarried irrespective of sex and location, was also supported, $F(1,228) = 23.04$; $P < 0.01$. Married people showed higher mean score on substance abuse than the unmarried ones.

On the other hand, no significant difference was found between urban and rural dwellers on measures of substance abuse. This then tends to reject the hypothesis

which posits that literate urban dwellers will indulge in more substance abuse than the literate rural dwellers.

SUMMARY OF MAJOR FINDINGS

In this sub-section, a presentation of the major findings of the study is made. The presentation was guided by the major research questions explored and the hypotheses tested. Highlights of the findings are as follows:

- 1) There was a positive relationship between felt stress and the degree of substance abuse ($r=0.66, P<0.05$).
- 2) Fifteen substances of abuse were identified as substances used in coping with stressful life events. This range from simple drugs, such as kolanut, cigarettes, to hard drugs such as cannabis, amphetamines, and sniff gasses.
- 3) Married people reported more stress than the unmarried people, irrespective of sex and location, $F(1,228) = 5.70, P<0.05$.
- 4) The stressful life events identified by the respondents as the possible causes of substance abuse were 20 items. Most of these 20-items stressful life events centred on home demands, financial inadequacy, children's misbehaviour,
- 5) Males reported more frequency of substance abuse when faced with stressful life events than their female counterparts, irrespective of location and marital status ($P<0.01$)
- 6) Married people also reported more frequency of drug use as a means of coping with stress than their counterparts who are single ($P<0.01$).

CHAPTER FIVE

DISCUSSION OF RESULTS

In this chapter, the results of the study based on the data analysis made in chapter four are examined, interpreted and inferences drawn from them. The discussion deals with the research questions posed and hypotheses postulated to direct the study. To make for a better inference, the results of the present study are compared with those of previous researchers to highlight their relationships. The chapter starts with a discussion and interpretations of findings of the study and ends with areas for further research.

Discussions and Interpretations of Findings

In the discussion and interpretations of the research findings, the approach adopted is to discuss the research questions vis-a-vis the result of the individual independent variables in the hypotheses as discussing them separately would amount to unnecessary repetitions. More specifically, the discussion is organized using the following headings:

- Stressful life events as identified by the respondents
- Substances of abuse as identified by the respondents
- Relationship between substance abuse and stressful life-events
- Males versus females and the degree of substance abuse.
- Married versus unmarried and the degree of substance abuse.
- Urban and rural dwellers and the degree of substance abuse.
- Married people versus unmarried and the degree of stress experience.

Stressful Life-Events as Identified by the Respondents

Research question No.1 sought to identify those stressful life-events that could lead people to indulge in substance abuse as a coping strategy. The response to this question is summarised in appendix A. All in all, 20 stressful life-events were identified which range from death of loved ones through financial hardship to unconducive home

environments. These twenty-item stressful life-events were then incorporated in the questionnaire which was used in the main study. Many of the stressful life-events identified contained items on financial hardship which portrays the role of the present economic crunch on substance intake in Nigeria.

Although stress is known to be pervasive, cutting across all segments of any population, the impact is more felt in Nigeria because of the present economic policies and the ever increasing inflationary trend being experienced in Nigeria today. This has increased the 'normal' stress experienced in our environment. Because of the high level of stress prevalent in Nigerian environment today, the respondents in the fullness of time offered many instances of stressful life-events and were not constrained by considerations of repetition.

Substances of Abuse as Identified by the Respondents

The focus of research question 2 is the investigation of the types of substances that people take when they are faced with stressful life-events. The result of this investigation shows that 15 substances of abuse were identified by the respondents. Four classification of these drug was made by the researcher. They are

- 1) Alcohol (beer, Palmwine, dry gin, whisky)
- 2) Stimulants (kolanuts, Coffee, amphetamines, cigarettes, cocaine, cannabis).
- 3) Depressants (Heroin, sleeping pills, Barbiturates, opium).
- 4) Inhalants (sniff gases/fumes, glue sniffing). But more commonly used drugs of them all is alcohol. Davis (1990) reported that individuals always show a subjective anticipation of alcohol's effectiveness in dealing with stress. In line with this report, most of the respondents listed alcohol as number one drug which they use to "cool off" when tensed up. Under further investigation with the respondents, the researcher gathered that they (the respondents) believe that alcohol relieves tension and anxiety; produces emotional dis-inhibition that may boost one's confidence and may result in relaxation. However, use of alcohol in the management of stress has certain drawbacks. First, it is a passive coping technique that is purely defensive in nature and as such fails to deal realistically with the stressful condition. Second, it may produce a rebound effect, that is, it

may make one more distressed or tearful than before embarking on the drinking stress. Finally, there is documented evidence of health hazards posed by alcohol, some of which include dehydration (Healy, 1993), coma, staggering, slurred speech, double vision, physical addiction as well as destroying careers, lives and families (Obot, 1993).

About 80% of the respondents also identified kolanuts, tobacco snuff, and cigarette smoking as substances which they take as stress coping strategy. But this result should be interpreted with caution since substance use is tied with the life of the people. For instance, in Nigeria, hospitality is often demonstrated in concrete terms, by host(s) to the guest(s) after exchange of pleasantries by the presentation of one or a combination of the following: kola nuts, tobacco snuff/cigarette, and alcoholic drinks such as illicit gins or palm wine. Even the presentation of the bride to the bridegroom in all the stages is demonstrated with the lavish presentation and consumption of such substances as kolanuts, tobacco snuff/cigarette, and alcoholic drinks of all kinds.

Relationship Between Substance Abuse and Stressful Life-Events

From the results, the first hypothesis which states that there would be a significant relationship between stress and substance abuse was accepted ($r=0.66$, $P<0.05$). This result tends to corroborate the findings of Robertson (1992); Obot (1993); Alman, Taylor and Nathan (1972); Begley (1998), and Drew (1988) that some substances of abuse are taken, most of the time, as means of coping with stress. According to Davis (1990), this is because people always show a subjective anticipation of the effectiveness of such substances in alleviating stress-related problems. From the finding, it appears that the higher the stress, the more the frequency of substance use. The probable reason why people who are under stress tend to use one or a combination of substances of abuse as stress coping strategy could be because they believe that such substances help to relieve tension and anxiety and produce emotional dis-inhibition.

This then may explain why people who have some symptoms of stress, like feeling anxious, worked up or burdened with daily hassles resort to the use of alcohol as a coping strategy. In line with this subjective anticipation of relief is the report by

Priest (1988) that alcohol - one of the substances taken most frequently - relieves tension and anxiety, produces emotional dis-inhibition that may boost one's confidence and may result in relaxation. That may imply that some of these substances have axiolytic properties which means that when taken, give clients a relaxing warm glow.

However, the result contradicts the research findings of Doweiko(1990), Goldstein (1975), Ibanga and Zwandor (1993) that forces in the individual's interpersonal environment bring about or support substance use. They further concluded that substance abuse, among other factors, is influenced by the culture of the people. Katrick (1993), in support of that view, maintained that drug use behaviour is a learned responses to highly emotional states of an individual or highly, charged setting or sometimes as a means of entertaining visitors or strangers.

Apart from cultural practices, other psycho-social factors have been identified by earlier researchers as the major determinants of substance abuse. They include family pressure (Oluwatelure, 1993), peer influence (Ajila, 1992), and religious. affiliations (Ikuesan, 1994). But the researcher contends that since stress is very pervasive affecting the family, the religious, children and even the pious, then stress may be the underline causes of substance abuse in all segment of the society.

Males Verses Females and the Degree of Substance Abuse

The result of this study showed that males indulge in more substance abuse than females ($P < 0.01$). This result supports the second hypothesis which assumes that more males than females will indulge in substance abuse when faced with stressful situations, irrespective of location. This result supports the earlier findings of Madianos, Gefon Madianou, Richardson and Stefanis (1995), Brower and Angelin (1987), Berkowitz, Allan and perkins (1987), Betson (1997), and lfeawazi (1997) that more males than females indulge in substance abuse to forget their problems.

A possible interpretation of this finding is that in Nigeria, men are bestowed with the responsibilities of providing for the family. When they fail in this responsibility or the fear of failure in providing for their family may be the source of stress. And because men are less open to discuss their problems than females, they may resort to non-adaptive coping mechanism such as substance abuse.

In addition, the perception that men are stronger than women may lead them (men) to show greater involvement in the work. To this effect, men are more wrapped up in their self-worth. This may lead them to overwork themselves and consequently experience stress.

Furthermore, there is less social pressure on females to drink and there are few situations in which they are expected to drink. Secondly, women do not demonstrate their femininity by indulging in drug use unlike males who demonstrate their masculinity by indulging in drug use.

On the other hand, gender differences may not have existed as the result of this present study indicated because culture in Nigeria inhibits females from taking some substances such as alcohol, tobacco snuff, and cigarette smoking. Therefore, it will be difficult to obtain objective information from women on the degree of their substance usage. To buttress this point is the report by Oyefeso, Ewhrudjakpor and Osinowo (1990) that the dearth of information on females' substance use and abuse could be attributed to our cultural practices which view with seriousness female involvement in substances usage. Perhaps, it is this varied cultural sex-role expectation for males and females that bring about the reported differences in substance use between men and women.

Married Versus Unmarried and the Degree of Substance Abuse

The third hypothesis which assumes that married people will engage in more substance abuse than their counterparts who are unmarried irrespective of location and sex, was accepted. ($P < 0.01$). Married people engaged in drug use more frequently than their unmarried counterparts, with respect to the population studied. This finding tended to support earlier findings by Carlson and Davis (1988), Olademoji and Fabiyi (1993), and Ikweasan (1994) who noted that marriage and parenthood are linked with increased role-conflict and overload.

One possible explanation of this is that change in role complexity from the state of being single, to married/cohabiting to parenthood may be seen as increasing stress in terms of the impact on the home/work boundary. This increasing stress arising from

their dual roles of married couple could lead them into adopting substance abuse as means of coping with stress.

In addition, the extended family system practised in Nigeria places high responsibilities on the married people who may have to feed strings of mouths of dependent relatives. When they fail to meet their socially assigned responsibilities, they may feel depressed and consequently indulge in substance usage as way of coping with the situation.

Another possible factor that could explain the finding that married people indulge in more frequent substance use may lie in the demand placed by marriage on individuals. Glaser (1993), for instances, found that marriage can be one of life's biggest sources of stress. This may be the case in this study since the researcher did not control for possible marital problems among the married respondents. Furthermore, the present economic condition, in Nigeria, has made it possible for most people, especially the married couples to engage in multiple roles in a bid to make ends meet. To reduce tension arising from these multiple roles, they may engage in substance use as way of palliating stress.

Urban and Rural Dwellers and the Degree of Substance Abuse

The fourth hypothesis which states that literate urban dwellers would indulge in more substance abuse than the literate rural dwellers when faced with stressful situations was rejected ($P > 0.05$). Results showed no significant mean difference between urban and rural dwellers on the frequency of drug use. This tends to imply that, with regard to the population studied, rural as well as urban dwellers expressed 'the same' level of drug use. This finding could be explained by the fact that hospitality in Nigeria is often demonstrated in concrete terms, by the host(s) to the guest(s) after exchange of pleasantries, by the presentation of one or a combination of following: Kolanuts, tobacco snuff/cigarette, and alcoholic drinks such as illicit gin or palmwine. Even the presentation of a bride to a bridegroom in all stages is demonstrated with the lavish presentation and consumption of such substances. Consequently, substance use becomes a common feature in Nigeria, irrespective of location, since some substances are tied with the life style of the people. Perhaps, this explains the finding

that no difference exists between rural and urban dwellers in the degree of their substance usage.

IMPLICATIONS OF THE FINDINGS

This subsection deals with the implications of the study based on the findings. Specifically, the following deductions or implications are made which can benefit policy makers as well as the society at large.

This study demonstrated that literate urban and rural dwellers who reported high stress also reported high frequency of drug use. This indicates that stress level is a factor in drug use, irrespective of location and gender. The implication of this is that if government intends to control the extent of drug abuse, emphasis should be on reducing the level of stress in our environment since stress is a viable predictor of substance abuse.

This is necessary since unrestricted and excessive consumption of these drugs has immense consequences on the health of the consumers. For instance, alcohol affects almost all systems of the body, including nervous, gastrointestinal, circulatory, respiratory, endocrine, and reproductive systems, giving rise to a variety of physical and mental health disorders.

Regarding gender differences on substance abuse, it becomes clear, with respect to the population studied, that men engage in more frequency of drug use than their female counterparts. The implication of this finding is that men should be taught how to 'talk out their problems' instead of adopting the non-adaptive ways of tackling their problems. The findings further reveal that married people indulge in more substance abuse than the unmarried people. This indicates that marital status is a mediating factor in drug use. This finding has practical implication to both the organizers of family support programme particular and the federal government in general. One implication of this is that conflicting roles - that of the home life and that of providing for the family - tend to increase stress and burnout which are the precursors of substance abuse. This situation compounds the problem of the married couples more because substance abuse can lead to major financial problems at family level. This can cause a reduction in standard of living and may drag the economy

downhill further. In addition, the significant reduction of living standard has all chances of compounding insalubrity, malnutrition, a cause for weakening of resistance to illnesses.

LIMITATIONS OF THE STUDY

The study was constrained by a number of problems. They are:

1. The focus of exploration of the study were only on stressful life events to the exclusion of other stress-related issues such as role-based stress. It is the hope of this researcher that investigation into other areas such as marital discord may or may not confirm the findings of this study.
2. Most of the respondents were literate adults from rural and urban settings to the total exclusion of illiterate segment of the population. This area should be investigated further to identify the ways illiterate adults cope with stress in their environment.
3. The research was conducted in Nsukka senatorial zone of Enugu state. These are people with similar cultural background which does not give the researcher enough scope to generalize the findings of this study to the entire Nigerian population.

It is the opinion of this researcher that investigation in other states of the federation with differing cultural backgrounds should be conducted.

RECOMMENDATIONS FOR FURTHER RESEARCH

This study gathered baseline data concerning the role of stress on substance abuse. Although the findings do suggest that certain relationships exist between stress and substance abuse, it is clear that further research possibilities include:

1. Replications of this research to corroborate these findings and to identify new possible significant predictors of substance abuse.
2. Longitudinal research to monitor changes in the frequency of substance abuse in response to the individual's perceived stress.
3. Inclusion of other personality variables to know the role they play in mediating stress perception and frequency of substance use.

4. Inclusion of illiterate adults from urban and rural settings to identify their own mode of coping with stress.
5. Separating such substances that are used for the demonstration of hospitality to visitors so that culture will not compound the results of the findings.

CODESRIA - LIBRARY

CHAPTER SIX

SUMMARY AND CONCLUSION

Following inconclusive research on the relationship between stress and substance abuse, on one hand, and lack of research evidence on the comparative study between literate rural and urban dwellers, on the other hand, this study chose to compare the frequency of substance abuse as stress coping strategy between literate rural and urban dwellers.

In the study, a total of 236 literate rural and urban adults of both sexes were administered with 20-item stressful life-event questionnaire which was designed to measure the degree of stressful life events experienced by literate adults in rural and urban settings.

A second questionnaire (15-item substances of abuse questionnaire) was administered to the same group of participants. The responses to the two questionnaires were analyzed using the Pearson r and Analysis of variance for unequal sample sizes (ANOVA). Highlights of the findings are as follows:

- 1) There was significant positive relationship between stress and frequency of substance use.
- 2) More males than females indulged in substance abuse as a stress coping strategy.
- 3) Married people reported higher frequency of substance use than their counterparts who are unmarried.
- 4) There was no significant difference between urban and rural dwellers on the frequency of drug use.

REFERENCES

- Abiodun, O.A., Adelekan, M.L., Ogunremi, O.O., Oni, G.A., & Obayan, A.O. (1994). Pattern of substance use amongst secondary school students in Ilorin, Northern Nigeria. *West African Journal of Medicine*, 13(2), 91-97.
- Abosede, O.A., & Edoho, E.J. (1993). Drugs mothers prescribe for newborn babies. In I.S. Obot (Ed.), *Epidemiology and Control of Substance abuse in Nigeria* (pp. 128-134). Jos: Centre for Research and Information on Substance Abuse (CRISA).
- Adelekan, M.L., Abiodun, O.A., Imouorchome-Obayan, A.O., & Oni, G.A. (1993). Psychosocial Correlates of Alcohol, Tobacco and Cannabis use: Findings from a Nigerian University. *Drug & Alcohol Dependence*, 33(3), 247-256.
- Alman, L.R., Taylor, A. & Nathan, P.E. (1972). Group Drinking During Stress: Effects on Drinking Behaviour; Affect and Psychopathology. *American Journal of Psychology*, 129, 669-678.
- Ayanniya, A.B. (1991). Effects of Drugs on Health and Performance of Athletes. *Journal of Education Media and Technology*, 3(1), 205-217.
- Baer, P.E., & Mclaughlin, R.J. (1987). Stress, Coping, Family Conflict and Adolescent Alcohol Use. *Journal of Behavioural Medicine*, 10(5), 449-466.
- Bailey, S. (1992). Adolescents' Multiple Substance Use Patterns: The Role of Alcohol and Cigarette Use. *American Journal of Public Health*, 82, 115-119.
- Balogun, K.S. (1994). The Buffering Effects of Social Support on Personality Dispositions of Victims of Successful Life-Events: The case of V.V.F. Victims. *Ife Psychologia*, 2, 136-151.
- Barnett, R.C. & Baruch, G.K. (1985). Women Involvement in Multiple roles and psychological distress. *Journal of Personality and Social Psychology* 49, 135-145.
- Beer, T.A. (1994). *Psychological Stress in the Workplace*. London: Routledge.
- Begley, T.M. (1998). Coping Strategies as Predictors of Employee Distress and Turnover After an Organizational Consolidation: A longitudinal Analysis. *Journal of Occupational and Organizational Psychology*, 71, 305-329.
- Berkowitz, A., Allan, D., & Perkins, H.S. (1987). Recent Research on Gender Differences in Collegiate Alcohol Use. *Journal of American College Health*, 36, 123-129.

- Blau, C.J. (1987). "Using a Person-Environment Fit Model to Predict Job Involvement and Organizational Commitment. *Journal of Vocational Behaviour*, 30, 227-257.
- Blum, E.M. (1966). Psychoanalytic Views of Alcoholism. *Quarterly Journal of Studies on Alcohol*, 27, 209-211.
- Brower, K.J. & Angelin, M.D. (1987). Adolescent Cocain Use: Epidemiology, Risk Factors and Prevention. *Drug Education*, 17, 163-180.
- Bunce, D. (1997). What Factors are Associated with Outcome of Individual Focused works site Stress Management and Intervention. *Journal of Occupational and Organizational Psychology*, 70, 1-17.
- Carjo, K., Hogland, B. & Smedby, B. (1988). Psychotropic Drug use in a Swedish Community-Patterns of Individual use During Two Years. *Social Science medicine*, 27, 263-267.
- Carlson, B.R. & Davis, J.L. (1988). Demographic Variables and Recreational Substance use Among College Students. *Journal of Drug Education*, 18, 71-79.
- Carroll, C.R. (1989). *Drugs in Modern Society*. Dubugue: Brown.
- Cohen, S. & Wills, T.A. (1985). "Stress, Social Support and the Buffering Hypothesis" *Psychological Bulletin*, 98, 310-357.
- Conger, J.J. (1956). Alcoholism, Theory, Problem and Challenge II: Reinforcement Theory and Dynamics of Alcoholism. *Quarterly Journal of Studies in Alcohol*, 17, 296-305.
- Cornwell, A. & Cornwell, V. (1993). *Drugs Alcohol and Mental Health*. New York: Cambridge University Press.
- Crider, A.B., Goethals G.R., Kavanaugh, R.D., Solomon, P.R. (1983). *Psychology*. New Jersey. Scott, Foresman & Company.
- Davis, R. (1990). Alcohol and Stress Management. In R.I. Shader (Ed.), *Manual of Psychiatric Therapies*. Boston: Little Brown Company.
- Dobson, C. (1980). Sources of Sixth form Stress. *Journal of Adolescence*, 3, 65-75.
- Doweiko, H. (1990). *Concepts of Chemical Dependency*. California: Brooks/Cole Publishing Company.
- Drew, L.I. (1988). Acculturation Stress and Alcohol Usage Among Canadian Indians in Toronto. *Canadian Journal of Public Health*, 79, 115-118.

- Dunseath, J.L. & Bechr, T.A. (1991). "The Job Stress-Social Support Buffering Hypothesis, Employee Gender, and Collar Colour. *Paper Presented at the Annual Meeting of the Midwestern Psychological Association, Chicago.*
- Ebie, J.C. & Tongue, E. (1988). *Report of a Research Project on Substance Abuse in Some Urban and Rural Areas of Nigeria.* Research Monograph. Lausanne, Switzerland: ICOAA.
- Ekstrand, B. (1985). *Psychology: Its Principles and Meaning* USA: CBS College Publishing Company.
- Ellis, A., MCLnerney, J.F. Di Giuseppe R. & Earger, R. (1988). *Rational Emotive Therapy with Alcoholics and Substance Abusers.* New York: Pergamon.
- French, J.P. & Caplan, R.D. (1973). Organizational and Individual Strain. In A.J. Marrow (ed.). *The Failure of Success.* New York: Amacom.
- Garwin, F. (1989). Cocaine Dependence. *Annual Review of Medicine*, 39, Palo Alto, CA: Annual Review.
- Glaser, K. (1993). Gender and Stress: Men and Women Affected by Stress, but Differently. *American Association Monitor*, 24, 8.
- Gold S. (1980). The CAP Control Theory of Drug Abuse. *Theories on Drug Abuse.* Washington: NIDA.
- Goldstein, H. and Goldstein, J. (1975). The Concept of Deviance Revisited. *Canada's Mental Health*, 23, 10-14.
- Hackett, R.D. & Bycio, P. (1996). Employee Absenteeism as a Coping Mechanism Among Hospital Nurses. *Journal of Occupational and Organizational Psychology*, 69, 327-338.
- Goodwin, F.K. (1985). Alcohol, Drug Abuse and Mental Health Administration. *Journal of the American Medical Association*, 261, 3517-3520.
- Healy, D. (1993). *Psychiatric Drugs Explained.* London: Mosby.
- Holmes, S.T., & Holmes, R.H. (1970). Short Term Intrusion into Life Style Routine. *Journal of Psychosomatic Research*, 14, 121-132.
- Ifabumuyi, O.I. (1987). Alcohol and Drug Addiction in Northern Nigeria. *Acta Psychiatrica Scandinavica*, 73, 479-480.

- Ifeagwazi, M.C. (1997). Sex Differences in Brand Preference and Amount of Alcohol Consumption by University of Nigeria Undergraduates. *Health and Movement Education Journal*, 1, 53-61.
- Ifelunni, S.I. (1992). *Personal Attributes as Predictors of Job-Related Stress and Burnout Among Secondary School Counsellors in Nigeria*. Unpublished Ph.D. Thesis - UNN.
- Ihezue, U.H. (1988). Alcohol and Drug Taking Among Medical Students at a Nigerian University II. *Journal of the National Medical Association*, 80, 191-195.
- Ikuesan, B.A. (1994). Drinking Problems and the Position of Women in Nigeria. *Addiction*, 89,941-944.
- Joe, A. (1985). Stress Among a Group of Undergraduate Teachers' Trainees. In E. Okpara (ed.), *Psychological Strategies for National Development*.
- Johnson, J.H. (1986). *Life Event as Stressors in Childhood and Adolescence*. California: Sage Publishers.
- Jellinek, E.M. (1960). *The Disease Concept of Alcoholism*. New Heaven: College and University Press.
- Kasle, S. (1978). Epidemiological Contributions to the Study of Work Stress. In C.L. Cooper and R. Payne (Eds.) *Stress at Work*. Chichester: John Wiley.
- Katrick, H. (1993). The Family Environment and Personality Characteristics of Children of Problem Drinkers In I.S. Obot (Ed.), *Epidemiology and Control of Substance Abuse in Nigeria*. Jos: CRISA.
- Kaufman, G.M. & Bechr, T.A. (1989). "Occupational Stressors, Individual Strains, and Social Supports Among Police Officers". *Human Relations*, 42, 185-197.
- Kyriacou, C. & Sutcliffe, J. (1978). Teacher Stress: Prevalence, Sources and Symptoms. *British Journal of Educational Psychology*, 48, 159-167.
- Langner, T.S. (1962). A Twenty-Item Screening Score of Psychosomatic Symptoms Indicating Impairment. *Journal of Health and Behaviour*, 3, 269-276.
- Larocco, W.W., Jones, W.H. & French, R.P. (1980). Social Support, Occupational Stress and Health. *Journal of Health and Social Behaviour*, 21, 202-218.
- Lazarus, R.S. (1969). *Psychological Stress and the Coping Process*. New York: McGraw Hill.

- Lazarus, R.S. & Folkman, S. (1987). *Stress, Appraisal and Coping*. New York: Springer.
- Madianos, M.G., Geofon-Madianou, D. Richardson, S. & Stefanis, C. (1995). Factors Affecting Illicit Drug Use Among Adolescent and Young Adults in Greece. *Acta Psychiatrica Scaninavica*, 91, 258-264.
- Maslach, C. Jackson, S.E. & Leiter (1996). *Maslach Burnout Inventory: Manual*. Palo Alto, CA: Consulting Psychological Press.
- Mbamalu, T. (1991). *Stress and Locus of Control Among University of Nigeria Undergraduates*. Unpublished B.Sc. Thesis, UNN.
- Mbosowo, D.E. (1988). Drug Use and Abuse Among University Students. *Nigerian Journal of Basic Applied Psychology*, 1, 29-35.
- McGrath, J.E. (1976). Stress and Behaviour in Organizations. In M.D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology*. Chicago: rand McNally.
- Medina, E.L. & Kaempffer, A.M. (1991). Health Damage Caused by the Smoking Habit in Chile. *Bulletin of PAN. American Health Organisation*, 25, 248-257.
- Meyer, R.E. (1987). "Who can say no to Illicit Drug Use?" *Archives of General Psychiatry*, 46, 189-190.
- Mejta, C. Van Bershot, S. & Vermilion, M. (1981). Female Substance Abusers: Need for Research. *Psychological Research*, 48, 625-635.
- Nathan, J.E. (1980). *Etiology and Process in the Addictive Behaviours*. New York: Peramon Press.
- Nwabuzo, (1991). *Drug and Alcohol Abuse Among Youth in Nigeria: Health Implications*. Ibadan: Sisters of St. Louis.
- Nweze, A. (1984). Executive Stress and its Management. In V.A. Aniagoh and P.N. Ejiofor (Eds.). *The Nigerian Manger: Challenges and Opportunities*. Ibadan: Longmans.
- Nweze, A. (1995). Stress in the Executive. In B.N. Ezeilo (Ed.), *Family Stress Management*. Enugu: ABIC Publishers.
- Nweze, A. (1994). *Stress and Illness: Meaning, Causes and Effects and Prevention*. Presented at LECAPS Seminar Natural Library, Jos, June, 29th-30th.
- Obot, I.S. (1989). Treatment Options in Alcohol and Drug Dependence. *Nigerian Journal of Basic and Applied Psychology*, 2, 63-79.

- Obot, I.S. (1993). The epidemiology of alcohol and Tobacco Abuse in Nigeria. In I.S. Obot (Ed.), *Epidemiology and Control of Substance Abuse in Nigeria*. Jos: CRISA.
- Odejide, A.O., Ohaen, J.U., Adelekan, M.L. & Ikuesan, B.A. (1989). Drinking Behaviour and Social Change Among Youths in Nigeria: A Study of Two Cities. *Drug and Alcohol Dependence*, 20, 227-233.
- Ojiji, O.O., Dagona, Z.K. & Tamen, F.I. (1993). Women, children and Alcohol: a Study of Local Brewers in Jos, Nigeria. In I.S. Obot (Ed.), *Epidemiology and Control of Substance Abuse in Nigeria*. Jos: CRISA.
- Olademiji, B.Y. & Fabilyi, A.K. (1993). Trends in Alcohol Consumption Among Nigerian Undergraduates. In I.S. Obot (Ed.), *Epidemiology and Control of Substance Abuse in Nigeria*. Jos: CRISA.
- Onadeko, B.O. & Awotedu, A.A. (1983). Smoking Patterns in Females in Higher Institutions of Nigeria. In P. Bolla & F.E. Wright (Eds.), *Proceedings of the Fifth World Conference on Smoking and Health*, Winnipeg, Canada.
- Oyefeso, A, Ewhrudjakpor, C. & Osinowo, H.O. (1990). Attitude Towards Alcohol Use in Nigeria: The influence of Gender and Profession. *Indian Journal of Behaviour*, 14, 73-78.
- Owie, I. (1988). Alienation and the Use of Psychogenic Drugs Among Adolescents in Nigeria: Report *Journal of Alcohol and Drug Education*, 33, 37-40.
- Pavett, M.C. (1986). High Stress Professionals: Satisfaction Stress and Well Being of Spouses of Professionals. *Human Relations*, 39, 1141-1154.
- Peele, S. (1987). *The Meaning of Addiction: Compulsive Experience and its Interpretation*. Lexington: DC Health.
- Peters, J., Hedley, J. & Betson, T.C. (1997). A Comprehensive Study of Smoking in Primary School Children in Hong Kong: Implication for Prevention. *Journal of Epidemiology and Community Health*, 51, 239-245.
- Pilisuk, M., Boylan, R. & Acredolo, C. (1987). Social Support, Life Stress and Subsequent Medical care Utilization. *Health Psychology*, 6, 273-288.
- Price, R.H. & Lynn, G.J. (1986). *Abnormal Psychology*. Chicago: The Dorsey Press.
- Priest, M. (1988). *Anxiety and Depression: A Practical Guide*. London: Chapman and Hall.

- Quick, J.C. & Quick, J.P. (1984). How Good Working Relationships can Help Relieve Pressure on the Job. *Management Review*, 73, 43-45.
- Quipo, D. Alvarez, F. & Valasco, A. (1988). Drug Consumption Among University Students in Spain. *International Journal of the Addiction*, 33, 1243-1254.
- Rachlin, H. (1970). *Introduction to Modern Behaviourism*. New York: W.H. Freeman & Company.
- Rainwater, L. (1974). *Social Problems and Public Policy: Deviance and Liberty*. Chicago:
- Robertson, J.A. (1992). Coping, Social Support and Drinking Among Young Married Couples. In D.M. Warburton (Ed.), *Addiction controversies*. Chur: Hardwood Academic Pub.
- Santrock, J.W. (1990). *Adolescence*. USA: WMC. Brown Publishers.
- Sarason, I., Johnson, J. & Slegel, J.M. (1978). Assessing the Impact of Life Changes: Development of the Life Experiences Survey. *Journal of Consulting and Clinical Psychology*, 46, 932-946.
- Selye, H. (1956). *The Stress of Life*. New York: McGraw-Hill.
- Seers, A., Mcgee, G., Serey, T. & Graen, G. (1983). The Interaction of Job Stress and Social Support. *Academy of Management Journal*, 26, 273-284.
- Shader, R.I. (1994). *Manual of Psychiatric Therapeutics*. Boston: Little Brown and Company.
- Sheier, M. & Carver, C. (1987). Dispositional Optimism and Physical well-being: The Influence of Generalized Outcome Expectancies. *Journal of Personality*, 55, 169-210.
- Sheltzer, B. & Stone, S.C. (1980). The School Counsellor and his Publics: A Problem in Role Definition. *Personnel and Guidance Journal*, 41, 687-693.
- Sher, K.J. & Levenson, R. (1982). Risk for Alcoholism and Individual Differences in Stress Response Deponing Affect of Alcohol. *Journal of Abnormal Psychology*, 91, 350-361.
- Shiron, A. (1982). What is Organizational Stress? A Fact Analytical Conceptualization. *Journal of Occupational Behaviour*, 3, 21-27.
- Shultz D. and Shultz, S.E. (1986). *Psychology and Industry Today*. New York: Macmillian.

- Sijuwola, O.A. (1989). Dimensions of Personality and Smoking Behaviour. *African Journal of Medicine & Medical Sciences*, 18, 105-108.
- Swan, D.E. Denk, C.E. & Parker, S.D. (1988). Risk Factors for Late Relapse in Male and Female Ex-smokers. *Addictive Behaviour*, 13, 253-266.
- Sue, D. & Sue, S. (1990). *Understanding Abnormal Behaviour*. USA: Hughton Mifflin.
- Szase, T.S. (1961). The Myth or Mental Illness: *Foundation of Personal Conduct*. New York: Paul Hoeber.
- Szase, T.S. (1988). A Plea for the Cessation of the Longest War on the Twentieth Century - The War on Drugs. *The Humanistic Psychologist*, 16, 314-322.
- Tarter, R.E. (1988). "Are there Inherited Behavioural Traits that Predispose to Substance Abuse. *Journal of Consulting and Clinical Psychology*, 56, 189-197.
- Tolan, P. Miller, L. Thomas, P. (1988). Perception and Experience of Type of Social Stress and Self-Image Among Adolescents. *Journal of Youth and Adolescence*, 17, 147-163.
- Ugwu, L.I. (1998). Relationships Between Role-Based Stress and Perceived Psychological Burnout in People-Helping Profession. *ESUT. Journal of Social Sciences and Humanities*, 1(2), 109-119
- Uhlenhuth, E. & Paykel, E.S. (1973). Symptom. Intensity and Life Events. *Archives of General Psychiatry*, 28, 473-477.
- Ujorha, M.I. (1993). *Drug Abuse: A Global Crisis*. Nigeria: Adeleke Press.
- Vailant, G.C. (1983). *The National History of Alcoholism*. Cambridge: Harvard University.
- Vailant, G.E. & Milofsky, E.S. (1982). The Etiology of Alcoholism. *American Psychologist*, 37, 494-503.
- Waldron, I. (1978). Sex Differences in the Coronary more Behaviour Pattern. In T. Deubroski (Ed.), *Coronary more Behaviour* New York: Spring-Verlag.
- Warburton, D.M. (1980). Self-Medication. In M.M. Gramebe and J.R. Eiser (Eds.), *Research Psychology Medicine*. London: Academic Men.
- Webb, L.J. Snodgrass, D., & Thargard J. (1978). Sex Differences in Patterns Student Drug Use. *Dissertation Abstract International*, 39, 2578-2579.

- Wewers, M. (1988). The Role of Post-Cessation Factors in Tobacco Abstinence: Stressful Events and Coping Response. *Addictive Behaviour*, 13, 297-302.
- Wheatley, D. (1990). *The Anxiety jungle: Where Next?* Chichester: John Wiley.
- Wicker, E. (1973). Pharmacological Basis of Drug Use. *Archives of General Psychiatry*, 28, 611-616.
- Winokur, S., Reich, T., Rimnor, J., & Pilts, F., (1970). Alcoholism 11 Diagnosis and Familial Psychiatric Illness in 259 Alcoholic Problems. *Archives of General Psychiatric*, 23, 104-111.

CODESRIA - LIBRARY

APPENDICES

APPENDIX A

STRESSFUL LIFE-EVENTS AS IDENTIFIED BY RESPONDENTS FROM RURAL AND URBAN SETTINGS

1. Financial hardship
2. Death of the loved ones
3. Transfer to another area
4. Own children's misbehaviour
5. Nagging wife
6. Non-Payment of salaries
7. Payment of children's school fees.
8. Inability to buy basic needs
9. Children falling sick
10. Spouse falling sick
11. Too many negative events in life
12. Unhappiness/anger of no immediate cause
13. Accumulated debt that cannot be paid
14. Work overload
15. Divorce
16. Strained relationship with a friend/boss.
17. Poor health conditions of other members of the family
18. Anxiety/fear of unknown illness when one has nothing
19. Conflicting demands arising from my wife and my mother
20. Noisy home environment
21. Dirty home environment
22. "Unreasonable" financial demands from my partner
23. Impotency/children poor performances

APPENDIX B

Department of psychology,
University of Nigeria, Nsukka
October, 1998

Dear/Madam,

The researcher is from the above-mentioned Department. I would be very grateful if you would respond to the questions below. The information provided will be treated confidentially as the result of this study is merely an academic exercise.

Thanks for your co-operation

Yours faithfully,

Ugwu Leonard

Section A

Tick (✓) in the following boxes as they apply to you.

1. Sex: female [] Male []
2. Occupation
3. Marital status Single Married Divorced
 [] [] []
4. Location of your school Rural Urban
 [] []

Below are the list of 20 item stressful events that people experience. Please indicate in the response section the extent you feel these events in your life.

		Never	Moderately Severe	Severe	Very Severe
1	Financial hardship				
2	Death of the loved ones				
3	Transfer to another area				
4	Own Children's misbehaviour				
5	Nagging wife				
6	Payment of children's school fees				
7	Inability to provide basic needs to my family				
8	Children or any significant others falling sick				
9	Too many negative events in my life				
10	Accumulated debts that cannot be paid				
11	work overload				
12	Divorce				
13	Strained relationship with a friend or boss				
14	Personal poor health condition				
15	Conflicting demands arising from my mother and my wife				
16	My wife's unreasonably financial demands				
17	Noisy home environment				
18	Dirty home environment				
19	Impotency/infertility				
20	Children's poor performance (academically and otherwise).				

APPENDIX C

Substances of Abuse Questionnaire

Dear Respondents,

Listed below are some drugs which people use as coping mechanisms when confronted with stressful life events. Please indicate on the response section the ones that are applicable to you. Indicate your responses to the item by ticking (✓) against the ones that describe the level of usage.

		Never	Rarely	Sometimes	Always
1	Alcohol (beer, palm wine, dry gin, wine				
2	Tobacco (cigarettes, cigars, snuff				
3	Cannabis (hashish, Indian hemp, ganja, marijuana				
4	Sleeping pills				
5	Amphetamines (pep pills' speed)				
6	Coffee				
7	Kolanut				
8	Heroin				
9	Cocaine ('crack')				
10	Barbiturates				
11	Opium				
12	Sniff gases/fumes				
13	LSD (acid)				
14	Panadol, paracetamol				
15	Gene sniffing				

