"THE ROLE OF PEERS IN DRUG USE AMONG THE YOUTH: A STUDY OF COLLEGE STUDENTS IN NAIROBI."

BY

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DECLARATION

This thesis is my original work and has not been presented for a degree award in any other university.

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This Thesis has been submitted for examination with my approval as University Supervisor.

PROF. ERASTO MUGA

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DEDICATION

To Victor and to Ivy; Life may be rocking, confusing and turbulent. That is what we have been through. Sail on with faith, courage and love to God and His people, and you will cross over, in a big way.

To my parents, Brothers and Sisters; You moulded my life to what it is now. You gave me hope and courage. I could not have done better without you.

ABSTRACT

The high rate of population increase in Kenya implies that the population structure is becoming increasingly youthful. One direct effect of this is that problems associated with the youth, one of which is drug use, are also significantly increasing.

Invariably, this demands that more social studies should focus on such problems of the youth. College students are among the specific youth group that may be focused on. It is in this respect that this study, like a great number of social inquiries examines the social influences associated with drug use among college students in Nairobi.

Based on the assumption that drug use, like many other forms of human social behaviour, breeds from society, this study examines among college students, a number of social factors already shown to be associated with drug use. Among these included, peer association, stress, commitment to religion and to education, parental supervision and their families' social position. However, the major hypothesis was that peer association explains drug use and non use of drugs to a greater extent than the other factors. In view of this, the study also examines the relative significance of all the factors against each other.

The sample of college students is derived from all the nine colleges of higher learning in Nairobi, through a purposive random sampling method. Samples were drawn proportionally to the prevailing student population in the colleges. A semi-structured questionnaire was utilised to collect specific quantitative data, while the case study approach was used to gather important

qualitative data. In both cases, information was collected through individual interviews. To test the hypotheses, this data was analysed using descriptive analysis consisting of various measures of association. On the other hand, measures of predictive power of factors, the Kendalls tau a and b, were used to establish the relative significance of factors that were found to be associated with drug use.

Following the analysis of the data, the findings confirmed that peer association, religious commitment and the family's social position are related to drug use. In addition, there were clear indications that parental supervision, stress and commitment to education may explain the direction of a youths' attitude towards drug use, though the hypotheses were not confirmed. But more important, the study confirmed the major hypothesis that peer association exerts a greater influence on use or non use of drugs by the youth, compared to the other factors.

In conclusion, the study advocates that policies should focus mainly on the peer group which exerts most pressure for the youth to use or to abstain from drugs. Because the peer group will remain an important part of the youths' life, peer group attitudes should be reinforced against the negative ones, if drug use has to be controlled. While educational and religious institutions have a big role to play in this case, the family bears the greatest challenge of controlling drug use.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND

There are numerous substances that are used in medical practice or outside of it, which have all sorts of effects, some of which are positively valued by those who experience them. Of these, those that are medically prescribed are rightly used for 'social control' (Neubeck; 1979; 410)[1]. In schools, mental institutions, nursing homes and a variety of other settings, drugs are viewed as an appropriate means of controlling potentially disruptive people and sustaining good health. However, drugs that are used outside of medical practice; thus self administered are not rightly used, because they have not been prescribed by an authorized person, for their intended purpose.

Because our emphasis will be not only on drugs in general, some limitations must be placed upon the types of drugs to be considered in this discussion. These are specifically drugs used for non-medical purposes and/or which become available for the users through illicit channels.

These drugs not only include psychoactive substances that may affect the minds of those who consume them (Neubeck; 1979; 412)[2], but also their toxicology, pharmacology and medical aspects show that they have compounds which are dangerous to the human body. Take alcohol for example, it is explained (Neubeck;

1979; 384)[3] as a drug. Pharmaceutically categorized, it is a depressant or tranquillizer. Moreover heavy drinking of alcohol is said to be associated with various types of cancer... coronary heart disease... cirrhosis of the liver... and organic psychosis. The list of other drugs may be long indeed, but it includes cannabis, caffeine, heroin, morphine, khat, codeine and others. Our social situation in Kenya certainly limits this list to alcohol, tobacco, khat, cannabis and tranquilizers and a few others.

One of the most popular drugs in Kenya for example, that is beginning to affect a wider cross-section of the society, is khat (Haji;1985;1)[4]. It is made up of an alkaloid identified as Cathine, which is identical with the Central Nervous System stimulant compound, 'D.N.E.'(Haji;1985;10)[5]. On its toxicity, Carothers (Haji;1985;11)[6] noted that khat poisoning resembled that of alcohol. He claimed that at about thirty or forty years of age, the person who uses it becomes mentally and physically debilitated and may become sexually impotent.

All these drugs may be categorized in different ways. Oper and Tyrell (1990;277)[7] explained five categories of these drugs; Domestic drugs, Hallucinogenic drugs, Barbiturates, Stimulants and opiates. The first category, domestic drugs, includes caffeine found in coffee, tea and coca cola among others, alcohol and nicotine. Hallucinogenic drugs includes mescaline, L.S.D (D-lysergic acid diethylamide) and cannabis which is obtained from the topmost leaves of the hemp plant, cannabis sativa. Barbiturates are a group of depressants which are used extensively as sleeping tablets, and for the treatment of

epilepsy. Their intended effect is to produce drowsiness. Stimulants include cocaine and a group of amphetamines, whose effects is to increase the rate of breathing and heartbeat. Lastly the opiates contain the painkiller morphine and codeine, while heroin is in turn derived from morphine. In a nutshell this categorization, encompasses all those drugs that have been abused by human beings.

Drugs have had a long history of use, when their harmful effects were not known. In Jamaica for example, Cindersmith et al (1964;161)[8] explains that cannabis (`ganja' or `marijuana') was and is still regarded as a sovereign remedy for many ills, especially for respiratory ailments. It is often referred to as `the wisdom weed' and is endowed with religious significance, for it is said to bring the individual closer to God. The cultivation and use of this substance is defended and justified by reference to biblical passages, which are also used in defense of peyote, by the members of the Native American Church or `peyote cult'. For the Ras Tafari of Jamaica- a back to Africa politico-religious group- `ganja' is a symbol, and an article of faith.

Similarly, khat, a popular drug in Kenya, has its unique history. According to Haji (1985; 1)[9] this substance took a long time for people to discover its harmful effects. It was in 1939 that the British government realized the problems associated with khat use especially amongst its military personnel and local administrators, which led them to improve control measures in the then British colony and protectorate, Kenya. The first serious step was taken when an act of prohibiting the use and sale of khat was enacted in 1952 under the`Miraa Prohibitive act' of 1952

(revised in 1962), laws of Kenya, chapter 339. This act was suspended in 1972 by the then Kenyan President Mzee Jomo Kenyatta. To date, khat is still legally sold in Kenya.

1.2 PROBLEM STATEMENT

Deviance and conformity are two related concepts of the same coin. The two explain human behaviour in relation to the standard social norms of a society. While deviant behaviour is that "behaviour which departs from or conflicts with standards which are socially or culturally accepted within a social group or system" (Gould; 1964; 196)[10], conforming behaviour is that behaviour that abides with the socially accepted standards within a social group. Going by this definitions, we are assuming that society is regulated by a shared moral system.

The above definition is typically identified as 'absolutist' (Rock; 1976; 149)[11]. 'Relativists' would deny the possibilities of speaking ex cathedra on behalf of society and would thus judge the normality or deviancy of a particular item of behaviour relative against the standard of the particular group you choose as your moral yardstick. While it is not the purpose of this study to discuss absolutism and relativism, the study will dwell on the use of drug as a form of deviance.

This study will attempt to focus on drug use among college students in Nairobi. Drug use according to the general moral yardstick of our society, is one form of deviant behaviour that has been condemned widely. Many organizations have committed immense sums of money and effort, towards the control and fight

against drug use and abuse. These include the United Nations, Fund for Drug Abuse and Control (UNFDAC), the Kenya Drug Abuse and Juvenile Delinquency Organisation (KADDO) and the Organization Fighting Against Drug Abuse and Trafficking (OFADAT) in Kenya. Governments have also been on the frontline fighting to control drug use and abuse, a problem that has spared no nation.

In Kenya, the drug problem revolves around the following drugs identified by prior studies ; tobacco, khat, alcohol, cannabis, stimulants, inhalants and tranquilizers (Yambo and Acuda; 1983; 4)[12]. Apparently the possibility of availability, use and/or abuse of other drugs cannot be virtually dismissed at present times.

It is not only commonly held that drug use is on the increase in Kenya, but findings have also established that fact. One organisation that has expressed concern about this problem is KADDO. The organisation believes that drug abuse is increasing at an alarming rate despite efforts to check it. And the increase is vivid among the youth in Kenya.

According to a recent report released by KADDO, more than a quarter of Kenya's high school and university students are drug addicts and almost all of Nairobi street children are abusers. Out of the citys' 3,500 street children, 99.8% of them abuse drugs. Of the students in high schools and universities, 25.35% are addicts. In comparative terms, 90% of drug abusers, before independence, were adults aged below 30 years. Today, 60% of drug abusers are below 18 years. Daily Nation, 5th November 1990)[13].

Meanwhile, the implication of this to the health status of the users is also chilling. Worldwide, three million tobacco related deaths are recorded every year. One million of these deaths occur in developing countries, where cigarette consumption has risen to an average of 70% during the last 25 years (Ball, 1990, 23)[14]. This implies that in the long run, we should witness a significant rise in tobacco related deaths on account of the present rise in consumption, mainly among the youth.

Unfortunately, the rise in tobacco related deaths is mainly noted among Third world countries as tobacco related deaths are declining among western countries such as Britain and the USA. This sadly implies that the use of drugs associated with such deaths are increasingly being used among Third world countries. The same can be safely concluded about the use of other drugs that were little known in Third world countries.

Therefore, it is quite important that efforts are made to understand drug use among the youth. Problems facing adolescents and the youth call for great attention, because this category of people represents a problematic period in life (Perry; 1984; 214)[15]. It is during this period that one's characteristics of adulthood is moulded and shaped. Therefore if one adopts a deviant behaviour in youth, he/she is likely to sustain it through his/her adulthood.

This period is also said to be a period of confusion and conflict. On individual basis, conflicts that occur between parents and adolescents or the youth, often revolve around the issue of sex, alcohol and drugs (Perry; 1984; 213)[16]. The problem for example is that the youth may want to use drugs or

have sexual relationships at will, while the parents do not want them to. The youth gets confused, because (s)he is in a stage where he is too old for childhood, but too young for adulthood.

To the extent that drug use and abuse among the youth has been one particular cause of concern among parents, policy makers and institutions, a lot of effort has been dedicated to understanding why the youth indulge in drug use. Although it is not clear why the youth indulge in this form of delinquency, there is general agreement that delinquency occurs most often within a group context (Empey; 1967; 30)[17]. For us to understand the factors that are associated with the use of drugs among the youth, we should seek to know the kind of life the youth leads in relation to the society around him. This will be the purpose of this study. More specifically, the study will attempt to distinguish those factors that provoke, encourage or sustain the use of drugs. The study is therefore concerned here as in a great number of social enquiries, with a group phenomenon - social groups that determine one's eventual behaviour, for example delinquent groups' (Sutherland; 1947)[18] peer attachment and 'parental control' (Hirschi; 1969)[19].

1.3 OBJECTIVES OF THE STUDY

This study concerns drug use and abuse among the youth in colleges in Nairobi. The principal attempt of the study will be to explore the circumstances which are attributed to drug use among the youth. The study will hold the view that the moot question concerning drug use as a selected adaptation to the

social system may be countered to a great extent by searching for the complex conditions in society. As such, the study like a great number of social inquiries, is concerned with group phenomenon as is related to drug use.

Much emphasis will be laid on the role of peers on drug use and abuse. This is because notions centred on the role of peers in the process leading to adolescent drug use, for example differential association and group pressure notions, have received substantial empirical support (Johnson et al; 1987; 326)[20].

Nevertheless, to explain drug use fully, the role of peers will not be viewed in isolation of other conditions that have an impact on drug use. Notions such as 'parental control' emanating from the control theory by Hirschi (1969)[21] and notions from other perspectives will also be considered. In so doing, the study will stress the importance of interactions with peers and others who serve as reference groups for the youth, and other complex conditions associated with drug use.

This study will specifically investigate this phenomenon among college students in Nairobi. They represent an important group of youth in our society, and their number is fast swelling. Hence in summary, the general objectives of the study are:

1. To identify the drugs of use and abuse among college students, by examining the drugs that are available to them, the extent to which they are available, and the ones they actually use and abuse.

2. To identify a spectrum of factors that are related to drug use among the students, by taking a sociological perspective that attributes the phenomenon to the interplay between the youth and his social environment.
3. To compare the impact of these factors upon the group of college students - drug users and non - drug users.
4. To explain the implications of these findings for policy makers, further research and social institutions.
5. To suggest appropriate control and remedial measures that would counter this behaviour.

1.4 SPECIFIC OBJECTIVES

1. To determine the background variables that are related to drug use, and explain the patterns pertaining to them.
2. To examine the extent to which drug using students emulate this habit and attitude from their peers.
3. To examine the relationship between drug use and the extent of religious attachment.
4. To explore the association between educational attachment and drug use.
5. To determine if there is any relationship between the students' uncertainty of the future, and the use of drugs as an adaptation.
6. To examine whether a relationship exists between parental control and drug use.

1.5 SIGNIFICANCE OF THE STUDY

This study will go a long way to complimenting previous research on drug use and abuse in Kenya. Although it is true that several studies have focused on the drug problem in Kenya, the search for the complex conditions pertaining to the problem must go on to fill gaping lacunas and introduce new reasoning. The study shall attempt to fulfil this.

Moreover the study will attempt to approach the problem from a perspective that narrows down the problem to sociologically related factors, and thus attempt to be as precise as possible. Empey argued that definitive research on the precise character of delinquents as contrasted with convectional group is desperately needed (1983)[22], and we agree with him.

At the same time, the study may be viewed as an examination of those factors that have been found to be related to drug use and abuse and see whether they hold true in kenya. This will maintain the possibility for a fruitful exploration of the relevant theories, with known techniques in Kenya.

This study appropriately relates to the wider population. It relates to those who come into contact with the youth, those who are entrusted with their affairs and all drug users in general. For this matter, policy makers and parents have something to learn from this discussion.

Similarly, the study relates to a critical group in Kenya-college students. Enormous resources are continuing to be dedicated to Universities and Colleges, which at this time are undergoing a major expansion. According to recent estimates,

(Daily Nation 25th September 1990)[1] by the end of the year 1991, the entire population of university will have reached 45,000. Hence in addition to these reasons, this study is timely, because it is carried out at a period when the newly introduced 8-4-4 system of education is penetrating universities and colleges. Considering these factors together, it is clear that college students will continue to make a more critical and influential group than ever before.

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CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

The use and abuse of drugs has been generally categorized as a form of deviance or an indicator of delinquency. Explanations of deviant behaviour have been applied to the use and abuse of drugs as a result of this. However, because defining an act as deviant or criminal is not a simple straight forward process, defining drug use and abuse becomes equally complex. All these are social definitions. Nevertheless this has not hindered scholars from seeking explanations of this kind of maladaptive behaviour.

Explanations of deviance or criminal behaviour can be broadly differentiated into three categories: Biogenic explanations, Psychogenic approaches and Sociogenic theories (Tony.et.al. 1978;450)[1].

According to Tony, the first two approaches attempt to answer the questions, 'what kinds of people commit crime' and 'How do they get like this?'. They attempt to identify types of maladjusted individuals with some defects or pathological characteristics which predispose or impel them towards involvement in criminal activity (1988; 451)[2]. Hence while biogenic explanations seek to know whether alcoholism, for instance, is linked to the biological makeup of particular

individuals, psychological approaches would attribute alcoholism to particular personality traits that alcoholics presumably possess.

Sociogenic theories on the other hand, see criminal behaviour as socially acquired and hence focus on the ways in which cultural and/or social structural factors are crime-producing. Thus social environmental factors or subcultural socialization experiences in family, class and peer make it likely that some social groups will be involved in criminal activity (Tony et al; 1988; 451)[3].

In addition, sociogenic explanations differ on their explanatory factors. According to Akers et al (Yambo; 1983; 4)[4] these explanations of behaviour (deviant and/or conforming) fall into two broad categories. There are theories which stress the social class/structural or situational origins, consequences or correlates of patterns of particular groups (cohorts) such as lower class youths, high school students, school drop outs and so on.

Akers continues to explain (Yambo; 1983; 5)[5] that on the other hand, there are theories which concentrate on individual or group behaviour and explain particular aspects of it in terms of the personality (attitudes, other behaviour and other predispositions) of individuals or groups concerned. These theories have a behavioral perspective. They try to find the non-structural mechanisms by which socio-structural variables produce observed patterns of behaviour in identified individuals or populations. Concerning behavioral perspective, Yambo adds, 'that it is conceivable that the impact of social class is

significantly mediated by other situational or environmental factors. People will not abuse a certain type of drug no matter what their social class is, if it is not available in the physical sense...directly...or indirectly through friends' (Yambo; 1983; 7)[6]. In other words, availability of the drugs precedes their use and abuse.

2.2 SOCIAL LEARNING THEORY

In the recent past the behavioral perspective has received a significant amount of attention, where a number of studies have highlighted its notions. At the same time the perspective has undergone some adjustments, from where for instance, the social learning theory emerged. This approach emerged because some behavioral psychologists were not content with the view that behaviour is due to some simple forms of respondent and operant conditioning.

In broad terms, the social learning theory involves a very complex form of conditioning in which the contingencies and the rewards are frequently difficult to isolate and identify, operate to shape and mould behaviour in a gradual way. The increments of learning may be so slight that the process goes unnoticed. Eventually the form and significance of the behaviour patterns that have been developing become apparent. In the case of maladaptive behaviour, by the time the abnormality is realized, it has become deeply entrenched and may be highly resistant to change.

In explaining behaviour the theory actually encompasses many sub-theories like Sutherland's differential association, and the operant conditioning theory (Johnson; 1987; 325)[7]. For example, when Akers et al (1979)[8] presented a test of social learning theory with survey data on adolescent drinking and drug use behaviour, their analysis concluded that the central concepts of the theory (differential association, differential reinforcement, definitions and imitations) form a powerful explanatory framework for these specific forms of adolescents' deviance (Strickland; 1982; 162)[9].

2.2.0 Differential Association

According to Aker et al (1987; 170)[10] the differential association theory was presented by Sutherland (1947)[11] as a learning theory, and an addition of reinforcement variables, was to specify this learning process. Differential association as developed by Sutherland was a statement of the balance of favourable and unfavourable definitions. Social learning theory recasts but does not discard these definitions as important discriminative stimuli for behaviour.

Differential association as defined by Sutherland (1947;19)[12], is based on the conception of modern society as heterogeneous and segmented into conflicting groups, and it asserts that "crime is rooted in normative conflict. In industrialized societies, at least definition of legal codes that favour law violation exist alongside definitions unfavourable to law violation".

Sutherland gave the name differential association to the process by which persons experience these conflicting definitions about appropriate behaviour. Thus definitions favourable and unfavourable to delinquent or criminal behaviour are learned through interaction (communication) in intimate personal groups. This differential learning includes the specific direction of motives, drives, rationalizations and attitudes-whether toward viewing legal codes as rules to be observed or broken. A person becomes delinquent because of an excess of definitions favourable to violation of law over definitions unfavourable to violation of law "(Sutherland and Cressey; 1978; 81)[13].

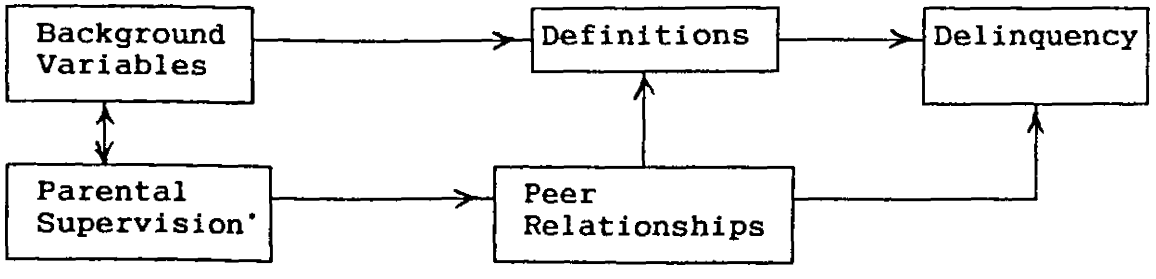
Both favourable and unfavourable definitions (behaviour patterns) are weighted by frequency, duration, priority and intensity. Thus, behaviour patterns presented with greater frequency, presented for a longer time, presented earlier in life and presented from a more prestigious source, will have more weight in the process producing delinquent or non-delinquent behaviour (differential association).

In developing differential association theory, Sutherland attempted to account for both the distribution of crime rates and for individual cases of criminal behaviour (1973; 18-20)[14]. Because true crime rates are summary statements about the frequency of individual criminal acts they are determined by proportions of persons receiving an excess of criminal behaviour patterns, through the differential association process. In other words, "the extent to which a group or society is organised in favour of crime as against the extent to which it is organized against crime, determines its crime rate" (1973; 31)[15].

Sutherland gave the name 'differential social organization' to this process whereby certain structures translate normative conflict into various rates of crime. Moreover, he proposed that structural conditions such as class, age, sex, ethnicity and family status affect individual criminality (and thus aggregate crime rates) only by affecting the probability of learning behaviour patterns favourable and unfavourable to law violation (1973;31)[16]. Thus any effects that these factors have on either criminality or crime rates are mediated by the process of learning definitions favourable or unfavourable to delinquency.

In summary, according to the differential association theory, definitions of the legal code mediate the effects of structural factors on crime. And also, learning of delinquency may take place in intimate personal groups. The peer group has been regarded as the primary context of such learning though the family surely is potentially relevant in this regard " (Wilkinson and Erickson; 1982; 223)[17]. It is actually because of these that the differential association theory is regarded as a sub-cultural theory, emphasizing on sub-cultural relationships. A simple model derived from the differential association theory, showing its important notions may be illustrated as follows:

Figure 1: A simple model of differential association



Source: Matsueda (1982; 492)[18].

2.2.1 Differential Reinforcement

In an attempt to make differential association theory more empirically testable, some theorists have reformulated Sutherland's differential association theory (for example Burgess-Akers; 1966[19] and Adams 1973)[20]. They did this by applying the operant conditioning theory to sophisticated human behaviour. They reformulated the nine key statements consisting of the axiomatization of Sutherland's theory, giving the differential reinforcement theory (see Halbasch; 1979; 218-219)[21].

For example, Burgess-Akers stated that `criminal behaviour, is a function of norms which are discriminative for criminal behaviour, the learning of which takes place when such behaviour is more highly reinforced than non-criminal behaviour" (Halbasch; 1979;218)[22]. This statement represents one of the reformulated nine key statements of the differential association theory. To explain reinforcement and punishment of criminal behaviour, this theory does it by using the operant conditioning language more.

To this extent, the theory's attempt to reformulate the differential association theory has raised several questions. It is said that originally operant conditioning theory was apparently conceived of as being under rigorous "behaviouristic constraints" (Halbasch 1979; 226)[23]. Thus the moot question asked is whether it is plausible to believe that true laws governing criminal behaviour can be formulated in operant conditioning theory, or whether operant conditioning theory basic constraints makes it inadequate for this purpose.

Nevertheless, it is the above sub theories namely, differential association, differential reinforcement and operant conditioning theories as well as the definition and the imitation concept that make up the social learning theory. Akers therefore explains that the theoretical framework of social learning theory assumes that the primary learning mechanisms in social behaviour is operant (instrumental) conditioning (1979; 637)[24]. Social behaviour is shaped through direct operant conditioning as well as through imitation of others' behaviour. The acquisition and persistence of behaviour (deviant or conforming) is contingent upon differential reinforcement, that is, the balance of rewards or punishments attached to alternative behaviours.

In addition, Strickland (1982; 162)[25] explains that evaluative definitions of particular behaviours are learned in interaction with significant groups; these definitions are themselves behaviours which can be directly reinforced and serve as discriminative stimuli for other behaviour.

Thus the key proposition which links these reinforcement concepts to the concepts of differential association is as follows: "the principle behavioral effects come from interaction in or under the influence of those groups which control individual's source of behavioral models and normative definitions. The most important of these groups with which one is in differential association are the peer-friendship groups and the family '(Akers et al; 1979; 638)[26].

Therefore deviant behaviour in the form of use/abuse is determined by the extent to which the particular behavioral pattern is "sustained by the combination of the reinforcing

effects of the substance with social reinforcement, exposure to models, definitions through association with using peers, and by the degree to which it is not deterred through bad effects of the substance and/or the negative sanctions from peers, parents and the law "(Akers et al 1979; 638)[27].

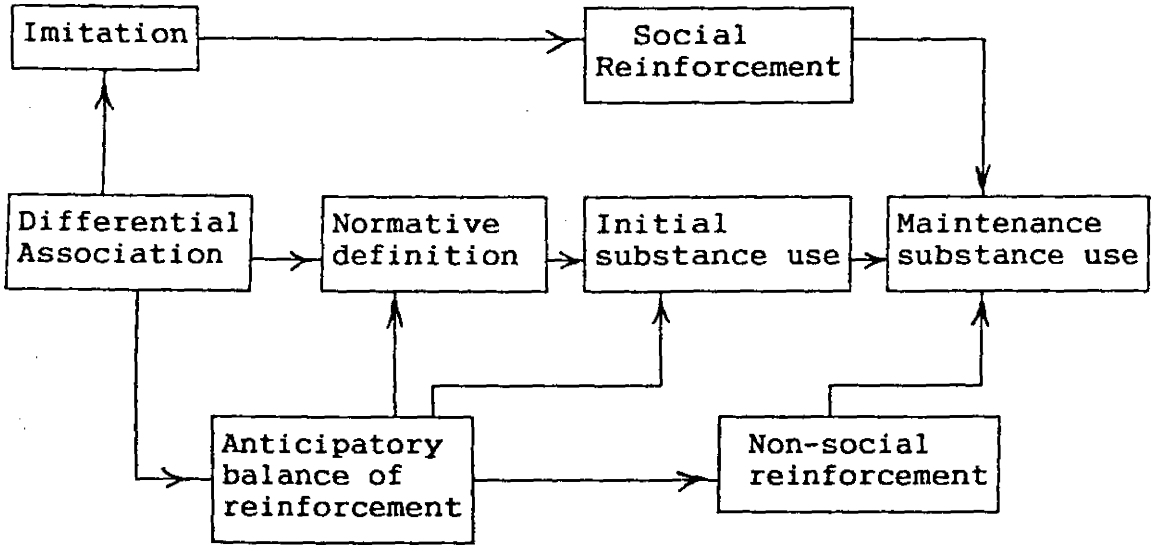
Further more, Akers and colleagues point out that social learning theory proposes a process which orders and specifies the interrelationships among these variables (1979;638)[28]. Differential association provides the social environments in which the imitation, definitional development and social reward processes are experienced. These processes in turn provide the specific mechanisms by which the effects of differential association on deviant behaviour are experienced.

This research by Akers et al (1979)[29] did not escape criticism, however. Strickland (1982; 163)[30] largely attacked their data analysis technique, stating that there was lack of congruence between the analytic model and the formal theoretical structure proposed by Akers and colleagues. On the other hand, Stafford and Ekland-Olson mostly challenged their conceptualization, stating that the social learning theory remained inconsistent with existing data (1979; 167)[31]. In spite of this, Akers et al (1982; 169)[32] maintained that their intent was primarily to test the explanatory power of the overall social learning model, and only secondarily to begin the exploration of the relative efficacy (but not linkages) of its component parts, explicitly acknowledging the conceptual and measurement interrelationships among the variables.

At this point it is sufficient to suggest that the social learning theory takes a behavioral perspective, in that among other things, it assumes that the basic elements in learning seem to be continuous from animals to man, and that these can quite appropriately be extended to include social interaction as well as individual behaviour (Mc Ginnies; 1970; 34)[33]. Because of this then "one must, however be tentative in suggesting that the system (human social behaviour) can be completely described in terms of rules formulated on the basis of its operation in highly limiting circumstances" (Borger and Seaborne 1969; 79)[34].

The following illustration below summarises the social learning model, as it was illustrated in its original form.

Figure 2: The Social Learning Model



Source: Akers et al 1979; 647, [35]

2.3 CONTROL THEORY

Matsueda (1982; 429)[36] observed that it is largely true that a major contemporary controversy in the sociology of crime and delinquency concerns two dominant theories of criminal behaviour: Sutherlands theory of differentials association and Hirchis control theory.

Hirschis' control theory (1969)[37], suggests that definitions of the legal code do not mediate structural factors. Instead of asking why some persons engage in crime, control theory asks why most persons refrain from criminal behaviour. Delinquency is taken for granted; conventional behaviour is problematic. Control theory maintains that persons conform to legal codes because they are bonded to society. Accordingly, when a person's bond to society is broken or weakened, he or she is free to engage in delinquency - but is not required to do so (Matsueda 1982; 490)[38]. For Hirschi, then, the motivation to commit delinquent and criminal behaviour is constant across persons and thus is not an explanatory variable (Hirschi; 1982; 10-11)[39].

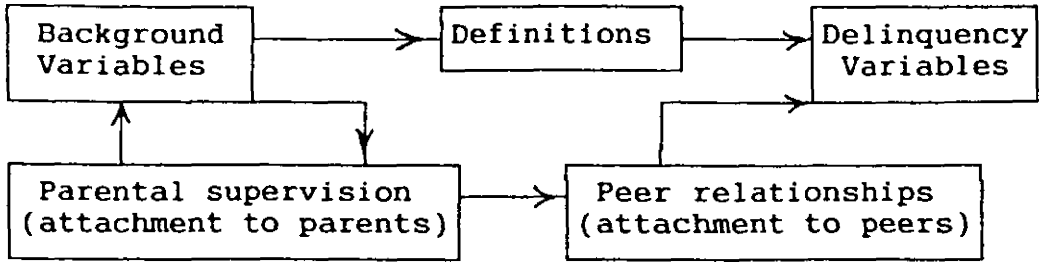
Hirschis' social bond theory , consists of four elements; attachment, belief, commitment and involvement. Because the fibres or elements of each strand resemble those of others, these strands are positively intercorrelated. However, each affects delinquency independently, so the four are analytically separable (Hirschi; 1969; 27-30)[40]. Attachment, perhaps the most important strand in the bond, contains a moral dimension that dissuades persons from delinquency. For Hirschi, there are no delinquent subcultures. Instead there is a variation in the extent to which

people believe in society's norms, and the less their belief, the more likely they are to engage in delinquency. Commitment to conventional activity dissuades persons from delinquency because when considering delinquent behaviour, a person who has invested time and energy in a conventional activity such as getting an education, calculates the risk of losing the investment. Finally involvement in conventional activity reduces delinquency by limiting ones time to contemplate and commit delinquent acts.

Johnson et al (1987; 323-339)[41] on control theory holds the view that the control theory ignores a major and eminently conventional institution which could serve to control deviant impulses, and this is bonds to religion. By including religious attachment to the model, the scholar believes that the social bond model is strengthened. They also believe that Hirschis attachment construct is clearer and more useful if it is separated into attachment to parents and education, with attachment to education incorporating most useful aspects of Hirschis involvement and commitment constructs (Johnsons et al 1987; 324)[42]. Moreover, these scholars prefer to specify Hirchis belief construct as the degree to which one holds conventional values.

A simple model of control theory showing how social bonds tend to control deviant impulses may be illustrated as follows;

Figure 3: A simple model of Control theory



Source: Matsueda (1982; 492)[43]

Although this model almost resembles that one for differential association (figure 2), it has a different interpretation altogether. For instance while from the differential association theory perspective, parental supervision reduces delinquency by increasing exposure to antidelinquent definitions and decreasing exposure to delinquent definitions, Hirschi treats parental supervision as an indicator of attachment to parents and explains that it reduces delinquent behaviour (figure 3) by dissuading a person from committing delinquent acts.

2.4 MODELLING APPROACH

The modelling approach has also been used in the attempt to answer the question of whether the value system of high school and college adolescents conflicts with those of their parents. This approach views the behaviour of youth as modelled behaviour. "The childs' active imitation of parental attitudes and behaviour ... often counteracts the effects of their direct training" Bandura (1971; 357)[44].

Although drug use has been considered one specific behaviour which opposes parental value systems, 'parents may condemn their children's use of drugs yet use them "(Ellis and Stone 1979; 323)[45]. To the extent that parents serve as models for their offspring's behaviour, drug use is but one of the areas in which such modelling takes place (Ellis and Stone 1979; 324)[46]. Viewed in this fashion, non-medical drug consumption by youth becomes an expression of generational and cultural continuity. Furthermore, and in line with this interpretation, youthful involvement with illicit drugs may be interpreted as a form of conformist behaviour (Tec; 1974; 350)[47].

Nevertheless, some scholars have viewed modelling as a type of social learning theory, because the behaviour of one person or a social group serves as a model for similar behaviour in other people (Dinitz 1973; 79)[48]. In this case, the important idea is that behaviour is learned by observing the behaviour of other people and similarly, attitudes and opinions may be formed as a result of exposure to the attitudes and opinions of others.

2.5 GROUP PRESSURE

The basic idea behind the group pressure notion is that an individual's parent or friend, forms a social situation which contains pressure to conform to their behaviour. For example (Johnson et al 1982; 328)[49] explained that "parental drug use and proportion of drug use friends are thought to have direct influences on drug use". Those whose parents and friends use

drugs, are presumed to be more likely to find themselves in social situations which contain pressure to use drugs.

2.6 STRESS

Stress is the condition of the body when it is being influenced by real (or imagined) pressures or stressors. These stressors may be physical, for example, noise, bright lights, extreme temperatures, high humidity, abnormal biometric pressure or pain. There are psychosocial stressors in the form of failure, indecision, conflict, frustration, feelings of guilt, insecurity, lack of status and similar conditions (Tony et. al 1978, 151).[50]

In considering the development of abnormal behaviour, it is important to remember that environmental pressures often lead to internal stress. A difficult situation in school, at work, or in the home creates stressful conditions within the body, which are capable of triggering organic changes of an important kind. While stress may be a major - and perhaps necessary - precondition in the development of some forms of abnormal behaviour, it is not invariably followed by abnormal reactions. The severity of a stressor is determined by a person's perception. What is a stressor to one person may not be a stressor to another. Failure in a course may be enough to send one student into deep depression while a similar failure may be shrugged off as unimportant by another student. The first student is under stress; the second student is not.

2.7 KENYAN STUDIES ON DELINQUENCY/DEVIANCE

So far as delinquency or deviance in Kenya is concerned, one of the earliest, most comprehensive studies undertaken was by Muga (1975)[51]. The study focused on crime and juvenile delinquency. This study attempted to look at the religious background, level of education, parental background, type of family and parental physical disability of the juveniles and see whether these factors are related to their delinquency.

The study found out that over 60% of the juveniles had a level of education of between standard one and form one; about 60% of the juveniles' parents had a level of education of between standard two and form three; in only 40% of their families did the father live together with the mother while the rest were divorced, separated, unmarried, prostitutes or widows; and over 65% of the juveniles were Roman Catholic (Muga 1975; 118-122)[52].

The significance of this study is that it highlighted most of the background information that is important when considering delinquency. Background variables such as socio-economic status have been shown to be associated with the other variables that are related to delinquency. It is in this light that Sutherland and Cressey (1978; 220)[53] hypothesized that low socio-economic status may affect delinquency,either by increasing the probability of encountering many delinquent behaviour patterns in low class areas or by affecting a child's denial or acceptance of conventional values." Studies that focus on background variables, for example Muga's (1975)[54], explains delinquency from a social structural perspective. They present the idea that

behaviour can be possibly affected directly by socio-structural factors.

Another research conducted in Kenya was done by Owino (1982)[55],on secondary students, and teacher trainees, to determine the problems of drug use among them. The report's conclusions as summarized by Yambo (1983; 21-23)[56] were that;

1. 32.4%of the students were regular users of alcohol (that is at least 3 times a week); 20.6% regularly smoked cigarettes; 1.9% chewed " miraa" occasionally; and 2% had tried cannabis. In addition, 42.1% of the students, mostly females had never used any of the drugs.
2. Alcohol, cigarettes, cannabis and khat are used widely in that descending order.
3. The main source of information about drugs are friends and relatives (for 70.7% of the students) newspapers and books (25%), personal observation or curiosity (3.5%) and advertisements (0.8%).
4. Bars, social gatherings, drug stores, shops, school labourers and black markets, are among the major sources of drugs for the student population.
5. Drugs of addiction dependence are taken in descending order; alcohol, cigarettes, cannabis,'kungu manga' and Khat.
6. The study found that according to parents and teachers, the four main reasons why students take drugs are in descending order; influence by bad friends, excessive pocket money, easy acquisition of drugs and bad parentage. Nevertheless,

it is particularly interesting that Yambo (1983; 23)[57] observed that this study was carried out hurriedly.

A study by Yambo and Acuda (1983)[58] also yielded substantial results on drug use and abuse in Kenya. This study was more thorough and more sociological in determining the nature and causes of drug use and abuse among the youth. Their conclusions (89-104)[59] were as follows;

1. Drug abuse is widespread and seems to be on the increase.
2. The abuse of particular drugs is positively related to their easy availability.
3. While socio-economic status influences the pattern of drug use, its impact is mediated by such factors as the physical availability of drugs and religion.
4. A person does not acquire the habit of drug abuse, merely because it is available; the habit must first be learnt from others.
5. If learning to abuse the particular drugs presupposes their physical availability, it follows that most drugs of abuse are those locally produced, or licitly imported.

This study was carried out in two districts, one urban (Nairobi) and the other rural (Machakos). The study focused on teenagers, although parents and priests were also interviewed.

In 1985, Asha Haji carried out a research on the socio-economic factors related to khat use and abuse in Garissa town. She noted that although khat is mostly used in the predominantly

muslim parts of Eastern Africa and the Middle East, its use is beginning to affect a wider cross section of our society (1985;1)[60].

Haji set out to determine the extent, nature and the causes of khat use and abuse. She found that khat chewing is related to the socio-economic problems of the chewers, which include reduced work productivity, family instability, and on the part of students, it leads to failing or performing poorly in examinations or dropping out of school (1985;3)[61].

The study endeavoured to test the hypothesis that `the easy unrestrained association between khat users, abusers, and non-users and the easy availability of khat promotes its widespread acceptance and use". The results gathered showed that khat users learnt most of their habit from friends (52%), society (16%), oneself (11%), relatives (7%), others (12%), while 2% could not remember.

Moreover, the study also tried to explain the failure to achieve aspired goals to khat use and abuse. Haji argued that "the problem of widespread use and abuse of khat cannot be understood unless placed in the context of the rapid and erratic socio-economic change that has occurred in the country under question" (1985; 150) [62]. Thus she explained khat use and abuse, using Durkheim's Anomie Theory where social change from outside forces, has led to socio economic difficulties and conflicts.

More recently, a report on drug use was read in Kisumu in the discussion of the United Nations Convention on the Rights of the Child, by Mr. Chemoiywa (1990)[63]. Chemoiywa, talking on drug abuse and its effects on child survival and development,

commented that, "the availability of a drug was related to the use of the drug" (1990; 9)[64]. According to him, studies had identified the major drugs of abuse in Kenya as alcohol, tobacco, cannabis, "miraa", and to a lesser extent, tranquilizers and volatile solvents, petrol, glue, and plastic. He also added that 60% of young people aged twelve to twenty four years, drink alcohol regularly, with at least 10% of them drinking varying amounts and types of alcohol daily or almost daily (1990; 10)[65].

Chemoiywa also pointed out that children start smoking cannabis, for experimental or curiosity reasons, while some smoke it in order to escape from problems or to relieve tension to depression (1990; 10)[66]. It was then suggested that one way to prevent the increase of drug abuse amongst the youth, lay in the socialization process and in family relationships (1990; 11)[67]. Because the results of this report were presented in a workshop on criminal justice and children, it was not possible to know how Chemoiywa collected this information - that is whether by field research, library research and so on.

2.8 STUDIES FROM EUROPE AND AMERICA

2.81 Size of the problem; A historical perspective

In his study on "Drugs and School children", Wiener[64] discuses the history of drugs and when they reached America and Europe. Drugs, particularly narcotics, were used widely in the middle and far east as far back as the 18th and 19th centuries. In 1962, there were in the world perhaps 5 million abusers of

sedatives, tranquilizers and stimulants, and 10 million non medical or illicit users of narcotics (Fort, 1981, 130)[69]. Fort also estimates that those who repeatedly use the LSD type of drug probably numbered hundreds of thousand. Winnick[70] estimates that 200 million throughout the world were marijuana users at that time.

Within the western world, the drug problem reached America first in the late 19th century when the discovery of heroin and that of the syringe followed closely upon one another. The problem in England is of a more recent origin. This is demonstrated by the fact that the Brain Committee of 1961 concluded that in Great Britain the incidence of addiction of drugs controlled under the Dangerous Drugs Act 1951, was still very small, and the traffic was almost negligible, except for cannabis. Yet by 1964 the Brain committee had to be reconvened because of the rise in the number of non therapeutic addicts - heroin, cannabis, hallucinogens and amphetamines.

One of the early studies on drugs and school children by Wiener[71], attempted to find out factors related to drug use. The study compared users and a control group, and its major conclusions were;

1. As regards the distribution of the subjects on the variables of age, social class, sex and trouble with the police, there was comparatively little difference between the four areas,
2. Compared to the matched controls, drug takers were less likely to refer to their parents with a personal problem. They felt less close to there mothers and felt that their parents had been more lenient with them. They also felt they did worse at

school and reported they had been in trouble with the police more frequently than the controls did.

3. The leisure activities of the drug takers when compared to that of the controls, was more typical of the behaviour of an older age group. For example, they went to pubs and dancing. They also had more money to spend and tend to spend it on clothes, cigarettes, drinks and drugs. They smoked and drank more than the controls, and tended to mix in peer groups whose members also drunk, smoked and took drugs. They spend more time in mixed peer group company than did the controls, and were less nervous about peer group relationships.

Another study focusing on drinking in a london suburb, came up with interesting findings (Edwards et. al.,1976, 5-21)[72]. These findings in summary were;

1. Male drink more than female.

2. Younger age groups drunk more than the older ones.

3. Comparing Catholics and Protestants, among males there is a significant tendency for Catholic subjects to be heavier drinkers, but among women, the tendency though in the same direction, is not significant.

4. Nationality defined in terms of the fathers' nationality, Scottish and Irish combined, both men and women are more heavily represented among the heavy drinking category, than the English and Welsh.

2.8.2 A Study from America.

A study by Clarke (1971, 120-130)[74], examined the pattern of relationships between marijuana use and certain social and political orientations among high school seniors. According to the findings, the following conclusions were drawn;

1. Background characteristics; Although marijuana users may be found in all social categories, the most typical marijuana user in Florida High schools tend to be a white male who lives in an urban or suburban area. He is more often than not, the son of a well educated reasonably affluent parents. This profile supports the view that marijuana use is increasingly becoming a middle class phenomenon.

2. Social alienation; The difference between users and non users is reflected in their attitudes towards the police. Two thirds of the users object to more punitive police practices as compared to 41% of the non users.

3. Broad Social Concern; Although marijuana users do express somewhat more sympathetic racial views, they are clearly more distinguishable from non users in their concern with youth related issues. For example, they favour legitimization of marijuana, more lenient drug laws, lower drinking age, legalised abortion and sex education in the public schools.

4. Interaction Patterns; Marijuana users form a kind of sub community in which there is a convergence of values. The ability to predict one attitude from another is at least twice as great among users than it is among non users.

2.7 HYPOTHESES AND OPERATIONALISATION OF CONCEPTS

1. Hypothesis One: **The social position of a student has an effect on his/her eventual use or non use of drugs.**

Alternative Hypothesis: There is no relationship between social position and non use of drugs by college students.

Dependant Variable - Drug use:- This will refer to the self administration of drugs, for non-medical purposes. Subsequently, a drug user will be defined as any person who has used at least one type of drug in the preceding one month, and who also would not be using the drug(s) for the first time. On the contrary non-drug users will be distinguished as those persons who will not have used any type of drug in the past one month.

Independent Variable - Social position:- In our case, social position will be differentiated by the occupational and educational positions held by the parents of our respondents.

In respect to occupation and education, social position will therefore refer to the status of the respondent's family as will be reflected by the occupational and educational positions of both their parents.

2. Hypothesis Two: **Drug using students are likely to have taken up the habit in the process of interaction with drug using peers.**

Alternative Hypothesis: Peer association does not have any effect on the use or non use of drugs.

Dependant Variable - Drug Use

Independent Variable - Peer Group:- The peer group refers to a close intimate group whose members share a common status or a set of characteristics (Neubeck 1974, 411).[68] Hence, in our case it will simply refer to the close friends whom our respondents interact with.

3. Hypothesis Three: **Commitment to religion is negatively related to drug use, among college students.**

Alternative Hypothesis: There is no relationship between college students commitment to religion and use or non use of drugs.

Dependant Variable: Drug Use

Independent Variable: Commitment to religion. This will refer to the extent to which one devotes his time and energy to religious undertakings, and also the degree of belief one holds about religious virtues. Attendance to church and the belief in the importance of religion for a person, will be the yardstick.

4. Hypothesis Four: It is likely that students who use drugs are less committed to education, than non-drug users.

Alternative Hypothesis: There is no difference among college drug using and non drug using student's commitment to education.

Dependant Variable: Drug Use

Independent variable: Commitment to education. It will refer to the extent to which one devotes his time and energy to educational pursuits. The measuring yardsticks will be the different grades received by the respondents in college, their ambition to pursue further education after college and the time they commit on education each day.

5.Hypothesis Five: There is a negative association between drug use and an appropriate parental supervision.

Alternative hypothesis: There is no relationship between use or non use of drugs among college students and parental supervision.

Dependant Variable: Drug Use

Independent variable: Parental supervision. From our respondents perception, parental supervision will refer to the extent they think their parents supervise and advise them appropriately on various issues. Also this will give us a hint of the extent to which our respondents are attached to their parents.

6. Hypothesis Six: **Students who use drugs are also more likely to be those who experience some relatively high measure of socio-economic related stress.**

Alternative Hypothesis: There is no difference in the extent of stress among college students who use and who do not use drugs.

Dependant Variable: Drug Use

Independent variable: Socio economic stress. Stress refers to the pressures and strains an individual perceives as a result of certain external factors. These external factors, bringing about stress, will be in our case, socio-economic related ones. For example, stress arising from ambiguities about getting jobs, ambiguities about the relevance of education and financial difficulties.

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CHAPTER THREE

3.0 THEORETICAL FRAMEWORK

The main theoretical inspiration to this study of social factors associated with drug use, is derived from the social learning and the social bond theories. To a large extent, these theories have been the focus of research by numerous scholars of criminal behaviour. In accordance to the line of research based on these theories, the concepts of differential association , differential reinforcement, definition and imitation on one hand, and attachment , belief, commitment, and involvement on the other, are important to an understanding of criminal behaviour. With reference to this study, they are also important in understanding drug use as a form of deviant behaviour.

These concepts have constituted the prime analytical tools in this study of drug use among college students. Whereas previous researches based on these theories have dealt with the concepts separately, this exploratory study borrows concepts from the two theories to test hypotheses on selected factors. These include social position, peer relationship, religious commitment, parental supervision, stress and commitment to education. However, right from the beginning, the major assumption is that, in relative terms, peer relationship is the most important concept in understanding drug use, following the findings in the study by Johnston and Hahr(1987; 323-339)[1].

Drawing upon Sutherland and Cresseys' (1978, 81)[2] explanation that background variables may increase or decrease

the probability of encountering delinquent behaviour patterns, this study begins with the analysis of background variables. Although social position is considered a background variable, it is analysed separately as one of the major hypotheses marked for testing.

Underlying the notion behind background variables, including Social Economic Status (SES), is the explanation that socio-structural factors may possibly affect behaviour directly. Variables such as low SES may affect delinquency by increasing the probability of encountering delinquent patterns in low class areas (Sutherland and Cressey, 1978, 81)[3]. This study further draws upon a study in Kenya by Muga(1975)[4], on crime and delinquency, which examines the association between delinquency and background variables such as the juveniles' religious background, parental background, type of family among others.

However, caution is taken over the possibility that background variables may gloss over the fact that for example, members of the same social class frequently vary significantly in terms of their behaviour patterns and members of different social class background often exhibit very different patterns of substance use (Yambo and Acuda, 1983, 5)[5]. Invariably, this leads us to the analysis based on behavioral notions, of social learning and social bond theories.

Concepts based on the social learning theory have been utilized with reference to testing peer relationship, parental supervision, and social position, against drug use. The theory holds the view that individuals learn the evaluative definitions of a behaviour from peers and parents among other sources,

through interaction. Drawing from this, the study explores the kind of attitude college students have received from their close friends, in relation to drug use. In line with this, Haji's (1985, 1)[6] hypothesis that the easy unrestrained association between khat users, abusers and non - users and the easy availability of khat promotes its widespread acceptance and use, provides an essential parallel.

Similarly, from the point of view of the social learning theory, social position and parental supervision have a way of influencing the attitudes of the parents' offspring, towards drug use. Nonetheless, the social bond theory views parental supervision as an indicator of attachment to parents and as discouraging a person from committing delinquent acts. With reference to our study therefore, a greater attachment to parents dissuades a person from committing delinquent acts.

Following the same line of thought, commitment to religion and or education can explain drug use. Commitment to conventional activities dissuades persons from engaging in delinquency, because when considering delinquent behaviour, a person who has spent time and energy in the activity, such as education, calculates the risk of losing the investment (Johnson and Hahr; 1987)[7]

Notes and References

1 Johnson and Hahr, The Role of Peers in The Complex Etiology of Drug Use, Criminology, Vol. 25, No. 2, 1987. pp.323-339.

2 Sutherland,E.H and Cressey,D.R., Criminology, Philadelphia, Lippincot, 1978, p.81.

3. Ibid. p.81

4. Muga, Erasto, Crime and Delinquency in Kenya, East Africa Literature Bureau, Nairobi, 1975.

5. Yambo, M. and Acuda, Epidemiology of drug use and abuse, University of Nairobi, 1983, p.5.

6. Haji, Asha, The Socio-economic Factors Related to Khat Use and Abuse in Garissa, University of Nairobi, Sociology Department, 1985, p.1.

7. Johnson and Hahr op. cit. pp.323-339.

CHAPTER FOUR

4.0 METHODS OF DATA COLLECTION AND ANALYSIS

4.1 TIME FRAME

The entire data for this study was collected in Nairobi, during the period starting from 12th December 1990 to 7th March 1991. Data collection had to take this long because we had to keep up with the schedule for each college. For example all colleges closed for the December holiday, and third year students of the University of Nairobi did not resume until 11th February 1991.

4.2 SITE DESCRIPTION

All colleges from which data for this study was collected, are situated in Nairobi. Nairobi holds the status of a district and a province at the same time. Besides, it is the capital city of the Republic of Kenya. Its zone of influence extends far beyond its national border, making the commercial, financial, manufacturing, communications and tourist hub of Eastern Africa. For this reason, the city stands out, as the most distinct in the country. For example out of the present four national Universities, two are situated in the city. In fact these two Universities - University of Nairobi and Kenyatta University - were the first Universities to be established in the republic.

If we were to combine the total student population of these two Universities, we would come up with a figure that exceeds more than half the total University student population in the republic.

At present, the city of Nairobi is estimated to have more than two million inhabitants, according to recent estimates by the Nairobi city commission chairman, Fred Gumo, (Daily Nation, 25th September, 1990).[1] The capital city is now the largest administrative and political centre, and the more centrally placed for communication with other towns (Moss; 1988; VII).[2]

4.3 SAMPLE FRAME

Nairobi has many colleges and Universities, both public and private. For this study, data was collected from public colleges and Universities only, because their selection procedure takes students from all over the republic, and from extremely different backgrounds. At the end of the data collection, seven colleges and Universities were included in the sample frame. These are: (1).University of Nairobi, (2).Kenyatta University, (3).Kenya Polytechnic, (4).Medical Training Centre, (5).Kenya Science Teachers College (KSTC), (6).Kenya Technical Teachers College (K.T.T.C) and (7).Utalii College.

Given the small number of public colleges and Universities in the city, the study aimed to include as many of these, as possible, in its sample frame.

4.4 SURVEY SAMPLE

According to Fink (1985; 16)[3] the survey sample refers to the number of people in the survey. Thus the survey sample for this study was 182. The predetermined figure was 200, but because some questionnaires got spoilt, misplaced, while some were borrowed by students and sometimes lecturers and administrators, we could not reach the targeted figure, 200. Nevertheless, we tried to conduct a number of interviews, that was an equal proportion of the total number of students in each college or University. On account of this, the institute with the largest enrolment gave a larger sample, while one with smallest enrolment, gave a proportionately smaller sample. For each college, the following chart, based on figures and estimates of enrolment from the statistical abstract (1989),[4] shows the total number of students, and the total sample interviewed.

Table 1; The survey sample

	College	Enrolment	No. of interviews
1.	Nairobi University	10,034	77
2.	Kenyatta University	6,414	49
3.	Kenya polytechnic	3,259	25
4.	Medical training centre	2,116	16
5.	K.S.T.C.	798	6
6.	K.T.T.C.	612	5
7.	Utalii college	517	4
	TOTAL	23,750	182 (sample size)

* Figures are estimates from 1989 figures.
Source: Statistical Abstract; 1989[5]

All interviews were conducted in one period of time. In this regard, the survey design is said to have been cross-sectional.

4.5 MODE OF DATA COLLECTION.

Data was obtained by use of structured questionnaires. This kind of data or information is qualitative in nature, and the appropriate measuring apparatus was the questionnaire. Questions were asked by interviewers, in face-to-face interviews, because we had to reckon with possible interviewer bias and other interviewer effects, we took a great deal of pains to cultivate adequate rapport with the respondents, and hence this enabled us to always explain the content of vague questions and the kind of answers expected. This allowed us to clarify the intent of the questions as far as possible, particularly on sensitive questions concerning drugs.

The questionnaires combined various types of questions, among them questions seeking opinion, preferences and facts for example, opinion about importance of religion, preference of further education to job, and facts about age, social status and so on. Closed questions were used in conjunction with open questions, throughout the questionnaire. Closed questions are easy to code and also clarify the intent of the question, for the respondent, while open questions have the advantage of allowing the respondent to convey his attitude without a feeling of confinement. Nevertheless, open questions gave problems in coding, and were often contradictory and incomprehensive.

Another mode of data collection employed by this study was the case study approach. This approach helped the study to supplement the "positive" methodology which usually restricts

the respondent from expressing his/her deep feelings and attitudes. In positive methodology, the respondent rarely explains himself thoroughly because of the methodology's tendency to pre-empt the causes of the problem. This problem is attributed to both open and closed types of questions. The closed questions restricted the respondent's responses to the pre-coded choices. On the other hand open questions were post coded, which amounted to summarizing the responses and therefore losing some quality of the original response in the process.

A case study, is referred to as a detailed examination of one individual, group, organization or society, in which a large number of processes, events and states are documented (Hage and Meeker; 1988; 73).[6] For this study, six individual students who had used one or more types of drugs in the previous one month, (two of these were female), made up our cases. No separate questionnaire was administered in this case study, rather the original questionnaire was used to guide the students' account of their life and drugs.

4.6 SAMPLING DESIGN AND SAMPLING PROCEDURE

In order to obtain the required proportion of drug using students for this study, the purposive sampling procedure was employed. This method has been employed successfully before, to gather data on marijuana users in a college by Ellis and Stone (1979;323-334).[7] The basic assumption behind purposive sampling is that with good judgement and appropriate strategy,

one can handpick the cases to be included and thus develop samples that are satisfactory in relation to one's needs (Kidder 1986;154).[8] The cases handpicked by the study were of drug using and non-drug using students. Hence, going by the study's operational definition, a drug user was any student who had used any drug in the past month, while a non-drug user was any student who had not used any drug in the past month.

However, in conjunction with purposive sampling, we also attempted to introduce a random selection in our sampling procedure. Theoretically, the best method to employ would have been to pick any student at random (simple random sampling) and then purposively picking the drug users out of this sample of students. However, this method would have required many questionnaires, more time and several research assistants, which amounts to more costs. Alternatively, we would have to come up with a list of drug users in all colleges, and from these we would randomly select the ones to include in the survey. However, this alternative method proved impossible when I tried it out in the first two days of data collection as I will explain later.

Eventually randomness was introduced to the purposive sampling procedure, by first making a list of drug users from randomly selected halls of residence, and secondly, selecting those who would be interviewed at random. This list of drug users was made by inquiring into the students' residence, and noting their room numbers. The room numbers together with the hall numbers were used as the identity for the students. Each student in each hall was therefore marked as either a drug user or a non-drug user, and hence given his/her identity.

To select the sample by random, each student was given a number, such that the list started from number one, two, and so on. Then those numbers were used for the random selection, where the random numbers in Blalock (1988; 601-2)[9] were utilized. With eyes closed, I picked a number from this page at random, and then selected all the other numbers on that column. These were my samples.

However this general method of data collection depended on the unique characteristics that prevailed in each University or college. Sometimes the method was favoured by circumstances, to a great extent, sometimes not. In this section I will therefore outline the problems I met in each college, and the solutions for them.

4.7 COLLEGE VISITS

4.7.1 University of Nairobi

Data collection started in this university simply because I am more conversant with this institution than the others. I started off, a few days before the students begun their vacation on the 14th of December, 1990. During this period of about three days, I experienced the field problems I expected to encounter later on, and consequently, I modified several aspects, among them how to develop rapport with my respondents and how to administer the questionnaire effectively and efficiently.

To begin with, I set out to try one of the two methods I had discussed with my supervisors. This was the method where I was

required to make a list of drug using students, from which I would select my sample randomly. Before I started, I had abandoned the other alternative method due to resource constraints (costs and time), as I have explained in the previous section. So the method I tried gave me several problems. First, it was an extremely sensitive subject, which most students avoided by all means. Moreover, most of the students left classes in quite a hurry, and as a result, I strongly felt that I missed a lot of drug using students from my 'small' list of drug users. I observed that actually the students hurried out of classes, perhaps because they were tired, strained or busy, although I could not dismiss the notion that some of them, particularly female students, deliberately avoided this research that would associate them with "drugs". This experience was sufficient to press me to seek a workable solution.

To counter this difficulty, I came up with the eventual method of data collection, I have explained in the previous section. This method worked well at the students residence. Its main advantage was that I was armed with the students particulars (name, faculty etc) yet I was using their room numbers for identification purposes, such that they felt comfortable that I did not care to know their names. This list of names for students in each hall are accessible from each hall, or from the administration (Students Welfare Association: S.W.A.)

In addition, I conducted interviews in the students rooms and I noticed that this situation provided a favourable environment for an interview. The students were very relaxed, and it was easy for me to develop a rapport. In their rooms, the

students were willing to spare a great deal of time for the interview, and occasionally, my only problem was to release myself from the interview that sometimes turned into a discussion. None of the students showed any hint of fear of discussing this daunted subject-drug use.

In the University of Nairobi, there are several campuses, each with several faculties. The main campus for example has the faculties of Arts, Engineering and Architecture Design and Development (A.D.D.), while Parklands campus has the faculty of law only. However, students from most of these faculties are housed in the main campus residence, although each of these campuses have their own residential halls as well.

All the same, samples were selected proportionately from each campus, and all halls of residence were included. This ensured that the samples included not only a proportionate number of female and male drug users, and non drug users, but also a proportionate number of students from each faculty. This is because students residents are arranged in such a way that females live apart from male students, and male students are allocated rooms in specific halls, such that particular halls house students from a particular faculty.

Certainly, this method did not escape all problems. For example, after I had collected a sufficient list of drug using and non drug using students, it was not possible to retrace all the sampled students. It took me some time to find some students in their rooms. Moreover, this list of drug users and non drug users did not include all students who were present on those particular days, although I was content that the list in all

cases represented more than 70% of the student population in each hall of residence. This was partially possible because each room accommodates two students, and I would ask the type of drug the sampled student uses.

Nairobi University was a major site of my research which gave me a lot of experience, and from which I collected a larger portion of my entire sample. I completed data collection in this institution sometimes in late January. My next assignment was in Kenyatta University.

4.7.2 Kenyatta University.

After gaining immense experience in Nairobi University, all I went through in Kenyatta University was a formality. In addition, I was much faster in my interviews. I could complete an interview in fifteen to twenty minutes time, unlike in Nairobi University where I would take twenty to thirty minutes per interview.

This institution follows an almost similar arrangement with Nairobi University, in its arrangement of the halls of residence. The only difference is that the halls of residence are quite far from each other, and they vary widely in size. However, halls of residence are differentiated by year of study, faculty and sex like in Nairobi University. By the end of February I had completed with this University.

4.7.3 K.S.T.C. and K.T.T.C.

In both these colleges, all the second year students were away on teaching practice, as is requisite of their syllabus. As a result, there were about 344 first year students in K.S.T.C., and about 300, in K.T.T.C. In both colleges the first year students had covered more than half of their academic calendar. Unfortunately for this research, these colleges had an inflexible regulation that forbids any visitors to enter the students hostels. For this reason our respondents had to be interviewed by someone who had access to the students hostels at all times - a fellow student. This arrangement to use a student was made possible by the personal effort of the Dean of students in K.S.T.C. and the Head of Department in K.T.T.C.

4.7.4 Medical Training College.

It took quite a long time for me to gain access to this college. For almost two weeks, I was running from one office to the other seeking permission to conduct research in the institution. It proved quite difficult to get the principal, and when I got him, I had to wait for a written reply which I received through post.

However when the interviewing started, I received immense cooperation from the administration and students. I completed all the interviews over one weekend. But I also faced an inflexible regulation that denied visitors, particularly men, access into

the women hostels. Consequently, I again employed the services of a female student who had access and knowledge of the area.

4.7.5 Utalii College.

I was over with this college in just one day, apparently because the college has few students and therefore I had a small number of respondents to interview. I also gained sufficient access to all the student respondents who were well too cooperative.

4.8 METHODS OF DATA ANALYSIS

This study utilized a computer package (the statistical package of the social sciences-S.P.S.S.) program, for the purposes of data analysis. This package is actually a fairly recent development and it has been refined several times, such that this study used the SPSS/PC+ version of the program. The program can perform all sorts of analysis ranging from univariate analysis to multivariate analysis among others. However, not all of these methods available in SPSS will be used.

Broadly, descriptive and inferential statistics will be used to a great extent. Descriptive statistics are those which summarize patterns in the responses of people in a sample (De Vaus 1986; 102).[10] They consist of measures that help researchers describe data. Good description is important because it is the basis for sound theory, and unless we have described something accurately and thoroughly, attempts to explain it will be

misplaced (De Vaus 1986; 2).[11]

Inferential statistics on the other hand, is an area of statistics in which conclusions about a large body of data are reached by examining only part of the data (Groebner; 1985; 3).[12] Thus a researcher may select a subset or sample, then based on findings from these sample, make inferences about the population. These statistics therefore provides a means for making inferences about a total group, based on observations from part of the total. The function of inferential statistics according to De Vaus (1986; 102)[13] is to provide an idea about whether the patterns described in the sample are likely to apply in the population from which the sample is drawn.

An example of the descriptive statistics that was used are the mean, mode, median and percentage, in univariate analysis. At this level of analysis no inferences will be made. However, at the bivariate analysis level, where crosstabulations will be extensively used, inferential statistics will also be used. Nevertheless, before discussing anything about this type of statistics, we should mention something about parametric and non parametric measures.

For the reason that I will discuss in this paragraph, the study used non parametric statistics in all its analysis. Miller (1986; 207)[14] indicated that in the development of modern statistical methods, the first techniques of inference that appeared were those that made many assumptions about the nature of the population from which the scores were drawn. Since population values are 'parameters' these statistical techniques are called parametric.

However, more recently, a large number of techniques of inference have been developed, that do not make stringent assumptions about parameters. These newer non parametric techniques are 'distribution free' (Miller; 1986; 207),[15] so that regardless of the shape of the population we conclude according to our results.

Moreover, in the computation of parametric tests, we add, divide, and multiply the scores from the samples. When this arithmetic processes are used on scores that are not truly numerical, they naturally introduce distortions in those data, and thus throw doubt on conclusions from the test. Thus it is permissible to use the parametric techniques only with scores that are truly numerical (Miller; 1986; 208).[16]

Non parametric tests include :

1.those tests that may be used when one wishes to determine whether a sample is from a specified sort of population for example the binomial test, Chi square (χ^2) one sample test, Kolmogrov-Smirnov one sample test etc

2. tests used when one wishes to compare the scores obtained from two samples for example Mc Nemar test, Fishers exact probability test etc,

3. significance tests for k (3 or more) samples, for example Cochran Q test and /χ^2 k independent samples test,

4. measures of association (Miller; 1986; 208).[17]

For bivariate analysis, therefore, the study utilized two way crosstabulations. In these cross-tabulations, the χ^2 k independent sample test was used to find out whether a

relationship existed between the two variables. Actually, crosstabulations are a way of displaying data so that we can fairly readily detect association between two variables (De Vaus 1986; 121),[18] and there are a large number of statistics available which provide concise summaries of this association. Chi square is one of such statistics.

4.8.1 Chi-Square

The advantage of χ^2 is not only that it is a non parametric measure, but also it can be used in variables whose level of measurement is nominal or above, and it can also be used in crosstabulations with more than two columns and rows crosstabulations are appropriate when the sample size is large. Chi square is calculated using either of the following alternative formulas

$$\chi^2 = \Sigma \frac{(fo-fe)^2}{fe} \qquad \chi^2 = \Sigma \sqrt{\frac{fo^2}{fe} - N}$$

fo represents the observed frequencies, from which the expected frequencies (fe) is calculated. Σ refers to the 'sum of', while, N equals the total sample size.

Chi square only tests the existence of association between two variables, whereas in this study the analysis went further than seeking the existence of association. The study sought to know the strength of the relationships that the χ^2 showed to be existing. There are many statistics that attempt to assess the strength of the relationship. This study used the contingency coefficient (C) to assess the strength of relationships in crosstabulations.

4.8.2 Contingency Coefficient.

The contingency coefficient, is a measure that is based on Chi square, and it is calculated using the following formula

$$C = \frac{\chi^2}{\chi^2 + N}$$

C becomes zero when the variables are independent. The upper limit, however, depends on the number of rows and columns. In the 2 x 2 case, the upper limit of C is .707. The upper limit of C in the table with k (3 or more) rows and /or columns, can be found using the formula (k-1) where k=r+c

4.8.3 P.R.E measures.

Alternatively, this study also used the proportional reduction of error (P.R.E) measures, which not only measure association, but are also more appealing and can help in prediction. These set of measures of association are available for situation where there is no underlying ordering in either of the two variables of classification. These measures are sometimes known as measure of proportional reduction in predictive error (Jolliffe; 1986;128).[19] Such measures include lambda and Goodman and Kruskals tau (t_a and t_b). This study preferred to use Goodman and Kruskals tau b (t_b) over lambda and other P.R.E. measures, because t_b is insensitive to extreme marginals (Blalock; 1989; 315)[20] in classification, and it is also appropriate for a nominal data (Blalock; 1989; 437).[21]. Moreover, t_b is more appealing as a measure of association

because it allowed us to make simple interpretation that are not possible in the case of other measures of association that are not P.R.E measures. Tau b(t_b) is calculated using the following formula:

$$t_b = \frac{\text{no. of errors not knowing A} - \text{no. of errors knowing A}}{\text{no. of errors not knowing A}}$$

In this case A represents variable in classification A, where there are also classification B. Here we have predicted the knowledge of knowing A classes. If we were to predict B classes, we would denote the comparable measure as t_a - Goodman and kruskals tau a. If in the above formula t_b had turned out to be .50, we would thus give the very simple and appealing interpretation that knowledge of A would cut the number of errors to a half; a value of .75 would mean reducing the number of errors to one-fourth of the original number and so forth (Blalock; 1989; 309)[22].

4.8.4 Tests for Reliability and Unidimensionality

Similarly, there are tests for exploring a set of factors from data collected. These statistical tests for example, test the extent to which a scale is unidimensional. A unidimensional scale is one in which each item measures the same underlying concept (De Vaus; 1986; 89)[23]. In this case the aim of this tests is to reveal those items that are suitable. Two statistical tests that can be used in this case include factor analysis and item analysis. Both measure unidimensionality.

Factor analysis is actually a procedure for investigating the possibility that a number of variables have a small number of factors in common. It seeks to isolate those common elements present in two or more variables. Therefore it has the ability of reducing the original set of explanatory variables to a smallest possible collection of factories without any significant loss of information. However, because factor analysis is a more complicated method, this study used item analysis to achieve the same purpose.

According to De Vaus item analysis is a test of unidimensionality and reliability (1986; 89-90)[24]. This test enable the researcher to select items that are reliable and unidimensional, and drop those which are not, from the scale. This is done by calculating the correlation coefficient (r) between people's score on the item, with their score on the rest of the scale. This r is called item-to-scale coefficient, and they range between 0-1. The higher it is, the more clearly the item belongs to the scale, As a rule of thumb, if it is less than .3, then the item is dropped from the scale. This is a test for unidimensionality.

A test for reliability is also conducted, to ensure that a reliable scale, and hence reliable items, are obtained. To test each item for reliability, the consistency of a person's response on an item is compared to each other scale item (item-to-item correlations). The index of this statistic- "Alpha" - ranges between 0 - 1. As a rule of thumb, Alpha should be at least 0.7. To increase alpha, drop all unreliable items.

This test for reliability is preferred to the test-retest method which requires yet another test for the item, and thus data collection to test the item.

4.9 POSSIBLE ERRORS OF THE STUDY.

According to Jollife, an error occurs whenever there is a difference between the true values of a quality and the value of it obtained in the survey (1986; 25)[25]. Although the main task of surveys is to obtain accurate respondent attributes, errors may not be avoided completely. For this reason, it is wise to be aware of possible errors in our observations and measurement of respondent attributes. Moreover, whenever we suspect errors, we have to find the best methods of countering them as far as possible. Errors in surveys may be one of the following two (a) Errors due to nonobservation and (b) measurement errors (Grooves; 1987; 157-172)[26].

4.9.1 Errors due to Non observation

These errors include coverage, sampling, non-response errors (Grooves; 1987;157-172)[27] and errors due to refusals, errors on sensitive topics and errors of memory (Jollife; 1986; 56-81)[28]. In this study perhaps the more challenging errors were those due to refusal, errors on sensitive topics, of memory and non response. Some of the respondents sampled in this study refused to participate in the survey for their own reasons. This problem was more disturbing in the initial stages of the survey.

However, because we had access to the particulars of our respondents (like their room numbers) we always came back to them later on. We gathered that some of the reasons our respondents had for refusing to participate, was that they were busy, and therefore did not have the time for a `long' interview. Nevertheless when we started off these interviews, time ceased to seem to be the reason for refusal. Perhaps they felt offended by the interviewers manner of approach, which we consistently reviewed, henceforth.

Errors on sensitive topics were a point to reckon with. Most respondents expressed some discomfort when we asked them about their use of drugs, their parents occupation and the grades they obtained in class. However, much effort has been done by the researcher to avoid this expected problem. Sensitive questions were mixed haphazardly with other insensitive questions. the remaining task was for the interviewer to ask them in a manner that aroused no feelings. Moreover the questions on drugs, especially the illegal and `undesired' drugs, were asked last.

It is my view that some respondents expressed errors of memory. Some questions required the respondent to think about things that happened a long time ago. For instance, respondents were asked to state the first time they used various drugs, and most scratched their heads trying to remember, how old they were at that time.

Non response errors are actually related to the errors just discussed. For example, a failure to contact some sample

members, amounts to non-response error, although it may be a result of refusal by the respondent to participate.

4.9.2 Measurement Errors

By far the most active field of research on survey quality concerns measurement error; the discrepancy between respondents attributes and their survey responses (Grooves 1987;157)[29]. For our purposes, measurement errors will be viewed as arising from the influence of the interviewer (interviewer effects), the weakness of the survey questions and mode of data collection (Grooves 1987; 159)[30].

In this study, interviewer effects was more distinct in the initial stages of the research. As a student in social survey, I was still learning how to build rapport with respondents. Nonetheless, I felt I had made tremendous improvement, and developed immense confidence that my manner of approach and interviewing, hence rapport, had improved a great deal after the first week of the research. Moreover, most of the respondents were outgoing and friendly.

The weakness of survey questions is said to give rise to social desirability effects (Grooves 1987;159)[31] in this respect the study sought to know the opinion of the respondents on the way their parents have supervised them and their sibling for example. Most respondents gave favourable opinions for this question that had been pre-coded. However, to reduce social desirability re-coding was done, thus reducing the codes from say five to three. It was observed that in regard to this question,

no respondent perceived that their parents supervision was ` very inappropriate'- the last/fifth code - which revealed social desirability

In some cases, it was observed that respondents failed to give appropriate answers to the questions due to the effect of question order, structure or wording. Although the interviewer attempted to clarify each problematic question for respondents, in order to avoid this error, it nevertheless persisted. At the same time it should be noted the scaling technique used by this study, similarly reduced the error. For each concept, there were multiple questions measuring it. In measuring `parental supervision' for example, there were six questions in total. However, there were many other questions which were clear and to the point as was evidenced by their facial validity. For example the question asking how many times do you attend church has facial validity.

In Grooves' category of errors (1987; 157-172)[32], errors emanating from the effects of the mode of data collection, are related to non response and coverage errors. These have been discussed in errors due to non-observation in the previous section.

Concerning measurement errors, Groves further explains that although the most active field of research or survey quality concerns them, there appears to be at least two reasons for the disproportionate attention to these errors;

(1) Statistical techniques have improved the capability of analysts to acknowledge some kinds of measurement errors, for example, the development of confirmatory factor analytic

techniques (This study used the alternative but simple item - analysis technique)

(2) in contrast to errors of non-observation, many measurement errors can be investigated using the available survey data themselves (without requiring outside sources)(1987; 159)[33]. For this reason, we were content that measurement errors were minimized, because we conducted item analysis for our concepts.

In the course of the research, it also became apparent that our figures for enrolment in Nairobi and Kenyatta Universities were probably grossly underestimated. The underlying problem was that actually, the two colleges were at their peak of their expansion programmes, and at the time this research took place, their enrolment could have been much higher. However, we also learned that the different groups of students were never in college, all at one given moment. They went for recess in turns. In sum, it was difficult to estimate the then population in the institutions, given these two complications.

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CHAPTER FIVE

5.0 BROAD PATTERNS OF DRUG USE

5.1 Introduction

However sufficiently we may try to explain the phenomena surrounding the use of drugs, it still remains a complex one, and varies widely according to a magnitude of factors. Consequently a discussion of drug use has to include the many characteristics of the study sample, and these have to be spelled out as accurately as possible. One thing that emerges from the discussion in the literature review (Chapter 2) is that different types of social groups differ in the type of drugs they use, essentially because of the differences in the availability and affordability across the groups. Perhaps then, college students feature some unique patterns and characteristics of drug use that may not prevail among other social groups. In this regard, this section will focus on some of the characteristics that may be unique among college students who use drugs. This section will attempt to explain the patterns of these characteristics which include age, sex, number of sibling and so forth. Not much emphasis will be laid on these variables, although some of them have actually been shown to be related to delinquency.

The use of drugs has been known to start at quite tender ages. In Kenya child drug use has been detected among children as young as eight years (Chemoiywa, 1990; 13),[1] though in extreme

cases children as young as three years have been known to take alcohol carelessly left within reach by adults. The first age at which a subject tries drugs, represents an important period for his life because he may sustain this behaviour, or abandon it altogether. In extreme cases where this behaviour is sustained, it may persist right into adulthood.

5.2 Age at first time of use

Table 2: Age at first time of use

Age at first time used (years	Type of drug				
	Cigarette	Alcohol	Khat	Cannabis	Tranq.
Never tried	67(37%)	29(17%)	127(71%)	140(79%)	161(91%)
>10yrs	16(9%)	19(11%)	5(3%)	4(2%)	1(1%)
11 to 14yrs	31(17%)	17(10%)	10(6%)	5(3%)	2(1%)
15 to 20yrs	60(33%)	86(50%)	30(17%)	26(15%)	5(3)
20+yrs	7(4%)	20(12%)	6(3%)	3(2%)	8(5%)
Col. total	181(100%)	171(100%)	178(100%)	178(101%)*	177(101%)*

a. Figures in parentheses represent column percentages
* Figures exceed 100% due to rounding
b. Column totals are less than 182 due to exclusion of inconsistent report pertaining to each type of drug.

In our case there was a larger number of respondents who so far as they could remember, have never tried any type of drugs. Whereas the largest number of respondents have never tried tranquilizers, only a smaller proportion has never tried alcohol. 91% of the respondents have never tried tranquilizers, while 17% have never tried alcohol. Perhaps it is worth noting that the drugs tried by most of the respondents in descending order are: alcohol, cigarettes, khat, cannabis then tranquilizers.

It is not quite surprising that alcohol has been tried by most respondents in our sample, because in the first place it is legally sold. In addition there are so many types of alcohol in our society, ranging from beer, whisky, wine to a variety of local beers. Our respondents indicated that local beers and alcohol like `chan'gaa', `Muratina', `miti', `busaa' and `karobo' are extremely popular particularly in the rural areas. A majority of these type of alcohol are legally sold while some like `chan'gaa' are illegal. Moreover some taste sweet and others bitter. But what actually explains alcohol's wide popularity is its availability and the fact that it is widely used in social gatherings and ceremonies. For this reason it is obvious that each one of us has encountered it. Restraint or use of this drug therefore entirely depends on an individual's disposition. It is likely that tranquilizers are least popular because unlike alcohol they are less available, and even little known by most people. Cigarettes which are second to alcohol in popularity are also sold legally.

Again the findings in table 2 show that for all types of drugs except tranquilizers, most respondents who have tried them, tried them first at between 15 and 20 years of age. For example, 50% of all the respondents first tried alcohol at this age, while 33% first tried cigarettes at this age too. In general, this age group represents the time when the youth is in her/his turbulent period- adolescent or teenage period. At this time the youth are known to seek an identity, and this, to add on to the fact that they are maturing rapidly, lands them into difficulties of all

sorts. During this period trials and temptations of drugs are common.

5.3 Extent of use of drugs

Table 3: How many times drug users use drugs

How many times do you use	Type of drug				
	Cigarette	Alcohol	Khat	Cannabis	Tranq.
Daily/packet	9(12%)	3(13%)	-	8(47%)	-
weekly/ 10	16(21%)	28(27%)	1(6%)	5(29%)	6(55%)
few times	31(41%)	51(50%)	10(59%)	3(18%)	4(36%)
once a mth	19(25%)	21(20%)	6(35%)	1(6%)	1(9%)
Col. total	75(99%)	103(100%)	17(100%)	17(100%)	11(98%)

a. Figures in parentheses represent column percentages
* Figures less than 100% due to rounding

Drug use is what leads into drug abuse. In this context, drug abuse shall refer to excessive use of drugs, in excess of a certain amount. If from the table above we were to distinguish drug abusers as those respondents who consume the above substance on a daily basis, then the findings indicate that 12% of the cigarette smokers, 3% of the alcohol drinkers and 47% of the cannabis users are drug abusers. In total, drug abusers represent 9% of all drug using respondents in our sample, according to the row total percentage. In regard to this, we also note that cannabis users were more likely to become abusers of the drug, than users of the other drugs. This definition of drug abuse therefore indicates that the most abused drug in descending order is cannabis, cigarettes then alcohol.

However the above definition may be said to be too restrictive. If we were to define the term a bit generously, to

include those who use the substance on weekly basis or ten cigarettes a day, then drug abusers could make a total of 33% of cigarette smokers, 30% of alcohol drinkers, 6% of khat users, 76% of cannabis users and 55% of tranquillizer users. And drug abusers would make 34% of the total drug using respondents. In this respect the most abused drug in descending order would be cannabis, tranquilizers, cigarettes, alcohol and khat. This definition may be preferred to the previous restrictive definition which diminishes the percentage of drug users, perhaps by excluding potential abusers.

Drug abusers in this case refers to the use of drug beyond a certain limit, for example, it is acceptable to use alcohol on a weekly or fortnightly basis. However daily use of alcohol goes beyond social drinking, and may be termed problem drinking.

5.4 Relative tolerance of drugs

To a large extent, drug users consider giving up drug use due to the awareness of the various consequences of drug use. It therefore appears unusual that despite their awareness of the social, physiological and psychological consequences of drug use, drug using goes on unabated. For example vigorous anti-drugs campaign such as those launched by alcoholics anonymous and the Ministry of Health (Warning on cigarette packets and advertisements) are common. It is highly unlikely that the message of such campaigns have not reached a wide population, particularly the educated. Respondents in our sample are all educated. Therefore the issue for us is whether such messages

bother drug users to the extent that they consider giving up drugs. Responses to our question varied from drug to drug (table 4).

Table 4: Intention to give up drugs by type of drug.

Can you give up?	Type of drug				
	Cigarette	Alcohol	Khat	Cannabis	Row total
Yes	57(81%)+	58(53%)-	10(71%)	3(33%)-	128(63%)
Undecided	5(7%)	1(1%)	-	-	6(3%)
Never thought	4(6%)	5(5%)	-	2(22%)	11(5%)
No	4(6%)-	45(41%)+	4(29%)	4(44%)+	57(28%)
Col. total	70(100%)	109(100%)	14(100%)	9(99%)*	202(99%)*

a. Figures in parentheses represent column percentages
* Figures less than 100% due to rounding
\+ Indicates overrepresented frequencies.

The table above gathered information on the willingness of the drug users to stop using the drugs. The findings indicated that there was a greater willingness among cigarette users and khat users to give up use of the drugs. Eighty one percent of the cigarette smokers and 71% of the khat users indicated that they would give up these drugs, and they comprise a larger proportion than the marginal frequency (63%) of the percentage of all drug users who wish to give up use.

On the other hand a larger percentage of alcohol and cannabis users reported `no' on intentions to give up use. Forty four percent of cannabis users and 41% of alcohol users reported that they are not willing to give up use. In our interviews we gathered that cannabis users believe in certain virtues that are related to the use of the substance. Among other things, most of them tended to associate themselves with the Ras Tafari movement

and reggae songs. Perhaps such intricate beliefs and associations are used by these users(some) to justify their continued use.

Concerning alcohol, we have suggested that it is largely used in social occasions (in parties, ceremonies, meetings and even meals). This has made it quite acceptable to the extent that to a large number of people it could be inconceivable for them to give up.

On the contrary cigarette users indicated a willingness to stop use. This may accrue to the many campaigns that have been launched, not only in Kenya, but also all over the world, to make the public aware of the consequences of cigarette smoking. A significant number of cigarette users are aware of this consequences and are willing to give up use as a result of this. Moreover smoking in public places has been banned, and this always reminds smokers that the general attitude towards smoking is negative. Perhaps these reasons largely account for the high percentage of cigarette smokers who wish to cease use.

Similarly, a large proportion of khat users expressed a desire to give up use. Khat is sold legally in Kenya, and although it is not yet quite popular in the countryside, its popularity is ever rising. However for the few respondents who use the drug ,it was difficult to explain why they wish to stop using it, although a few respondents expressed worry that it is associated with some health problems.

5.5 Reasons for use of drugs.

When asked why they use drugs, our drug using respondents gave a wide range of reasons. All these reasons were collapsed down to three broad categories which are: to `relax'; `socialize'; and reasons associated with `problems'.

Table 5: Reasons for use of drugs.

When do you use?	Type of Drug					
	Cigs.	Alcohol	Khat	Cannabis	Tranq.	Row Tot.
To relax	48(63%)+	26(29%)-	4(27%)-	5(38%)	1(13%)-	84(42)
To soc.	15(20%)+	6(7%)	-	1(8%)	-	22(11)
Problems	13(17%)-	57(64%)+	11(73%)+	7(54%)	7(88%)+	95(47)
Col.tot.	76(100%)	89(100%)	15(100%)	13(99%)*	8(101%)*	201(100)

a. Figures in parentheses represent column percentages
* Figures exceed or less than 100% due to rounding
\+ Indicates overrepresentation

Among the respondents who reported to use drugs when they feel like `relaxing', a larger percentage of them were cigarette smokers. Although 42% (row totals) of all respondents reported that they use drugs in order to `relax', 63% of the cigarette smokers reported that they smoke purposely to relax. These percentages of cigarette users reflect an overrepresented frequency when compared with the row percentage of 42%. A great deal of these respondents explained that they usually feel like smoking after meals, immediately after waking up and just before they go to sleep. At this moments when the urge to smoke is great, they reported that it is also the moment when they want to relax and smoking relaxes them, or perhaps relaxes their

nerves. The other type of drugs were used to a smaller extent, for relaxing purposes.

Eleven percent of drug using respondents reported that they use the drugs for `social' purposes. A large percentage of these were cigarette users. They represented 20% of all cigarette users, but compared to the row percentage of 11% they represent a significant proportion of drug using respondents who use drugs for social purposes. These respondents normally smoke together with their peers. Thus if a friend lights a cigarette, it is normal for his peers to smoke it too. They say that a cigarette goes round a `chain'. This kind of behaviour that emerges among peers, particularly those with financial constraints, tend to smoke more when with friends. Similarly alcohol users who use alcohol for this purpose, prefer to drink in the company of friends. The peer company, in such cases, tends to be associated with the use of these drugs. Lastly there are a number of respondents who confessed that they use drugs because of some sort of problems they perceive to face. Such respondents use these drugs almost anytime. Forty seven percent of all drug users fall in this category. However a large proportion of alcohol and khat users and to some extent cannabis users, reported to use these drugs because of problems. The 73% of khat users who chew khat, because of perceived problems, indicated that they chewed khat so as to forget their problems. Sometimes chewing khat sends them meditating. The 64% alcohol users reported how they feel like drinking when they experience some sort of stress. Some said that after every examination paper they have to go for a drinking spree. Tranquillizer users on their part said that they take the

drug (particularly piriton) when they need to gather sleep fast. Most of these drug users also admitted that whenever they feel bored and/or lonely, they use the drugs. Somehow the drug is used as a solution to boredom and a relief to some kind of pressure (academic or sometimes pressure arising from family relationships).

In a bid to supplement this understanding for motivations for use of these drugs, we specifically asked cigarette users to give reasons as to why they smoke. We selected cigarettes purposely because it is sold legally and our respondents are full aware of the health consequences of smoking. Moreover, the campaign against smoking is more vigorous and wide.

Table 6: Reasons for using cigarettes.

Why do you smoke?	Cigarette users
Habit	24(32%)+
Relieve stress	14(19%)+
Don't know	17(23%)
For the sake of it	19(26%)
Col. total	74(100%)

a Figures in parenthesis represents column percentages

A larger percentage of the cigarette smokers reported that they smoke out of habit. Thirty two percent of the cigarette smoking respondents gave this reason. These respondents were either psychologically or physiologically driven to smoke. Because some found it difficulty to explain this habit and how

it was then deeply entrenched in them, they expressed surprise that in the first place, they had never asked themselves why they smoke! However, they strongly felt that smoking had almost become part of their behaviour.

Those who reported that they smoke to relieve stress or pressure made up 19% of the total cigarette using respondents. For these respondents smoking tends to strengthen their nerves. They feel quite relaxed after smoking. Because of this effect, smoking comes in handy when they feel strained.

Some respondents found it difficult to give a reason as to why they smoke. This group comprised 23% of the total cigarette users. They reported that they do not know why they smoke, because they just find themselves smoking. However, some of these respondents explain that it is 'situations' that demanded them to smoke. They said that whenever they are in a peer company with smokers, they smoke too. In such a case it is the peer situation or perhaps peer pressure that makes them smoke.

Other respondents indicated that they smoke for fun, for pleasure and also for the sake of it. There are those who explained that though they do not consider themselves as smokers, every time they drink beer, they smoke too. Some explained that although they did not smoke regularly, sometimes when they do not have anything to do, they 'smoke for the fun of it'. These respondents certainly represent a type of cigarette smokers who can easily restrain themselves.

If the use of drugs is considered a behaviour that goes against conventional behaviour, then parents are expected to be against it. In this respect it is necessary to highlight the

extent to which parents are aware of their children's use of drugs (table 7) and how they react to this (table 8).

5.6 Parents' awareness of their children's use of drugs

Table 7: Parents' awareness of drug use.

Do your Parents know you use?	Type of Drug					
	Cigarette	Alcohol	Khat	Cannabis	Tranq.	Row Tot.
Yes	37(53%)	63(59%)	6(35%)	3(21%)-	2(22%)-	111(51)
No	33(47%)	43(41%)	11(65%)	11(79%)+	7(78%)+	105(49)
Col. tot.	70(100%)	106(100%)	17(100%)	14(100%)	9(100%)	216(100)

a. Figures in parentheses represent column percentages
\+ Indicates overrepresented frequencies.

Many respondents reported that their parents were aware that they use drugs, according to our findings in table 6. However, a larger percentage of alcohol and cigarette users reported that their parents know that they use the respective drugs. According to the marginal percentages, whereas 51% of the drug using respondents' parents know that they use drugs, 59% of alcohol users and 53% of cigarette users reported that their parents are aware of their use of these drugs. Perhaps this may be explained by the fact that cigarettes and alcohol are legally sold drugs and because our respondents were all above 20 years old, so long as they can assert their independence from their parents, they can use cigarettes and alcohol freely. Some parents may not be happy to see their children smoke, but if they are `old enough' to smoke and drink alcohol, these parents are bound to `let it be like that'.

Of those respondents whose parents are not yet aware that they use drugs, a larger percentage of them use khat, cannabis and tranquilizers. Users of cannabis have sufficient reason to hide their use of this drug. Cannabis is by law a prohibited drug, and it is illegally consumed as an un medicinal preparation, which can easily be distinguished. Unfortunately, for the users, some of the effects of cannabis, namely 'red eyes' and increased appetite can be noticed particularly by a close acquaintance or even parents. Cannabis using respondents whose parents know that they use cannabis, reported that it is because of these effects that their parents knew.

Tranquilizers in the form of tablets (for example piritons) can easily be consumed without the parents noticing, or the users may feign sickness, to justify use. On the other hand, khat which requires chewing over long hours, can only be used without parents awareness, if it is chewed far from their presence. Hence it is those respondents who chew irregularly, that reported that their parents were not aware of their using of khat. This group made up 65% of the khat chewers.

5.7 Parents' reaction to their childrens drug use.

Table 8: Parents' reaction to drug use, by drug type.

Parents reaction	Type of Drug					
	Cigarette	Alcohol	Khat	Cannabis	Tranq.	Row Tot.
Favourable	1(3%)	1(17%)	1(17%)	-	2(100%)+	15(13)
Don't show	10(25%)	17(27%)	-	2(50%)	-	29(25)
Ambivalent	5(13%)	3(5%)	-	-	-	8(7)
Unfavourable	24(60%)	33(52%)	5(83%)+	2(50%)	-	64(55)
Col.total	40(100%)*	64(101%)*	6(100%)	4(100%)	2(100%)	116(100)

. Figures in parenthesis represent column percentages
*. Figures exceed 100% due to rounding
+ Indicates overrepresented frequencies.

Parent's who become aware of their childrens use of drugs, are expected to react or respond to this, in one way or the other. In this respect we asked our respondents about their parents' reaction towards their use of drugs, and the reports indicated that the reaction ranged from favourable to unfavourable (table 8). According to findings, a larger percentage gave unfavourable reaction (55% according to the row total percentage). Furthermore, more khat users (83%) reported that their parents were not in favour of their using khat, than users of other drugs. Nevertheless these respondents explained that their parents were strictly against their use of the drugs, and they simply requested them to stop use.

However it is not easy for a parent to demand that a young adult, in this case a college going student, should stop using drugs and expect him/her to abide fully. For this reason some parent's showed slight discomfort, but allowed the respondents to use drugs if they so wish, and so long as they can afford it!

A considerable number of these parents had initially shown concern of their children using drugs but after giving up their disfavour, they remained ambivalent. Such parents were reported by 7% of the drug users, and a majority of these were cigarette using respondents.

Similarly there were those parents who simply did not indicate any position, about their childrens use of drugs. These parents certainly did not favour use, although they did not express concern either. Therefore it is likely that for cannabis users, their parents did not expect their reprimand to yield any results. However it is difficult to know why some parents of cigarette and alcohol users failed to show any reaction. Perhaps they expect their children to be responsible enough, once they are old enough to take care of themselves.

Some parents, comprising 13% of the drug using respondents, reacted in a manner that indicated that they did not mind their children using drugs. Those who allowed their children to take alcohol hold the opinion that it is socially acceptable to take alcohol, especially for men. Some of these parents went as far as introducing their children to alcohol use. The two respondents whose parents favour their use of tranquilizers (sleeping pills) reported that they were also introduced to them by their parents. Apparently, we gathered that in all these cases, the parents use the respective type of drugs too.

5.8 Distribution by age.

Our sample was made up of students as young as 19 years old, and as old as 29 years (table 9). Generally this represents the range of age of college going youth, and very few extreme cases would be expected. This study confined its exploration to this specific age groups whose understanding requires an entirely different approach from that of other age groups. In addition their scholastic status may generate a different attitude and perception towards drugs, unlike other social groups. As a result some of the characteristics pertaining to them may be unique.

Table 9: Distribution of drug users and non drug users by age.

Use/ Non-use	Age (Years)						
	> 20	21	22	23	24	25	Row tot.
Drug users	21(60%)	18(67%)	31(70%)+	21(70%)+	11(58%)-	16(59%)-	118(65%)
Non	14(40%)	9(33%)	13(30%)-	9(30%)-	8(42%)+	11(41%)+	64(35%)
Tot.	35(100%)	27(100%)	44(100%)	30(100%)	19(100%)	27(100%)	182(100%)

a. Figures in parenthesis represent column percentages
b. Chi square not significant (χ^2 = 2.12 C=0.11)

According to table 9, the findings indicated that there was a slight overrepresentation of drug users, in the 22 and 23 years old brackets in relation to the marginal percentages. Although there was a proportion of 65% drug users in the sample, 70% of the 22 and 70% of the 23 years old respondents were drug users. Corresponding to this the findings also indicate that in this age brackets non drug users were slightly under represented. There

were 30% non drug using respondents in these age brackets made up 30% of the respondents in this age brackets whereas in the total sample non drug users make up 35% of the total respondents.

In addition the findings show that in the extreme age brackets, that is, below 20 years on one hand, and above 24 years age brackets on the other, non drug users are slightly overrepresented. Hence in the less than 20 years age bracket, non drug users make up 40% of the total respondents which is well above the marginal total percentage of 35%. And in the 24 years age bracket, non drug users are 41% of the total respondents, while for 25 years and above bracket, they make up 42% of the total. Corresponding to these findings, drug users are slightly underrepresented in these age brackets where non drug users are overrepresented.

These findings depict an emerging pattern where drug users are slightly more likely to be in the 22 and 23 years age brackets. At the same time, these happen to be the most represented ages (the mode). However this emerging pattern is not a statistically significant association. The contingent coefficient indicates how weak this association is (C=.11)

We stretched our analysis of distribution by age, to distribution according to the type of drug used, for drug users. The findings presented in table 10, suggested that there was a slight tendency of the drug using respondents in the less than

Table 10: Distribution of drug users by age and by drug type.

Type of drug	Age (Years)						
	> 20	21	22	23	24	25	Row tot.
Cigs.	13(38%)+	12(38%)	19(32%)	15(37%)	6(30%)	10(32%)	75(35%)
Alc.	19(56%)+	15(47%)	29(49%)	17(41%)	9(45%)	11(35%)-	100(46%)
Khat	2(6%)	2(6%)	4(7%)	3(7%)	1(5%)	4(13%)+	16(7%)
Can.	-	3(9%)	2(4%)	4(10%)	3(15%)+	3(10%)	15(7%)
Tranq.	-	-	5(8%)	2(5%)	1(3%)	3(10%)+	11(5%)
Total	34(100%)	32(100%)	59(100%)	41(100%)	20(100%)	31(100%)[b]	217(100%).

a. Figures in parenthesis represent column percentages
b. Figure exceeds sample size of drug users (118) due to polydrug use
\+ Indicate overrepresentation
\- Indicates underrepresentation

20 years age brackets to use cigarettes and alcohol more than respondents in the other age groups. For example the findings indicate that alcohol users are slightly overrepresented among the drug using respondents in the less than 20 years age bracket. Fifty six percent of these respondents are alcohol users yet alcohol users make up 46% of the total respondents in the sample. Similarly in this same age group, 38% of the respondents are cigarette smokers, yet cigarette smokers make up 35% of all drug using respondents. Furthermore in this age group none of the respondents was reported to be using cannabis or tranquilizers.

This tendency corresponds to the finding that shows that alcohol users are underrepresented in the 24 and 25+ age brackets, while users of other drugs particularly cannabis, are overrepresented in this age brackets. For example, although cannabis users make up 7% of all the drug users, in the 24 years old age group, they make up 15% of these respondents.

All in all, the tendency is for users of khat cannabis and tranquilizers to be more likely to belong in the 24 and 25+ years age bracket while users of alcohol and cigarettes end to be more represented in the less than 20 and 21 years age brackets.

5.9 Distribution by sex.

Table 11: Distribution by drug users and non drug users by sex.

Use/Non-use of drugs	Sex		
	Male	Female	Row total
Drug users	99(77%)+	19(36%)	118(65%)
Non users of drugs	30(23%)-	34(64%)	64(35%)
Col. total	129(100%)	53(100%)	182(100%)

a. Figures in parentheses represent column percentages
+ Indicates overrepresented frequencies.
- Indicates underrepresentation.
χ^2 = 27.56 at 1 df 0.05>p>0.25
tau C = 0.15 C=.36

In our sample the findings indicated that 77% of the male respondents were users of drugs. According to the marginal total, 65% of the respondents were users of drugs, hence the 77% male respondents who use drugs, represent an overrepresentation of drug users. Meanwhile females are underrepresented among drug users. There are only 36% of female drug using respondents.

On the other hand, females are more likely to be non drug users. This is because there is a significant overrepresentation of non drug users among female respondents in the sample. Indeed the 64 % females who do not use drugs, exceeds the percentage of non-drug users (35%) in the entire sample.

In conclusion there is a considerable tendency of drug users to be more males than females in our sample. Furthermore the chi-square is statistically significant, indicating that the association between sex and use or non use of drugs exists. In addition the chi square indicates that this association is moderately strong.And according to the tau b, we may conclude that the knowledge of the sex of the student is able to reduce the number of errors of prediction of drug use by 15%.

This finding on sex is quite consistent with previous studies on drug use and on expected sex characteristics, For example Haji concluded that khat chewing is male dominated (1985; 68)[2] while Yambo also concluded that most drugs examined in the study (except tranquilizers) were male dominated (1983; 49)[3]. In our society the use of drugs has for long been associated with males. Even though females are increasingly using drugs of all sorts, it still seems like male dominance prevails. For example, general observation still reveals that men frequent bars often than females. Some of the female respondents who reported that they use alcohol, and cigarettes emphasized that they use these drugs (particularly cigarettes) in relatively private places. Some smoke in their rooms in college and some only in drinking (alcohol) places. This expresses the point of how they associate smoking with masculinity, hence they cannot go out smoking openly, the way men do.

Table 12: Distribution of drug users by sex and by drug type.

Drug Type	Sex		
	Male	Female	Row total
Cigarettes	69(36%)	6(23%)	75(34%)
Alcohol	86(45%)	16(62%)+	102(47%)
Khat	16(8%)	-	16(7%)
Cannabis	15(8%)	-	15(7%)
Tranq.	7(4%) -	4(15%)	11(15%)
Col. total	193(100%)	26(100%)	219(100%)

a. Figures in parentheses represent column percentages
* Figures exceed total number of drug users (male female and total) due to polydrug use.

Table 12 shows the percentage of respondents by sex and by the type of drugs they use. The table explores the drugs in which a particular sex is probably overrepresented, or the drug that the sex is more likely to use. First the findings shows that male respondents are represented in all types of drugs, while no female reported using either cannabis or khat. However we can only conclude that female respondents are less likely to use khat and cannabis.

Secondly, female drug users are more likely to use alcohol than other drugs. Sixty two percent of the female drug users use alcohol in our sample.In relation to the row marginal total percentage (47%) this percentage indicates an overrepresentation of female alcohol users.

Lastly drug using males are underrepresented among the respondents who use tranquilizers. Only 4% of the drug using males use tranquilizers while actually 15% of the total drug users use tranquilizers. Hence we may conclude that the

proportion of drug using female respondents who use tranquilizers, is more than the proportion of male drug using respondents who use the same. Yambo (1968;15)[4] similarly found that tranquilizers were principally used by females and thus he concluded that tranquilizers were `female oriented'.

5.10 Distribution By religion

Table 13: Distribution of drug users and non drug users by religion.

Use/Non Use of drugs	Religion					
	Catholic	Protest.	Muslim	Others	None	Row tot.
Drug users	38(64%)	60(62%)	4(50%)-	_	16(100%)+	118(65%)
Non drug users	21(36%)	37(38%)	4(50%)+	2(100%)+	_	64(35%)
Col.tot.	59(100%)	97(100%)	8(100%)	2(100%)	16(100%)	182(100%)

a. Figures in parenthesis represent column percentages
+ Indicates overrepresentation

Most of the respondents in our sample reported to belong to christian churches. Those who were categorized under `other' in fact belong to the `Bahai' and `Akorino' groups.

The findings in table 13 show interesting tendencies among respondents who belong to Islam and those who were non religious. All those respondents who do not belong to any religion indicated they use one drug or another. Not a single one of those respondents was a non user of drugs. Included in this group were five respondents who claimed they were `Ras Tafarians' but because their report was contradictory, and did not indicate that they belonged and were committed to any religious group whatsoever, we preferred to leave them under the non religious

bracket. Nevertheless, according to the findings 'non-religious' students are much more likely to be users of drugs.

In our sample, very few respondents reported to belong to the muslim or 'other' religious groups. Their numbers were too small for a reasonable analysis to be made. Meanwhile we further looked at the distribution by religion and by drug type.

Table 14: Distribution of drug users by religion and drug type.

Religion	Type of drug					
	Cig.	Alcohol	Khat	Cannabis	Tranq.	Row.tot.
Catholic	22(29%)	37(37%)+	5(31%)	4(27%)	4(36%)	38(32)
Protestant	36(48%)	49(49%)	4(25%)-	4(27%)-	7(64%)	+60(51)
Muslim	4(5%)	-	3(19%)+	-	-	4(3)
No relig.	13(17%)	15(14%)	4(25%)+	7(47%)+	-	16(14)
Col.tot.	75(100%)	101(100%)	16(100%)	15(100%)	11(100%)	118(100%)

a. Figures in parentheses represent column percentages
\+ Indicates overrepresented frequencies.
\- Indicates underrepresentation

Table 14 shows the respondents religion and the type of drugs they use. Then these findings are further compared by the frequencies for drug users' religions. The findings indicate that a large percentage of catholic respondents use alcohol, than is expected from the marginal total. Although the marginal total shows that 32% of the drug users were catholics, 37% of the respondents who use alcohol were catholics. This leads to the conclusion that catholic drug using respondents are slightly more likely to use alcohol.

Protestants on their part are slightly overrepresented among respondents who use tranquilizers and significantly

underrepresented among those who use khat and cannabis. Sixty four percent of tranquillizer users are protestants, yet protestants make up 51% of the drug users in the sample. On the contrary, among the khat users and cannabis users, protestants make up 25% and 27% respectively. These findings suggest that while protestants are proportionately more likely to use tranquilizers, they are also less likely to indulge in the use of cannabis and khat.

The more interesting figures are those of the `no religion' respondents. A significantly larger percentage of them make up the total of cannabis users. Among the group of cannabis users, they make up 47% of the total, and among the khat users they make up 25% of the total. Yet they are 14% of the total drug using respondents. This means that they (no religion respondents) are proportionately much more likely to use cannabis than any respondents from the other religious groups. They are also slightly more likely to use khat.

Though Muslim respondents were overrepresented among the khat users, their numbers is somewhat too small for statistical analysis. The tendency indicated by the figure, however, is for a proportionately larger number of them to be khat users. While Muslims make up 3% of the total drug users, among khat users they make up 19% of these respondents. Similarly none of the Muslim respondents use alcohol, cannabis, and tranquilizers. For alcohol, studies have indicated that the Islamic orientation which forbids the use of alcohol, may account for the non use of alcohol by Muslims (for example Yambo 1983;49[5] and Haji, 1985;85[6]).

5.11 Distribution by birth order.

Table 15: Distribution of drug users and non drug users by birth order

Use/Non Use of drug	Birth order						
	1st	2nd	3rd	4th	5th	6th	Row Tot.
Drug users	23(72%)+	22(65%)	19(66%)	20(56%)-	12(63%)	22(69%)	118(65%)
Non drug users	9(28%)-	12(35%)	10(34%)	16(44%)+	7(37)	10(31%)	64(35%)
Tot.	32(100%)	34(100%)	29(100%)	36(100%)	19(100%)	32(100%)	182(100%)

a. Figures in parenthesis represent column percentages
+ Indicates overrepresentation
- Indicates underrepresentation
Chi square not significant $\chi^2 = 2.80$; C=.11

Concerning our respondents birth order, there was a tendency for first born respondents to be more likely to be drug users than non drug users. The findings show that 72% of the first born respondents were drug users and 28% were non drug users. This indicates an overrepresentation of the first born among drug users, where the marginal percentage indicates that drug users are 65% of the total respondents. Similarly among the sixth and above birth orders, drug users are overrepresented too.

On the other hand, among the respondents who reported to be fourth born, non users of drugs were overrepresented but drug users underrepresented. These findings somewhat corresponds with the findings on the first born and sixth born. As a result we see an emerging tendency where a larger proportion of the first and sixth born are drug users while a smaller proportion of these are non drug users. This indicates that among the first born, and sixth born and above, there is likely to be larger representation

of drug users than non drug users. And among the fourth born, we are likely to find a slightly larger percentage of non drug user

5.12 Distribution by number of brothers.

Table 16: Number of brothers of users and non users of drugs.

Use/Non Use ofdrugs	Number of brothers						
	0-1	2	3	4	5	6+	Row Tot.
Drug users	16(76%)+	22(59%)-	28(67%)	31(65%)	13(59%)	8(67%)	118(65%)
Non drug users	5(24%)-	15(41%)+	14(33%)+	17(35%)+	9(41)	4(33%)	64(35%)
Tot.	21(100%)	37(100%)	42(100%)	48(100%)	22(100%)	12(100%)	182(100%)

a. Figures in parenthesis represent column percentages
+ Indicates overrepresentation
- Indicates underrepresentation

Table 16 shows that among all respondents who have one or two brothers, 76% of them were drug users while 24% were non drug users. Because our sample has 65% drug using respondents, the 76% drug users with one or no brother is a considerable overrepresentation. However this is about all we can say, because the frequencies on two and above brothers do not indicate any patten whatsoever, in respect to drug use and non drug use. The chi square statistic is not significant, suggesting that there is no relation between use or non use of drugs and the number of brothers.

5.13 Distribution by the number of sisters.

This study also considered the number of sisters our respondents had and the association of this towards drug use.

Table 17: The number of sisters.

Use/Non Use ofdrugs	Number of sister						
	0-1	2	3	4	5	6+	Row Tot
Drug users	20(80%)+	21(55%)-	27(63%)	23(74%)+	17(63%)	10(56%)	118(65%)
Non drug users	5(20%)-	17(45%)+	16(37%)+	8(26%)-	10(37)	8(44%)	64(35%)
Tot.	25(100%)	38(100%)	43(100%)	31(100%)	27(100%)	18(100%)	182(100%)

a. Figures in parenthesis represent column percentages
+ Indicates overrepresentation
- Indicates underrepresentation

Findings in this table (table 17) similarly shows that among the respondents with one or no sister, a larger percentage of them are drug users. Eighty percent of these are drug users yet the row total indicates that drug users are 65% of the total respondents. However for respondents with more than two sisters, it also becomes difficult to explain the pattern because the representation of either drug users or non drug users keeps fluctuating up and down. Nevertheless, the chi square is not significant and this confirms that there is no relationship between drug use and the number of sisters.

5.14 Distribution by number of siblings.

Table 18: The number of sibling of drug users and non drug users.

Use/Non Use of Drugs	No. of sibling				
	1-4	5-6	7-8	9+	Row total
Drug users	27(82%)+	35(56%)-	40(73%)+	16(50%)-	118(65%)
Non drug users	6(18%)-	27(44%)+	15(27%)-	16(50%)+	64(35)
Col. total	33(100%)	62(100%)	55(100%)	32(100%)	182(100%)

a. Figures in parenthesis represent column percentages
+ Indicates overrepresentation
- Indicates underrepresentation

In spite of our findings on the number of brothers and on the number of sisters failing to indicate any association with drug use, findings on the number of siblings (brothers and sisters) show that there is an association with drug use.

Table 18 shows that among respondents with between one and four brothers and sisters, drug users are overrepresented. In fact this overrepresentation is very significant indeed, because 82% of these respondents are drug users. With respondents who reported to have more than five siblings, there is a tendency for a large proportion of those to be non drug users. However we can not commit ourselves to this conclusion entirely, because among respondents with seven or eight siblings, drug users are overrepresented slightly. Overall, we may only conclude that drug using respondents were more likely to have few siblings (between one and four) than non drug users, in relative terms.

This table has yielded a significant chi square, thus indicating that an association between the number of sibling and drug use exists. However, these results demand an explanations as to why the number of brothers and the number of sisters on the other hand did not yield any statistical association. It is likely that what is important in the association with drug use is not the number of brothers and sisters per se, but the total number of sibling. This is because the dynamic interactions that go on in the family, hinge on the entire relationship between the respondents and their sibling. Whether a brother or sister, sibling are a unique focus of attention as objects to be modelled or to be contrasted what emerges out of this dynamic process may be a behaviour tending towards drug use or non drug use.

5.15 Distribution by family status.

Table 19: Family status of users and non users of drugs.

Use/Non use of drugs	Family status			
	Separated	Deceased	Living together	Row total
Drug users	8(80%)+	6(43%)-	104(66%)	118(65%)
Non drug users	2(20%)-	8(57%)+	54(34%)	64(35%)
Col. total	10(100%)	14(100%)	158(100%)	182(100%)

a. Figures in parenthesis represent column percentages
+ Indicates overrepresentation
- Indicates underrepresentation

A larger proportion of drug using respondents reported that their parents were living apart either as a result of divorce or separation. Out of the respondents whose parents live apart, drug users constitute 80% of them. This implies that it is more likely

that children of parents who live apart will be drug users than non drug users.

At the same time the findings indicated that non drug users were overrepresented among the respondents who reported that at least one of the parents was deceased. They represented 57% of these respondents, yet in the entire sample, they are 35% of the total.

Lastly, the findings showed that non drug using and drug using respondents were equally likely to be found in families where both parents live together. Because cases of parents living together constitute the majority of our sample, we are convinced to a great extent that this conclusion holds.

Notes and References

1. The report appears in the Sasa Magazine of September 1990.
2. Haji A. The Socio-economic factors related to Khat use and abuse in Garissa, University of Nairobi, Sociology Department, 1985 P. 68
3. Ibid P.49
4. Yambo, M and Acuda, Epidemiology of Drug Use and Abuse, University of Nairobi, Sociology Department, 1983, P.11
5. Ibid P.49
6. Haji op.cit. P.85

CHAPTER SIX

6.0 PRESENTATION OF FINDINGS ON DRUG USE AMONG COLLEGE STUDENTS

Hypothesis 1: **The social position of a student has an effect on the use or non use of drugs**

Following Hollingheads two factor index of social position- the occupational scale and the educational scale (Miller 1983, 303-308)[1]-this study utilized the two factors for the social position index. Separately, these factors were weighed against the use and non use of drugs among college students.

The occupational scale is premised upon the assumption that parents who belong to similar occupations will tend to have similar tastes and attitudes, and they will also tend to exhibit similar behaviour patterns. Drug use is one of these behaviour patterns that may be differentially exhibited by parents with different occupational positions. Ultimately according to this premise, these behaviour patterns would be adopted and therefore possessed by their children. If this is so, then eventually, children who use drugs are likely to have parents who share the same occupational positions.

6.0.2 The Occupational Scale

Concerning drug use and occupational scale, our study came up with the following findings:

Table 20: Father's occupation versus use of drugs.

Use/Non use of drugs	Father's occupation				
	Peasant/ self employed	semi- skilled	Business	Profess- ional	Row. Total
Drug users	46(64%)	20(63%)	27(69%)	17(68%)	110(65%)
Non drug users	26(36%)	12(37%)	12(31%)	8(32%)	58(35%)
Col. total	72(100%)	32(100%)	39(100%)	25(100%)*	168(100%)

a. Figures in parenthesis represent column percentages
b. $\chi^2 = 0.52$ not significant at $p = 0.025$, 3 df.
* Figure less than 182 due because of respondents without fathers respondents.

According to these findings, and in relative terms, almost as many drug using students as non drug using ones, reported to have parents in the occupations presented in the table. For example 64% of those respondents who reported that their father is a "peasant" or "self employed", were drug users. Yet considering the marginal percentages, (column total percentages), it is indicated that 65% of the respondents in the sample were drug users. As such, the 64% of the respondents whose parents were "peasants" or "self employed", represented about the expected proportion of drug users. Because of this, and also because in the other occupations, drug users are almost proportionally represented, it seems unlikely that the occupational position of the parent, varies according to the use of drugs in our sample.

Moreover, the results similarly show that non drug using respondents who reported to have fathers who are "peasants" or "self employed", accounted for (were) 36% of respondents with

fathers in this occupational group. This is consistent with the conclusion above, that it is proportionate to the total proportion of all respondents in the sample. The percentages of non drug users in the other occupational groups is similarly almost proportionate to the marginal percentage.

Lastly, the chi square statistic for the table indicates that the association between use or non use of drugs and their fathers occupation is not statistically significant (χ^2 = 0.52 at 3 df; p 0.25).

Table 21: Mother's occupation versus use of drugs.

Use/Non use ofdrugs	Mother's occupation					
	No occuptn.	Peasant	Semi skilled	Business	Profess- ional	Row. Total
Drug users	37(58%)	32(67%)	24(67%)	11(65%)	12(80%)+	116(64%)
Non drug users	27(42%)	16(33%)	12(33%)	6(35%)	3(20%)-	64(36%)
Col.tot.	64(100%)	48(100%)	36(100%)	17(100%)*	15(100%)	180(100%)

a. Figures in parenthesis represent column percentages
b. χ^2 = 2.99 not significant at p > 0.025, 4 df. C=·13
* Figure less than 182 due to non-response (respondents without mothers).
+ represents overrepresented frequencies
- represents underrepresented frequencies

The findings in the above table refer to the reports from our respondents on their mothers occupation. For all types of occupation except professional occupations, the percentage of drug users who reported to have mothers in those occupations is almost proportionate to the marginal percentage (column total percentage). For example, 58% of the respondents whose mothers

are not occupied are drug users. This percentage is almost an equal percentage to the percentage of drug users among our respondents which is 64%.

However among the respondents whose mothers are in professional occupations, drug users are clearly overrepresented where 80% of these are drug users. Perhaps all we can state from these findings is that drug users are more likely to have mothers who are professionally occupied

In spite of this, the chi square indicates that there is no association between our respondents `mother's' occupation and their use or non use of drugs (χ^2 = 3 not significant at p= 0.25, 4df).

In conclusion, it is apparent from these findings that the use of drugs does not seem to be associated with the occupation of their parents. The findings have indicated that in almost all occupations, there is a proportionate number of drug using and non drug using students.

6.0.3 Educational scale:

The educational scale, yet another indicator of social position, is also premised on the assumption that parents who belong to similar educational scale, will tend to exhibit similar tastes and attitudes, which will similarly obtain in their offspring. If this premise holds true in drug use, then offspring who have parents who belong to a similar educational level, should be either drug users or non drug users, depending on the specific attitudes and behaviours carried by the parents at each

educational level. Our findings on the respondents' 'fathers' education are presented below.

Table 22: Fathers' education versus use of drugs.

Use/Non use of drugs	Fathers education						
	No educ.	pri.	O-level	A-level	Dip.	Univ.	Col.Tot.
Drug users	6(43%)-	35(69%)	31(58%)	7(88%)+	9(75%)+	18(82%)+	106(66%)
Non drug users	8(57%)+	16(31%)	22(42%)	1(12%)-	3(25)-	4(18%)-	54(34%)-
Tot.	14(100%)	51(100%)	53(100%)	8(100%)	12(100%)	22(100%)	160(100%)

a. Figures in parenthesis represent column percentages
b. χ^2 = 9.05 significant at p > 0.025, 5 df.
+ represents overrepresented frequencies
- represents underrepresented frequencies

According to the findings, drug using respondents are overrepresented among those respondents whose fathers attained secondary advanced level (A-level), Diploma and University education. Similarly non drug users are underrepresented in these education levels. For example 82% of the respondents whose fathers obtained university level of education were drug users, while 18% were non drug users. This indicates that non drug users are likely to have fathers who have attained higher levels of eduction than non drug users in our sample.

On lower levels of education the findings do not indicate a strong pattern, but they suggest that among respondents whose fathers have no education, there are slightly more non drug users than drug users. Fifty seven percent of these respondents are non drug users. This finding is consistent with our previous

observation that drug users are more likely to have fathers who have attained higher levels of education.

Our conclusion that drug users are more likely to have fathers who have attained higher levels of education is statistically significant, on account of the significant chi square (χ^2 = 9.05 at 5df; p 0.025). However the contingency coefficient indicates that this relationship is weak.

Table 23: Mother's education versus use of drugs.

Use/non Use of drugs	Mother's Occupation				
	No educ.	primary	O-level	Higher	Row.total
Drug users	10(37%)-	45(66%)-	34(74%)+	17(77%)+	106(65%)
Non drug users	17(63%)+	23(34%)+	12(26%)-	5(23%)-	57(35%)
Col. tot.	27(100%)	68(100%)	46(100%)	22(100%)	163(100%)

a. Figures in parenthesis represent column percentages
b. χ^2 = 12.39 at 3 df p > 0.025. C=:27
+ represents overrepresented frequencies.
- represents underrepresented frequencies.
Sample size < 182 due to non response (motherless respondents)

Apparently findings on our respondents mothers' education are consistent with those on their fathers' education. Table 23 shows that on the lower levels of education more non drug using respondents reported to have 'lowly' educated mothers. According to the findings, 63% of all the respondents who have mothers who are not educated, were non drug users. This percentage indicates an overrepresentation of non drug users in the sample, when we consider their percentage in the sample.

At the same time the findings strongly suggest that drug users are much more likely to have mothers who are highly educated. For example 77% of the respondents whose mothers are highly educated (secondary A-level, Diploma, and university education) were drug users. Similarly 74% of those respondents whose mothers attained secondary o'levels were drug users. These percentages indicate an overrepresentation of drug using respondents, according to the marginal percentage (65%) which represents the proportion of drug users in the sample.

The above findings yielded a chi square statistic that is statistically significant (χ^2 = 12.39 at 3 df; p>0.025) and the contingency coefficient indicates that the association between drug use and non drug use and mothers education is weak. (C=·27)

Because both parent's (mother and father) education has been found to be related to the use or non use of drugs, then we may conclude that parents social position as indicated by the level of education is associated with the use of drugs by their children. Findings in our two tables have consistently indicated that drug using respondents in our sample are more likely to have parents who are highly educated, while non drug using ones are more likely to have parents with low education.

To explain this finding, we need to begin from the notion that parents with different levels of education exhibit different behaviour patterns. These behaviour patterns may relate directly or indirectly to drug use. In a direct way, the parents of drug using children may be leading more liberal lifestyles, and hold values that tend to favour drug use. For example, they may

provide their children with pocket money which in turn enables their children to purchase drugs.

In an indirect way, attitudes promoting drug use may be reinforced by indirect factors related to education, such as income and urban influence. Therefore, parents with higher incomes may receive higher incomes which their children may get easy access to, in the form of pocket money. Similarly, parents with higher education levels are more likely to work and live in urban areas where drugs are easily available and urban values are more favourable to drug use.

5.2 Hypothesis 2: Drug using students are likely to have taken up the habit in the process of interaction with drug using peers.

5.2.1 Introduction

In this hypothesis we will consider the effect of interaction between drug using and non drug using respondents, with their close friends or peers. The hypothesis is therefore intended to examine the extent to which drug using respondents associate with drug using peers, and whether this sort of relationship relates to drug use. More importantly this section will attempt to examine whether it is more likely that peers introduced our respondents to the use of drugs, than other individuals

Table 24: Sources of introduction to drugs, by drug type.

Whointroduced you to the drugs?	Drug type: Cigarette	Alcohol	Khat	Cannabis	Tranq.	Row Total
Family memb.	11(10%)-	42(28%)+	10(20%)	2(6%)-	3(18%)	68(19%)
Friend	78(68%)+	76(51%)	26(53%)	29(81%)+	6(35%)-	215(59%)
Oneself	19(17%)	23(15%)	8(10%)	5(14%)	8(47%)+	63(17%)
Cant remember	7(6%)	9(6%)	5(10%)	_	_	21(6%)
Col.tot.	115(100%)	150(100%)	49(100%)	36(100%)	17(100%)	*367(100%)

a. Figures in parenthesis represent column percentages
* Total larger than sample size (182) due to polydrug use
+ Indicates overrepresentation,
- Indicates Underrepresentation.

The table above shows the results of our respondents reports on who introduced them to each type of drug they have ever `tried'. For all the respondents who have ever tried cigarettes, alcohol, khat and cannabis, the findings suggest that most of the users were introduced to these drugs by their close friends. For example, 68% of all the respondents who have tried cigarettes were introduced to the drug by their friends. In total 115 respondents reported to have tried cigarettes. The findings further indicate that 17% of these respondents introduced themselves, 10% were introduced by a family member or relative while 6% could not remember who introduced them.

However, it is also worth noticing that the findings indicate that the use of alcohol was introduced to our respondent by `family members or relatives' more frequently than could be expected from the marginal frequencies of the `introducers'. The marginal percentages indicate that whereas 19% of the respondents were introduced to drug use by `family members or relatives', the column percentage of alcohol users indicates that 28% of

respondents who have ever tried alcohol were introduced by `family members or relatives'. This shows that family members and relatives are more likely to introduce potential users of alcohol. In the same way we notice that more tranquillizer using respondents (`ever tried') introduced themselves, than expected from the marginal frequencies.

To this point our findings strongly suggest that `peers' play a larger role in introducing our respondents to drugs, than `family members or relatives' and `oneself'. However this information, as crucial as it may be, does not give us a complete picture of the role of peers in drug use. To get a fuller picture, we need to examine the possible association between the approximate number of drug using close friends one has, and the effect of this towards drug use. Below we have a table illustrating the approximate number of drug using close friends our drug using respondents reported to have, by type of drug.

Table 25: Drug users' approximate number of close friends using drugs, by drug type.

Approx.No.of friends using...	Drug type: Cig.	Alcohol	Khat	Cannabis	Tranq.	Row tot.
None/v.few	9(12%)-	23(23%)	9(56%)+	9(47%)+	10(90%)+	60(29%)
Several	31(44%)+	30(30%)	6(38%)	3(19%)-	1(10%)-	71(33%)
Many	31(44%)+	46(47%)+	1(16%)-	4(25%)-	-	- 82(38%)
Col.tot.	71(100%)	99(100%)	16(100%)	16(100%)	11(100%)	*213(100%)

a. Figures in parenthesis represent column percentages
* Sample size exceeds 118 due to polydrug use.
+ Indicates overrepresentation, - Underrepresentation.

First of all, findings in the table (table 25) indicate that a larger percentage of all drug users reported that they have many close friends who use the same type of drug. According to the marginal percentages, 38% of the drug using respondents reported to have `many' drug using friends. This percentages is larger than the percentage of those who reported to have `several', `very few' or `no' close friend who uses drugs. Only 29% of the respondents reported to have `no' close friend using drugs. In relative terms, the marginal percentages indicate that it is more likely for drug users to have `many' than `no' close friends using drugs.

However the case for each type of drug may vary slightly on approximate number of close friends using them. For cigarettes and alcohol users the percentage of respondents who reported to have approximately `many' friends using the respective drugs was not larger than those who reported to have `several', `very few' or `no' friends, but was also larger than expected from the marginal percentages. For example 44% of the cigarette using respondents and 47% of the alcohol using respondents reported to have `many' friends using cigarettes and alcohol respectively. In relation to the marginal percentage (38%), these two percentages reflect overrepresentations. At the same time cigarette and alcohol using respondents who reported to have `none or very few' who use the respective drugs were relatively fewer. The percentages were 9% for cigarette users, and 23% for alcohol users, and these are an underrepresentation in relation to the marginal percentage (29%).

By contrast a larger percentage of khat, cannabis and tranquillizer users reported that they had 'none or fewer' friends who use the drug. The findings show that 47% of the khat users, 56% of the cannabis users and 90% of the tranquillizer users had 'none or fewer' friends using the respective drugs. In relation to the marginal percentage (29%), these percentages reflect a significant overrepresentation. Similarly, a smaller percentage of the users of these drugs reported to have had 'many' friends using them, than expected from the marginal percentage (38%) of the drug users who reported to have many friends using the drugs. Sixteen percent of the khat users, 25% of the cannabis users and 0% of the tranquillizer users reported to have had many friends using the drugs. These percentages reflect an underrepresentation in relation to the marginal percentage (38%).

In conclusion we observe that cigarette and alcohol users are more likely to have many friends using the same drugs, and also more likely to have 'none or fewer' friends using them, than users of other drugs. On the other hand, users of khat, cannabis and tranquilizers are more likely to have 'none or fewer' friends using the same drugs, but more unlikely to have 'many' friends using them, than users of cigarettes and alcohol.

These findings suggest that users of cigarettes and alcohol tend to have 'many' friends using the same drugs. Hence the association between the approximate number of drug using close friends and drug use exists among users of these drugs. However this association is not apparent among users of khat, cannabis and tranquilizers. These users tend to have fewer friends using

the same drug, than expected. Nevertheless, this unexpected finding may be accounted for by the fact that these drugs have been shown to be unpopular among students by our previous tables (e.g table 10). The logic in this case is that if there are very few users of khat, for example in a population, then these few khat users will necessarily have few close friends who use khat too.

Table 26: Comparison between cigarette users' and non drug users' approximate number of friends using cigarettes

Cigarette/ non drug users	Approximate no. of friends using cigarettes				
	None	Very few	Several	Many	Row total
Cig. users	1(4%)--	8(26%)-	31(69%)+	31(89%)++	71(53%)
Non drug users	23(96%)++	23(74%)+	14(31%)-	4(11%)--	64(47%)
Column total	24(100%)	31(100%)	45(100%)	35(100%)	135(100%)

a. Figures in parenthesis represent column percentages
* Sample size exceeds 118 due to polydrug use.
+ Indicates overrepresentation,
++ Substantial overrepresentation
- Underrepresentation, -- substantial underrepresentation.
χ^2 = 54.46 at 3 df 0.05 > p > 0.01, tau b = 0.40, tau c = 0,12.

First we compared the approximate number of close friends for cigarette users and non drug users and the findings appear in table 26. The findings indicate that although this subsample contains 53% of cigarette users and 47% non drug users, cigarette users are substantially underrepresented among respondents who reported to have no cigarette using close friend. Among these respondents only 4% were cigarette users while 96% were non drug users. Basing our conclusion on these percentages, we may say that it is more likely that the students with no

cigarette using friends would be non drug users. The same conclusion applies for respondents with very few cigarette using close friends. In these cases, cigarette users (26%) are underrepresented, while non drug users (74%) are overrepresented too.

On the contrary, among respondents who reported to have "several" or "many" cigarette using friends, cigarette users are overrepresented, while non drug users are underrepresented in relation to their respective marginal percentages. This case is clearer among respondents who reported to have many cigarette using respondents. Here 89% of the respondents were cigarette users while only 11% were non drug users. These findings imply that it is more likely that students with many cigarette using friends would be cigarette users.

Overall, we may conclude that cigarette using respondents tended to have relatively more cigarette using close friends, than non drug users, who tended to have fewer cigarette using friends. Further more this conclusion gains more statistical support from the significant chi square ($\chi 2$ = 54.46 at 3dtf 01). Yet according to the tau b, we may add that the knowledge of the approximate number of cigarette using close friends a student has, reduces the predictive error of his being a cigarette or a non drug user, by 40%. This magnitude of tau b indicates that the strength of predictive power is moderately strong.

Table 27: Comparison between alcohol users' and non drug users' approximate number of friends using alcohol

Alcohol/ non drug users	Approximate no. of friends using alcohol				
	None	Very few	Several	Many	Row total
Alcohol users	3(12%)--	20(54%)	30(67%)	46(82%)++	99(61%)
Non drug users	22(88%)++	17(46%)	15(33%)	10(18%)--	64(39%)
Column total	25(100%)	37(100%)	45(100%)	56(100%)	163(100%)

a. Figures in parenthesis represent column percentages
* Sample size exceeds 118 due to polydrug use.
+ Indicates overrepresentation, ++ Substantial overrepresentation
- Underrepresentation, -- substantial underrepresentation.
χ^2 = 37.02 at 3 df $0.05 > p > 0.01$, tau b = 0.24, tau c = 0.07.

Table 27 shows that our subsample of alcohol users and non drug users is made up of 61% alcohol using respondents and 39% non drug users. Taking these marginal percentages into account, we observe from the table that alcohol users are considerably underrepresented among respondents who reported to have `no' close friends using alcohol, while non drug users are considerably overrepresented. 12% of these respondents were alcohol users while 88% were non drug users. In relation to the marginal percentage, this implies that respondents who have `no' close friends using alcohol are more likely to be non drug users than alcohol users.

Consistent with the above observation, the findings indicate that respondents who reported to have `many' alcohol using friends, were more likely to be alcohol users than non drug users. This is because, regarding their respective marginal percentages, alcohol users are overrepresented among these

respondents, while non drug users are underrepresented. Consequently this implies that alcohol users are more likely to have many alcohol using friends while non drug users are more likely to have relatively fewer. The chi square realized from the findings is statistically significant (χ^2 = 37.02 at 3df .05>p>·01), indicating that an association actually exists between the approximate number of alcohol using friends and the alcohol use or non drug use. Meanwhile, the findings on tau b indicate the knowledge of the approximate number of friends using alcohol, one has, reduces the predictive error of alcohol use or non drug use by 24%. This is significant.

Table 28: Comparison of the approximate number of friend using khat, for khat users and non drug users.

Khat/ non drug users	Approximate no. of friends using Khat		
	None/few	Several/many	Row total
Khat users	9(13%)-	7(77%)++	16(20%)
Non drug users	62(87%)+	2(23%)--	64(80%)
column total	71(100%)	9(100%)	80(100%)

a. Figures in parenthesis represent column percentages
* Sample size exceeds 118 due to polydrug use.
+ Indicates overrepresentation,
++ Substantial overrepresentation
- Underrepresentation, -- substantial underrepresentation.
χ^2 = 21.16 at 1 df 0.05 > p > 0.01, tau b = 0.24, tau c = 0.32.

In our subsample of khat users and non drug users, (table 28) there were 80 respondents. Out of these khat users comprised

20% and non drug users, 80% as is indicated by the marginal percentages in the table above (table 28).

In this subsample, 77% of the respondents who reported to have `several/many' khat using close friends, were khat users, while 23% were non drug users. Because these percentages depict an overrepresentation among the khat users, and an underrepresentation among non drug users in relation to their respective marginal percentages (20% drug users; 80% non drug users), we may conclude that khat users are more likely to have `several/many' friends who use khat, than non drug users. Similarly, non drug users are less likely to have `several/many' khat using friends than khat users.

By contrast the findings for those who reported to have `none/few' khat using friends, show that a larger percentage of these are likely to be non drug users. This is because while non drug users are overrepresented among these respondents, khat users are underrepresented. Non drug users are 87% while khat users are 13% of the respondents with `none/few' khat using friends.

Overall these findings suggest that there is a significant tendency of khat users to have `several/many' khat using friends, to a larger extent than non drug users. At the same time, non drug users tend to have `none/few' friends to a larger extent than khat users. Besides, this conclusion is sufficiently on a par with the one of cigarette and alcohol users compared to non drug users. These findings have all indicated that users of a particular drug are more likely to have relatively more friends who use the type drug, than non users could have.

Table 29: Comparison of the approximate number of friends using cannabis, for cannabis users and non drug users.

Cannabis/ non drug users	Approximate no. of cannabis using friends		
	None	Few/Several/many	Row total
Cannabis users	2(3%)-	14(74%)++	16(20%)
Non drug users	59(97%)+	5(26%)--	64(80%)
column total	61(100%)	19(100%)	80(100%)

a. Figures in parenthesis represent column percentages
* Sample size exceeds 118 due to polydrug use.
+ Indicates overrepresentation,
++ significant overrepresentation
- Underrepresentation, -- significant underrepresentation.
Chi square cannot be used.

Although in the table above, chi square can not be used to analyze the results, we shall rely on the clear differences in the magnitudes, which lean towards the hypothesized direction. For example, the findings indicate that among those respondents who reported to have `no' cannabis using friend, non drug users were overrepresented while cannabis users were underrepresented in relation to their relative marginal percentages. Whereas this subsample contained 20% cannabis users, only 3% reported to have "no" cannabis using friend. Similarly, 80% of the respondents in the subsample were non drug users, yet 97% of those reporting to have "no" cannabis using close friend were non drug users. The implication in this case is that it is more likely that non drug users have "no" cannabis using friends, than cannabis users.

At the same time, among those respondents reporting to have `few/several/many' cannabis using friends, cannabis users are considerably underrepresented, in relation to their respective

marginal percentages. 74% of these respondents were cannabis users, while only 26% were non drug users. The implication in this case is that cannabis users are more likely to have relatively many cannabis using friends than non drug users. Because some of the frequencies in the table are somewhat small such that the square analysis is relevant, we largely rely on the large magnitude of differences which point towards the hypothesized direction, to derive our conclusions.

Table 30: Comparison between tranquillizer users' and non drug users' approximate number of friends using tranquilizers

Tranquillizer/non drug users	Approximate no. of friends using tranquilizers: None	Few/Several/many	Row total
Tranquillizer users	5(7%)-	6(50)++	11(15%)
Non drug users	58(93%)+	6(50%)--	64(85%)
Column total	63(100%)	12(100%)	75(100%)

. Figures in parenthesis represent column percentages
+ Indicates overrepresentation.
++ significant overrepresentation.
- Underrepresentation, -- significant underrepresentation.

Once again we rely on the magnitude of differences to explain our findings in table 20. In this case, similar to the findings on the drugs, the findings suggest that tranquillizer users are more likely to have relatively more tranquillizer using friends than non drug users. The findings show that among respondents reporting to have few/several/many tranquillizer using friends, tranquillizer users are overrepresented while non

drug users are underrepresented, in relation to their respective marginal percentages. Conversely, non drug users are slightly overrepresented among respondents reported to have no tranquillizer using friends, while tranquillizer users are slightly underrepresented. The direction of the difference in magnitude is consistent with the one for the other drugs.

In conclusion, we first note that for all the five type of drugs, there is a consistency in the direction of the magnitude of differences in their approximate number of drug using friends drug users (each type of drug) and non drug users have. The findings have consistently shown that drug users (of each type of drug) tend to have more drug using friends than non drug users. Similarly non drug users tend to have fewer drug using friends than drug users.

Secondly the analysis has shown that the difference in the approximate number of drug using close friends between non drug users and cigarette, alcohol, and khat users was statistically significant, and substantially strong in regard to the tau bs realized. The same could be expected of cannabis and tranquillizer users, if the sample size were larger. Nevertheless the direction indicated by the magnitude of differences was consistent with the hypothesized direction.

Considering all these observations, we may conclude that there is a difference between drug users and non drug users approximate number of drug using close friends. While drug users are likely to have more drug using close friends, non drug users are likely to have fewer.

6.2.2 Conclusion

Overall, these results prompt us to conclude that the drug using peer group exerts a significant pressure on its members' drug behaviour. One way by which this influence is exerted is by way of introduction to drugs. The findings have suggested compared to other sources it is more likely for a drug using youth, to be introduced to drug use by fellow drug using peers. Secondly the findings have suggested that it is more likely that drug using students have a higher approximate number of drug using peers than non drug users. Hence an association exists between the approximate number of drug using peers and his/her use or non use of drugs. Those with many drug using peers are more likely to be drug users themselves.

These two points highlight the dynamics of the peer group in influencing behaviour of other peer members. This influence is determined by on the one hand, the dominant character of the peer group and on the other, the character of the individual. A peer group with an overwhelming majority of drug users, is more likely to exert more pressure for individuals to use drugs, than a group with a majority of non drug users, which instead encourages restraint from drugs. However the character of the individual becomes an important aspect too. Some individuals yield to peer pressure while some do not, yet remaining active members of the group. Nevertheless, in the case where dug use is influenced by the peer group. The behaviour has to have been a consequence of peer association, and not preceeded it.

6.3 Hypothesis 3: Commitment to religion is negatively related to drug use among college students (two-tailed hypothesis).

There are two items measuring the scale of 'commitment to religion'. These will first be related to use and non use of drugs, before relating the scale itself to use and non use of drugs. Before this is done, however the items will be checked for reliability and unidimensionality, by conducting an item analysis.

Table 31: Regularity of church attendance

Use/Non use of drugs	Church attendance (attendance per year)					
	V.often	Often	Sometimes	Rarely	Never	Row tot.
Drug users	3(13%)--	29(50%)	32(84%)+	38(94)++	16(94%)++	118(65%)
Non drug users	21(87%)++	29(50%)	6(16%)-	7(6%)--	1(6%) --	64(35%)
Col.tot.	24(100%)	58(100%)	38(100%)	45(100%)	17(100%)	182(100%)

a. Figures in parenthesis represent column percentages
+ Indicates overrepresentation.
++ Substantial overrepresentation.
- Underrepresentation, -- substantial underrepresentation.
χ^2 = 54.01 at 4 df 0.05 > p > 0.01, one tailed test, tau b=0.07 C= 0.48

Findings in table 31 depict a pattern where drug using respondents are shown to attend church less often than non drug using ones. While drug users are relatively more likely 'not' to attend church, non drug users are more likely to attend church "very" often. For example, among those respondents who responded that they attend church 'very often', in a year, 87% were non drug users, and 13% were drug users. These percentages depict an overrepresentation among non drug users and an

underrepresentation among drug users because according to the marginal percentages non drug users make up 35% of the total sample while drug users make 65%.

By contrast the findings further indicate that among the respondents who 'never' attend church, 94% are drug using and 6% are non drug using respondents. Similarly, among those who `rarely' attend church, 84% were drug users and 16% non drug users. In these instances drug users are substantially underrepresented while non-drug users are substantially over represented, relative to the respective marginal percentages of both types of respondents.

Hence the emerging pattern is that drug users attend church less often than non drug users. These findings have realized a significant chi-square which indicates that our conclusion is statistically significant. Similarly the contingency coefficient (C =.48) indicates that the association between use and non use of drugs and `church attendance' is moderately strong. And according to tau we may add that the knowledge of how often a student attends church, reduces the number of errors of predicting his/her use or non use of drugs by 7% (A relatively weak predictive value)

The second item on religious commitment is the students view on the `importance' of religion to their lives. These findings also indicate that drug users gave substantially different reports on their view on importance of religion, from non drug users. In relative terms, drug users are substantially more likely to hold the view that religion is not important, while non

drug users are much more likely to hold the view that religion is very important.

Table 32: Drug users' and non drug users' view on religions importance

Use/Non use of drugs	Importance of Religion			
	Very important	Average	Not important	Row total
Drug users	31(46%)--	38(72%)+	49(83%)++	118(65%)
Non drug users	39(54%)++	15(28%)-	10(17%)--	64(35%)
column total	70(100%)	53(100%)	59(100%)	182(100%)

a. Figures in parenthesis represent column percentages
+ Indicates overrepresentation.++ Substantial overrepresentation
- Indicates underrepresentation.
-- substantial underrepresentation.
χ^2 = 22.65 at 2 df 0.05 > p > 0.01, tau b=0.32

According to the findings (table 32) among those respondents who reported that religion is very important, 46% were drug users while 54% were non drug users. In this respect drug users are normally substantially underrepresented while non drug users are substantially overrepresented, if we consider their respective percentages in the sample.

Consistent with this pattern among respondents who reported that religion is `not important' the reverse was the case: drug users are overrepresented while non drug users are underrepresented. Among these respondents, 83% were drug using while 17% were non drug using. In all these findings suggest that drug users are not only more likely to view religion as `not important', but also are less likely to view it as `very important' compared to non drug users.

Again these findings have realized a significant chi square, (χ^2=22.65) and this implies that our conclusion is statistically significant. Moreover, we may add that according to our tau b, the knowledge of a college students view on importance of religion, would reduce the predictive error of use or non use of drugs by 32%. This is a substantial predictive indeed.

Table 33: Distribution of drug users by church attendance and by type of drug used

Church	Drug type					Row tot.
attendance	Cigarette	Alcoh.	Miraa	Cannabis	Tranq.	
Very often	2(3%)	-	3(20%)	-	- 3(8%	5(3%)
Often	13(19%)	26(17%)	3(20%)	2(17%)	3(33%)	47(23%)
Sometimes	20(29%)	29(30%)	2(13%)	1(8%)	2(22%)	54(27%)
Rarely	25(41%)	32(33%)	3(20%)	4(33%)	4(44%)	68(34%)
Never	10(14%)	11(11%)	4(27%)	5(42%)	-	30(15%)
Col.total	70(100%)	98(100%)	15(100%)	12(100%)	9(100%)	204(100%)

a. Figures in parenthesis represent column percentages
* Total sample size exceeds drug users sample size (118) due to polydrug use

Table 33 gives a more detailed information on the report on church attendance by users of each type of drug. According to the findings a larger percentage (41%) of cigarette smokers `rarely' attend church, while those who attend `very often' comprise 3% of the cigarette using respondents.

Among alcohol using respondents, those who `rarely' attend church are 33% of the alcohol users, which represents the largest percentage among this group. The pattern among alcohol and cigarette users therefore indicates that users of these drugs are more likely to attend church `rarely' and more unlikely to attend `very often'. These percentages are consistent with the marginal

percentages which show that 34% of all the drug users, which is the highest percentage in this column, `rarely' attend church. Similarly, the 3% who attend church `very often', is the lowest percentage.

Frequencies of respondents who reported that they use khat, cannabis and tranquilizers, were too small for a reasonable statistical analysis, and as a result they were combined. For these drugs a larger percentage (31%) of their users also reported that they `rarely' attend church while a relatively smaller percentage (8%) reported to attending church `very often'.

While we can not conclude that the users of each type of drug do not attend church altogether, we gather from the findings that it is more unlikely that users of these drugs would attend church `very often'.

We constructed a scale, `commitment to religion' using two items namely `church attendance' and `view on the importance of religion'. These two items are tested for reliability and unidimensionality in the following table.

Table 34: Item analysis for `commitment to religion' scale

Item	Item total correlation
1. Church attendance	0.91
2. Importance of religion	0.90

Alpha scale = 0.90
Item to item correlation = 0.90

According to these correlation results, the two scale items are reliable and approximately unidimensional. Therefore they are worth retaining in the scale.

Table 35: Distribution by commitment to religion

Use/nonuse of drugs	Commitment to religion				
	Very	Fairly	Slightly	Not committed	Row total
Drug users	17(33%)	26(58%)+	37(82%)++	38(86%)++	118(35%)
Non users	34(67%)+	19(42%)-	8(18%)--	3(14%)--	64(65%)
Col.tot.	51(100%)	45(100%)	45(100%)	41(100%)	182(100%)

a. Figures in parentheses represent column percentages
$\chi 2 = 43.09$: C=.44

It is evident from table 35 that it is more likely for drug users to be `slightly' or `not committed' to religion, than non drug users. We gather from the findings that a declining commitment to religion tends to be associated with an increasing number of drug users but a decreasing number of non drug users. The association is therefore negative for non drug users and positive for drug users.

According to the table the largest disproportion of non drug users and drug users obtains among respondents who reported to be `not committed' to religion. Among these respondents, 14% were non drug users, while 86% were drug users. Taking the respective marginal percentages of drug users (65%) and non drug users (35%) into account, these percentages connote an overrepresentation among drug users and an underrepresentation among non drug users. Hence these findings indicate that it is more likely that respondents who are `not committed' to religion would be drug using than non drug using respondents.

Apparently this overrepresentation of drug users begins at the score where the respondents are reported to be `fairly'

committed, and it increases towards those who are reported to be 'slightly' and 'not committed'. For example, drug users compose 58% of respondents who are 'fairly committed', 82% of those who are 'slightly committed' and 86% of those who are 'not committed'. Likewise, non drug users are underrepresented all in these scores.

These findings achieved a significant chi square, (χ^2 =43.09) and this prompts us to add that our conclusion is statistically significant. Moreover the tau b of 0.24 suggests that the knowledge of the extent of a students' religious commitment reduces the number of errors of predicting his/her use of drugs by 24%. This Proportional Reduction of Errors (P.R.E) value also implies that the association between use or non use of drugs and being committed to religion has moderately strong predictive value.

6.3.1 Conclusion

Regarding the above findings, it is clear that they firmly suggest that drug users tend to be generally less committed to religion than non drug users. In other words, and more specifically, commitment to religion does not seem to be compatible with drug use. According to the findings, those respondents who were reportedly to be more committed to religion were those who attend church more often and regard religion as highly important and a larger percentage of these were reported to be non drug users.

Hence following the basic premise behind Johnsons Social bond theory (1987)[2] a commitment to religion dissuades persons from drug use, because such a commitment limits ones time to contemplate and commit delinquent acts - in our case, drug use. However, cases of committed christians indulging in drug use are known. Therefore if we have to explain how religion is incompatible with drug use, we have to add the moral dimension of religion. With respect to this moral dimension, it is first believed that there is a variation in the extent to which people believe in society's norms, and the more the belief the less likely they are to engage in delinquency. Perhaps then, only those people who are truly committed to religion and also truly believe in its moral teachings are likely to fully restrain themselves from drug use.

This idea of the moral dimension was further explained by Durkheim (1945)[3]. He explained that socialization and social control serve to mitigate threats of human activity (self interest and stupidity) which sabotage the institutional programs. While socialization seeks to ensure a continuing consensus concerning the most important features of the social world, social control seeks to maintain individual or group resistance with tolerable limits. Furthermore, legitimation serves to explain and justify the social order. Hence, in few words, religion legitimates social institutions.

6.4 Hypothesis 4: **Drug users are likely to be more committed to education than non-drug users.** (two tailed test hypothesis).

In testing this hypothesis, first the items measuring commitment to education will be correlated to drug use and non drug use. Secondly these items shall be tested for reliability and unidimensionality, by conducting an item analysis for the items. Then the scale which is based on these items will be tested against drug use and non drug use.

Table 36: Time spent on schoolwork by users and non users of drugs.

use/nonuse of drugs	Hours spent on schoolwork				
	< 1	2 to 3	3 to 4	> 4	Row. Total
Drug users	16(76%)+	56(67%)	22(58%)-	24(61%)-	118(65%)
Non drug users	5(24%)-	28(33%)	16(42%)+	15(39%)+	64(35%)
Col.tot.	21(100%)	84(100%)	38(100%)	39(100%)	182(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 2.30 (not significant) 0.05 > p > 0.01 at 3 df c=.01.
\+ Indicates overrepresentation, - indicates Underrepresentation.

Findings in table 36 above show the time (hours) drug using and non drug using students spent on schoolwork per day. These findings show that among students who spent (less) than one hour on schoolwork per day, there is a slightly larger percentage of drug users than non drug users. The drug users comprise 76% of the total while non drug users are 24%. This indicates an

overrepresentation of drug users who according to the marginal percentage, are 65% of the total respondents in this sample.

Furthermore the findings tend to indicate that there are fewer drug users than non drug users among those respondents who dedicate more than 3 hours on schoolwork per day (`3 to 4' hours and `more than 4' hours). For example among those respondents who spent about `3 to 4' hours on schoolwork per day, 42% are non drug users while 58% are drug users. The 42% non drug users are a slight overrepresentation, because according to the marginal total non drug users comprise 35% of all the respondents in the sample.

In spite of this tendency of drug users to spend less time on schoolwork, than the non drug users, the chi square statistic indicates that this association is not statistically significant (χ^2 = 2.30 at 3 df: p 0.025). In addition the contingency coefficient (c = 0.01) confirms how extremely weak this association is

Table 37: Academic Grades received by users and non users of drugs.

use/non use of, drugs	Academic Grades				
	Excellent	V. good	good	Fair	Row. Total
Drug users	3(38%)-	23(62%)	67(64%)	17(71%)+	111(63%)
Non drug users	5(62%)+	14(38%)	38(36%)	7(29%)-	64(37%)
Col.tot.	8(100%)	37(100%)	105(100%)	24(100%)*	175(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 1.90 (not significant) 0.05 > p > 0.01 at 3 df.
\+ Indicates overrepresentation, - Underrepresentation.
*Sample size less than 182 due to missing cases: Some

χ^2 = 1.90 (not significant) 0.05 > p > 0.01 at 3 df.
\+ Indicates overrepresentation, - Underrepresentation.
*Sample size less than 182 due to missing cases: Some first year students reported that they have not done any exams since they joined university.

Table 37 above illustrates the `average' grades received by drug users and non drug users. The findings suggest that there is a slight tendency for drug users to receive `fair' grades more than non drug users, who are slightly more likely to receive `excellent' grades in our sample. For the purpose of this study `fair' grades (and to a large extent `good' grades) represent poor grades in relative terms while excellent and very good grades represent relatively good grades.

According to the findings, out of the eight respondents who received `excellent' grades, 62% of these were non drug users. This represents a considerable overrepresentation of non drug users who comprise 37% of the respondents in the sample. Furthermore and consistent with these findings, among those respondents who received `fair grades', only 29% of them were non drug users. In this case 29% is an underrepresentation of non drug users in relation to the marginal (37%).

In short, a slightly larger percentage of drug users received `fair' grades than non drug users. However this tendency is not statistically significant (χ^2 = 1.90 at 3df; p 0.25) and as a result we still hold the position that there is no association between drug use or non drug use and the grades received by college students.

Table 38: Grades received by users and non users of drugs.

use/non use of drugs	Intentions to pursue further education			
	Yes Very Much	Yes Perhaps	No	row.tot.
Drug users	30(58%)	53(68%)	35(67%)	118(65%)
Non drug users	22(42%)	25(32%)	17(38%)	64(35%)
Col.total	52(100%)	78(100%)	52(100%)	182(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 1.83 (not significant) 0.05 > p > 0.01 at 2 df.

On the findings depicted in the table above (table 38) the results also yielded a chi square that is not significant (χ^2 = 1.83 at 2 df; p 0.25). This indicates that similar to the previous two tables' findings (table 36 and 37), the relationship between our respondents intentions to pursue further education and drug use or non drug use does not hold.

However, so far as concerns percentages, there was a slight and weak tendency of drug using respondents to be less interested in further education, than non drug users according to their reports. The findings indicated that out of the respondents who 'very much' intend to pursue further studies, 58% were drug users and 42% non drug users. The 58% drug users are an underrepresentation because 65% of the respondents in this sample are drug users. Similarly the 42% non drug users are an overrepresentation because 35% of the respondents are non drug users.

In order to base our conclusions on a more reliable scale, we constructed a scale for 'commitment to education', using the three items discussed in the previous three tables.

Table 39: Item analysis for commitment to education scale.

Item	Item total correlation	Alpha if item deleted
Time spent on school-work	.84	.76
Grades received	.86	.82
Further education	.78	.82

Alpha = .80

According to the results of these correlations all the three items of the scale 'commitment to education', are approximately unidimensional and reliable, and are therefore worth retaining in the scale. Consequently the scale was crosstabulated with use and non use of drugs, among college students, and the eventual results appear below.

Table 40: Academic Grades received by users and non users of drugs.

use/nonuse of drugs	Commitment to Education				
	V.good	Strongly	Fairly	Poorly	Row Total
Drug users	8(44%)-	43(63%)	50(74%)+	17(61%)	118(65%)
Non drug users	10(56%)+	25(37%)	18(26%)-	11(39%)	64(35%)
Col.total	18(100%)	68(100%)	68(100%)	28(100%)	182(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 5.8 (not significant) 0.05 > p > 0.01 at 3 df.
+ indicates overrepresented frequencies
_ indicates underrepresented frequencies.

These findings, based on the more reliable scale 'commitment to education', do not depict a clear emergent pattern of drug use according to commitment to education. Perhaps the only

significant point is that more non drug users tend to be 'very strongly' committed to education than drug users. 56% of the non drug users compared to 44% of the drug users, are "very strongly" committed to education. The 56% non drug users is a significant overrepresentation where they comprise only 35% of all the respondents in our sample. Similarly the 44% of the drug users are an underrepresentation of the drug users.

Despite this tendency, the other frequencies and percentages do not give any hint about an emerging pattern of drug use according to commitment to education. Moreover the chi square is not significant.

6.5.0 Hypothesis 5: **There is a negative association between drug use and an appropriate parental supervision among college students** (two tailed test hypothesis).

In our research questionnaire we had five items that were designed to measure 'parental supervision' among our respondents. These items will separately be related to use or non use of drugs, and their findings discussed at the same time. After these discussions on the items, they will be tested for unidimensionality and reliability, before discussing the relationship between the scale and use or non use of drugs.

Table 41: The extent to which students talk to their mother.

use/non use of drugs	Talk problems to mother: V.often	Often	Sometimes	Rarely	Never	Row Total
Drug users	11(61%)	27(69%)	37(61%)	26(72%)+	11(73%)	112(66%)
Non drug	7(39%)	12(31%)	25(39%)	10(28%)-	4(27%)-	57(34%)
Col total	18(100%)	39(100%)	61(100%)	36(100%)	15(100%)	169(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 4.46 (not significant) at 4 df $0.05 > p > 0.01$.
\+ Indicates overrepresentation, - Indicates Underrepresentation.

Table 41 above shows that drug users are slightly overrepresented among respondents who reported to `rarely' and `never' talk about their problems with their mothers. Among respondents who `never' talk about their problems with their mothers, 73% were drug users while among those who `rarely' talk about their problems, 72% were drug users. Because 66% of the respondents who responded to this question were drug users, these percentages are a slight overrepresentation. However these findings did not yield a significant chi square. Although the tendency is for drug using respondents to shy from discussing their problems with their mothers, our conclusion remains that there is no relationship between the extent to which the students discuss their problems with their mothers and use or non use of drugs.

Table 42: The extent to which students talk to their fathers.

use/nonuse of drugs	Talk problems to father				
	V.often	Often	Sometimes	Rarely/Never	Row Total
Drug users	19(54%)-	21(64%)	50(64%)	28(78%)+	118(65%)
Non drug users	16(46%)+	12(36%)	28(36%)	8(22%)-	64(35%)
Col total	35(100%)	33(100%)	78(100%)	36(100%)	182(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 5.03 (not significant) at 0.05 > p > 0.01 3 df.
+ Indicates overrepresentation, - Indicates Underrepresentation.

According to findings in table 42 drug users were underrepresented among respondents who reported to discuss their problems with their fathers `very often', but overrepresented among those who discuss `rarely/never'. The reverse is the case for non drug users. For example among those reported to discuss `very often', 54% were drug users, but among those who `rarely/never' discuss, 78% were drug users, yet the sample has 66% drug users according to the marginal percentage. Therefore the tendency is for drug users to be less likely to discuss their problems `very often', and more likely to `rarely/never' discuss their problems than non drug users. Nonetheless, because the chi square indicates that these findings are not statistically significant, we remain non committal with the conclusion that there is no association between use or non use of drugs and the extent to which students talk their problems with their fathers.

Table 43: The extent to which parents know where their children are.

use/nonuse of drugs	Do your parents know where you are? Yes always	Yes often	Sometimes	Rarely/ never	Row total
Drug users	12(43%)-	21(60%)	56(66%)	29(85%)+	118(65%)
Non drug users	16(57%)+	14(40%)	29(84%)	5(15) -	64(35%)
Col total	28(100%)	35(100%)	85(100%)	34(100%)	182(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 12.57 (significant) 0.05 > p > 0.01 at 3 df.
+ Indicates overrepresentation, - indicates Underrepresentation.

The findings in Table 43 show a fairly strong tendency for parents of drug using respondents to be less likely to know where they are in their free times, than the parents of non-drug users. According to the findings out of the respondents who reported that their parents `always' know where they are in their free times, 43% were drug users, and 57% non drug users. This implies an overrepresentation among the non drug users.

On the contrary the findings further imply that drug users are overrepresented among respondents who reported that `rarely/never' do their parents know where they are, while non drug users under the same category, are underrepresented.

Among these respondents 85% were drug users while 15% were non drug users. This suggests that it is more likely that drug users' parents `rarely/never' know where they are in their free time.

Further more the chi square figures for these findings indicate that our conclusion is statistically significant (χ^2 =12.57). There is therefore, an association between the extent

to which the parents know where their children are and use or non use of drugs. The direction is such that it is more likely that parents of drug users 'rarely/never' know where their children are, than parents of non drug users. However the contingency coefficient suggests that this relationship is weak.

Table 44: Usefulness of our respondents parents' advice.

use/non use of drugs	How useful do you find your parents' advice? Very useful	Useful	Slightly useful	Row total
Drug users	42(58%)-	60(67%)	14(88%)+	116(65%)
Non drug users	31(42%)+	29(33%)	3(12%)-	63(35%)
Col total	73(100%)	89(100%)	17(100%)	179(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 4.25 (not significant) $0.05 > p > 0.01$ at 2 df.
+ Indicates overrepresentation, - indicates Underrepresentation.

In table 44 above the findings show that in relation to the marginal percentage there is a substantial overrepresentation of drug users among respondents who reported that their parents advice is 'slightly' useful, and a slight underrepresentation among those who reported that the advice is 'very useful'. While 58% of those finding their parents advice to be 'very useful' are drug users, 88% of those reporting that it is slightly useful are drug users. The tendency is for drug using respondents to be more likely to view their parents advice to be less useful, than non drug users. However, the table yielded a chi square that is not significant (χ^2=4.25), hence we conclude that their is no

relationship between our respondents view on the usefulness of their parents' advice and the use or non use of drugs.

Table 45: Opinion on parents supervision.

use/non use of drugs	Parents supervision. Very appropriate	Appropri- ate	Average	Row total
Drug users	26(60%)	49(64%)	42(69%)	117(65%)
Non drug users	17(40%)	28(36%)	19(31%)	64(35%)
Col total	43(100%)	77(100%)	61(100%)	181(100%)

a. Figures in parenthesis represent column percentages
χ^2 = .845 (not significant) $0.05 > p > 0.01$ at 2 df.

In table 45 we notice that the percentages are more or less a reflection of the proportion of marginal frequencies. The differences in percentages are minimal and there is hardly any comment that can be made. Moreover the chi square indicates that the findings are not statistically significant. As a result we conclude that the opinion of drug users and non drug users on their parents supervision is more or less the same.

So far, we have discussed findings from five tables, each of which represents an item on `parental supervision'. Below, these items are tested for reliability and unidimensionality.

Table 46: Item analysis for parental supervision scale.

Item	Item total correlation	Alpha if item deleted
Talking problems to mother	.82	.83
Talking problems to father	.47	.84
Do parents know where you are	.79	.83
Usefulness of parents advice	.39	.86
appropriateness of parents supervision	.64	.87

a. Alpha = .85 b. All items reliable and unidimensional

To the extent that all the items in table 46 are reliable and approximately unidimensional according to the correlation results, we proceeded with the examination of the extent of "parental supervision" among users and non users of drugs, in our sample.

Table 47: Parental supervision among drug users and non users of drugs.

use/nonuse of drugs	Parents supervision. Very appropriate	Appropri- ate	Average	Inapprop- riate	Row Total
Drug users	32(54%)-	28(65%)	35(67%)	23(82%)+	118(65%)
Non drug Users	27(46%)+	15(35%)	17(33%)	5(18%)-	64(35%)
Col total	59(100%)	43(100%)	52(100%)	28(100%)	182(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 6.73 (significant) 0.05 > p > 0.01 at 2 df.
+Indicates overrepresentation, -indicates Underrepresentation.

Although the findings on `parental supervision' (table 47) are not statistically significant, they indicate a tendency that suggests an emerging pattern. Consistent with the direction indicated in table 41, 42, 43 and 44 and partially table 45, the findings suggest that it is more likely that parental supervision is inappropriate among drug users than non drug users.

According to the findings, among those respondents whose parental supervision is inappropriate, 82% were drug users, a substantial overrepresentation indeed.

On the other hand, drug users are less likely to have `very appropriate' parental supervision, 54% are drug users, and 46% non drug users. This indicates an underrepresentation of drug users and an overrepresentation of non drug users.

In spite of this, we remain non committal in our conclusion, because these findings are not statistically significant.

5.6 Hypothesis 6: **College students who use drugs are likely to be experiencing some relatively high measure of stress than those who do not(two-tailed test hypothesis).**

First of all, items measuring the scale `stress' will be weighed against the use and non use of drugs. Then `stress' as a scale will be measured against use or non use of drugs but only after an item analysis test has been conducted for these items, to establish their unidimensionality and reliability.

The table below shows the extent of stress respondents in our sample reported to have, by use and non use of drugs. This particular type of stress

Table 48: Career uncertainty among users and non users of drugs.

use/non use of drugs	Career related stress				
	Little	Mild	Consider-able	Much	Row total
Drug users	18(47%)-	29(63%)	50(67%)	10(83%)+	107(63%)
Non drug users	20(53%)+	17(37%)	25(33%)	2(17%)-	64(37%)
Col.total	38(100%)	46(100%)	75(100%)	12(100%)	171(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 6.55 (not significant) at 3 df $0.05 > p > 0.025$.
+ indicates overrepresented frequencies.
- indicates underrepresented frequencies.

relates to career uncertainty. Although the table yielded a chi square statistic that indicated there is no relationship between career uncertainty and use or non use of drugs, there emerged interesting percentages. First a smaller percentage of drug users reported experiencing little stress than expected from the marginal percentages. Though drug users comprise 63% of the respondents in the sample, they are significantly underrepresented among those students who reported experiencing little stress. Forty seven percent of these were drug users.

Secondly, among those respondents who reported to experience relatively 'much' stress resulting from career uncertainty, a large percentage of them were drug using students,who comprised 83% of these respondents. They indicate that the expected direction is that more drug users are expected to experience much

stress, than non drug users. Alternatively, drug users are less likely to experience little stress than non drug users.

Table 49: Ambiguity about the `after college' value of education.

Use/nonuse of drugs	Education worth			
	Little	Mild	Considerable	Row Tot.
Drug users	23(55%)-	58(64%)	27(69%)+	107(63%)
Non drug users	19(45%)+	32(36%)	21(31%)-	64(37%)
Col.total	42(100%)	90(100%)	39(100%)	171(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 1.97 (not significant) at 2 df..05>p>.001
+ indicates represents overrepresented frequencies.
- indicates represents underrepresented frequencies.

Stress that is related to the uncertainty of educations value after college is similarly shown in the table above, not to be related to use and non use of drugs, by the insignificant chi square value. However the percentages indicate a direction that is consistent with that one indicated in table 50. In table 49 drug users are underrepresented among respondents who experience `little' stress, but are overrepresented among those who experience `considerable' stress. Whereas drug users represent 63% of the respondents in the sample, they comprise up to 55% of those who experience `little' stress (underrepresented) but 69% of those who experience `considerable' stress (slightly overrepresented). Subsequently the reverse applies for non drug users, where they are slightly overrepresented (45%) among respondents experiencing `little' stress, but slightly overrepresented among those who experience `considerable' stress.

Hence consistent with results in table 48, drug users are slightly less likely to experience `little' stress, but slightly more likely to experience relatively `more' stress, than non drug users.

Table 50: Ambiguity about securing a job after college.

use/nonuse of drugs	Job search difficulties				
	Little	Mild	Considerable	Worrying	Row Tot.
Drug users	17(61%)	47(67%)	30(64%)	13(50%)-	107(63%)
Non drug users	11(39%)	23(33%)	17(36%)	13(50%)+	64(37%)
Col total	28(100%)	70(100%)	47(100%)	26(100%)	171(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 2.45 (not significant) at 3 df $0.05 > p > 0.01$.

Findings in the table above (table 50) are not statistically significant either. Moreover, the overrepresentation of drug users among respondents who experience `very much' of this kind of stress, is not consistent with the previous two tables. These findings in Table 50 show that 50% of respondents experiencing `very much' stress are drug users and therefore drug users, who comprise 63% of the respondents in the sample, are slightly less likely to experience much stress, than non drug users.

Table 51: Present financial stress.

use/nonuse of drugs	Financial stress: Little/ Mild	Average	Much	Very much	Row total
Drug users	16(50%)-	53(42%)-	26(65%)	12(68%)	107(63%)
Non drug users	16(50%)+	29(58%)+	12(35%)	7(32%)	64(37%)
Col total	32(100%)	82(100%)	38(100%)	19(100%)	171(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 2.87 (not significant) at 3 df 0.05 > p > 0.01.
+ Indicates overrepresentation, - Underrepresentation.

In table 51 the findings suggest no proper direction, concerning ` financial' stress among the drug users and non drug users, though among respondents experiencing `average' stress drug users are underrepresented (42%) while non drug users are overrepresented. This does not suggest any reliable direction. Besides, the chi square indicates that these findings are not statistically significant.

A scale, the `socio economic stress' scale was constructed from the items in the above tables.

Table 52: Item analysis for socio economic stress.

Item	Item total correlation	Alpha if item deleted
Career related stress	.92	.89
Education uncertainty	.39	.90
Job search difficulties	.89	.88
Financial stress	.60	.88

Alpha = .89

This scale is tested for undimensionality and reliability and the results in table 52 suggest that all the items are approximately unidimensional and reliable. Consequently we proceed with the analysis of this scale in relation to drug use or non drug use.

Table 53: Socio economic related scale.

Use/non use of drugs	Socio economic stress: Little	Mild	Average	Much	Very much	Row Tot.
Drug users	7(50%)-	25(56%)-	32(59%)	31(70%)	12(75%)+	107(63%)
Non drug users	5(42%)+	20(44%)+	22(41%)	13(30%)	4(25%)-	64(37%)
Col total	12(100%)	45(100%)	54(100%)	44(100%)	16(100%)	171(100%)

a. Figures in parenthesis represent column percentages
χ^2 = 3.52 (not significant) at 4 df $0.05 > p > 0.01$.
+ Indicates overrepresentation, - Underrepresentation.

Findings from table 53 clearly indicate that the direction expected in the association between socio economic related stress and use or non use of drugs is such that drug users are slightly more likely to experience 'much' stress while non drug users are slightly more likely to experience 'little' stress. For example the findings show that among those respondents who experience 'very much' stress, 75% of them were drug users while 25% of them (underrepresented) were non drug users. And among respondents who reported experiencing 'little' stress, 58% (underrepresentation) were drug users while 42% (overrepresentation) were non drug users. Similarly in relation to their marginal percentages drug users are overrepresented among respondents who reported experiencing much stress while non drug users are overrepresented

among those who experience 'little' stress. This direction indicated by findings in table 53, is consistent with the direction suggested by findings in table 48 and 49, and partially table 50.

However, this association between socio economic stress and use or non use of drugs is not statistically significant, according to the chi square result. As a result, we conclude that there is no association between socio economic stress and use or non use of drugs.

Notes and References

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CHAPTER SEVEN

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 CONCLUSIONS

Throughout our analysis we have attempted to examine the social factors that may be associated with drug use among college students. We have attempted further to confirm these factors by examining how they vary among drug using and non drug using respondents. From the study we gather that although some of the factors have been shown to be related to drug use, the same did not hold true among the student respondents in our sample. However peer relationships and religious attachment were shown to be significantly sensitive to drug use.

In relating social position with drug use, we sought to know the social position of our respondents' parents. This gave a reliable idea of the family's social position. In this study, Hollingheads' two factor index of social position, was essentially applied. The two factors were the occupational and the educational factors. Basically, these factors also give an idea about the family's socio-economic status (SES).

When we applied the occupational factors, our findings indicated that there was no relationship between parents occupation and the use or non use of drugs. This implies that the information about the different occupational positions held by our respondents' parents, does not probably indicate to us whether he/she is likely to be a drug user. Hence in each

occupational group of the parents, the students were as likely to abstain from drugs as they were likely to use drugs.

However when we applied the educational factor as an index of social position, an association with drug use emerged. Apparently, our findings indicated that a larger percentage of respondents whose parents attained high levels of education were drug users. These results imply that it is possible that parents' education carries with it varying attitudes and standards that can be manifested in their childrens' attitudes towards drugs. It is probable that children with parents who have attained higher levels of education are more likely to be drug users. This attitude which becomes favourable to drug use and manifests itself in the form of drug use is transmitted from the parents to their children, gradually and overtime. It forms in the children, from the attitude they receive from their parents.

Studies focusing generally on SES and delinquency have come up with widely varying findings. Many have found social class to be unrelated to delinquency (for example Akers 1964[1] and Stichcombe 1964[2]). However these findings are said to be inconsistent with major theoretical works regarding delinquency, which imply that delinquency is primarily a lower class phenomenon (Cohen 1955[3] and Cloward and Ohlin 1960[4]). While our study lends support to the idea that social position is related to drug use (educational factor and drug use), it does not suggest that drug use is a lower class phenomenon. This turns out to be quite inconsistent with other findings including studies in Kenya. For instance in his study on juvenile delinquency, Muga (1978)[5] found out that 60% of the juveniles' parents had attained

a level of education of between standard 1 and form 3, and this associates delinquency with low social position. However, concerning our study, we should remember that our sample of college students could yield anything different. Furthermore the implications for research are great.

Peer attachment was shown to be convincingly related to drug use. A larger percentage of our respondents reported to have been introduced to the drugs by their friends and also a larger percentage of drug using students reported that they had relatively many drug using close friends.

Introduction to the use of drug sets the initial stage to drug use so that for drug users it marks the beginning of drug use. Similarly, the introducers act as the source of learning how to use the drug. Usually, the introducer is a user of drug(s) too. From our findings, it was suggested that a larger percentage of our respondents were introduced to drugs by their friends. This finding is consistent with the findings in other studies. For example, in her study on khat use 1985,[6] Haji found that 52% of the khat users learnt their habit from friends, 16% learnt from the society, 11% from oneself, 7% from relatives, 12% from other sources while 2% could not remember the source. This study highlighted the relative importance of friends in the process leading to drug use, and this importance has been further confirmed by our study. Certainly, the introducing friend must be a drug user first, and as some of our respondents explained, a friend would request them to just try a drug. It is difficult to turn down a request from a friend, and therefore one could try

the drug. However, different other minor accounts of how a friend introduced our respondents to drugs were also reported.

Furthermore and in relative terms, drug users tended to have many drug using close friends. This tendency became much more apparent when we compared drug users and non drug users' approximate number of friends using drugs. Non drug users tended to have fewer drug using friends. A student who has many drug using friends, is in a situation that is favourable towards drug use. Hence if he had not started using drugs, this situation may enhance his initiation to drug use, and it may further favour sustenance of use. It is such a situation that prompted Haji to suggest that easy unstrained association between khat users abusers and non users, promotes its widespread acceptance and use. Surely, an association with drug users of any type of drug, promotes its acceptance and use too.

Concerning religion we set out to examine whether users of drugs in colleges were less committed to religion. We also compared their commitment to religion with the one of non drug users. Our findings indicated that drug using students tended to be less committed to religion than non drug using ones. Although all respondents, drug users and non drug users alike, insisted that religion is very important to them, a large percentage of drug users reported that they seldom attend church. Furthermore, a considerable number of them reported that religion is not very important to them. Overall, drug users strongly indicated that they were less committed to religion than non drug users.

Religious attachment refers to religious orientations of various sorts. However, a student who is strongly committed to

religion is likely to express attitudes and values that are consistent with religious teachings. It is common knowledge that religious teachings, with very few exceptions, forbid the use of drugs, especially irrational use. Hence drug users should be less likely to be committed to religion which disapproves of drug use. Similarly, an individual who is committed to religion, expresses certain values and attitudes that reflect his commitment. For this reason, it is unlikely that such a person would indulge in a form of behaviour that is inconsistent with these values. It is unlikely that such a person would indulge in drug use, a behaviour that contradicts religious indoctrination.

Our findings and conclusion on religious attachment are quite consistent with previous findings from other studies. For example, Yambo (1983: 42)[7] observed from his findings that among the youth in Nairobi and Kyaume, those who called themselves 'pagans' appear less restrained in their use of drugs than christians. This group of 'pagans' is composed of individuals who are not attached to any religious denominations and consequently, least committed to religion. In our study too, we found that all the respondents reporting to belong to no religion, were drug users.

Regarding educational attachment, our findings indicated that the variable is not sensitive to drug use. In our sample, neither drug users nor non drug users showed any differing pattern of attachment to education, according to the information they provided. According to the theory of social bond by Hirschi (1979)[8] which was elaborated by Jonson et al (1987)[9], an individual who commits much time and resources on education

(commitment to education) is unlikely to jeopardize this commitment. Hence the implication is that drug users are likely to be less committed to education than non drug users. This is because drug use is not only a socially disapproved behaviour, but also a behaviour that may adversely disrupt one's commitment to education.

Similarly an individual who attaches himself so closely to education endeavour is likely to have inadequate spare time for drugs. A commitment to education requires one to commit his/her time, money and other resources specifically for the purpose of education. If this happens, then the person has little spare time and money to spend on other activities, including drug use.

However, among college students, our findings indicated that educational attachment does not probably differ among users and non users of drugs. The explanation we may provide for this lies on a homogeneous characteristic of college students. These students represent a group of youth who performed exceptionally well in their previous examinations, so that by merit, they deserved a place in the few places offered by colleges. Therefore the students, have already shown that they are more committed to education, than the ones who did not make it to colleges of higher learning. Going by this arguement, college students are more or less equally committed to education.

In spite of this lack of a significant association between use or non use of drugs and commitment to education, our findings indicated that the magnitude of differences in commitment to education, among users and non uses of drug, pointed to the expected direction. Slightly larger percentage of drug users

were assessed to exhibit a low commitment to education, then non drug users. Among those students who exhibited a relatively high commitment to education, a larger percentage were non drug users than drug users (table 40).

Regarding parental supervision and stress our study did not find any association with use or non use of drugs. We expected drug using students to be inappropriately supervised or inadequately attached to their parents and for them to experience a relatively high degree of stress than non drug users. However this association was not non drug in our findings.

Concerning parental supervision, we expected from the discussion in the literature review, to find that drug using students were inadequately supervised by their parents, and inadequately attached to them too. This would be expected because proper parental supervision should achieve a high degree of conformity on the part of the children. Thus properly supervised children should restrain themselves from drug use. Although this association was not indicated in our study, the direction indicated by the magnitude of differences in percentages, showed that drug users were relatively less attached to their parents than non drug users.

Concerning stress, our item responses were designed to reflect the extent subjects perceived uncertainty or ambiguity about their career, education and financial expectations. It is this environmental stresses which often leads to internal stress and are invariably followed by abnormal reactions, drug use being one of such reactions. However, in our sample, there was no difference in the degree of stress among drug users and non drug

users. It is true that stress varied widely among the respondents according to their perception of stress related to socio-economic expectations. Nevertheless, this was no indication whatsoever, that drug users experienced any more or less stress than non drug users. As a result, and according to our findings, we concluded that there is no association between stress and use or non use of drugs among college students.

Regarding our selected cases, they further confirm our findings on the relative importance of the peer group in the behaviour leading to drug use. In all the cases, the respondents explain in detail how they started using drugs, and all of them explained how peer pressure played a great part. They either explained that they were introduced to the drugs by their close friends, or that a great number of their close friends whom they closely associate with, use drugs too. In addition, it became clear that the respondents find it more comforting, to use drugs together with their drug using friends. In brief, from the explanations provided by our cases, the peer group emerged as an important factor associated with drug use, by introducing drugs and sustaining its' use.

7.2 RECOMMENDATIONS

All along, this study has laid great emphasis on the social factors associated with drug use, an emphasis based inter alia, on the notion that social influences that impinge on the youth exert enormous influence on the eventual behaviour of the youth.

Hence on account of the dominant social influences that bear upon man, "man is not born corrupt, but is corrupted by the world". Likewise, man is not born a drug user, but is moulded into one by societal influences. Therefore, to explain social phenomena like drug use, we should seek to know which factors in society are likely to be associated with it.

Taking into account all aspects of our study, we clearly see that the social influences exerting on the youth in college to use drugs, are many and varied. Evidence from the findings strongly indicate that peer influence and religious commitment are significant factors associated with drug use. While evidence indicated that parental supervision, stress and education commitment may not be significant factors explaining drug use among college students, our position remains that they are worth taking into account too. Nevertheless, because it is the interplay of all these social factors en masse that is important, we wish to strongly recommend that particular attention should be paid on the peer group and religion.

Nevertheless, any recommendations must first of all consider the weight of the challenge to arrest the problem of drug use. Total elimination of the problem is an almost impossible task, though even controlling the situation is difficult due to some other social factors that are rigidly posed against such efforts. Consider for example the fact that the Ministry of health has embarked on a campaign designed to warn the public of the health consequences of smoking, on one hand. On the other hand, it is generally observed that despite this campaign, cigarette smoking is on the increase.

Worse still, the mass media is littered with the most captivating and sometimes fascinating advertisements that are aimed at promoting the use of alcohol and cigarettes. These advertisements are a fetter to drug control efforts. Nevertheless, the prospects for success abound, and examples of successful campaigns in the Western world , exist. In the West, where the problem started much earlier, the trend is such that for example, smokers are kicking the habit at a fast rate. And a majority of the people are frowning at the habit. Almost everywhere one goes, one is reminded that this and that place is smoke-free. Hence smokers become more and more isolated. In airports, restaurants hotels e.t.c., smoking is absolutely prohibited.

Certainly, if such campaigns were adopted elsewhere with appropriate modifications, they can achieve the desired goal - a declining incidence of drug use among the youth. The quest for this goal is a herculean task, and it lies in the hands of the entire society.

7.21 Implications for Society

Broadly, the challenge to reduce the incidence of dug use requires the efforts of the whole society. Focus should be basically directed to the peer group and the youth who naturally seek peer company. Measures designed to achieve the goal will vary from social control measures to awareness campaigns. The aim here however, should be to capture the attention of the youth, who will hopefully become responsible enough to choose to reject

the rebellious characteristics of the peer group. We know that the peer group is an indispensable social group that plays crucial roles for the youth, and sometimes the youth feels more secure in the group than in the family. Hence, there is always the possibility that the youth may end up being greatly attached to the group . In such a case, he/she will tend to conform to the peer group standards. For this reason, members of the society must strive to instill discipline on the youth , who is after all, vulnerable to indiscipline. This may be achieved through the efforts of the family, education institutions and policy makers.

7.22 Implications for the family

The family must be fully involved in the upbringing of their offspring from childhood to adulthood, without delegating the whole responsibility to other institutions. It is the responsibility of the parents to impart discipline, inform and educate children in a manner that supplements, reinforces and clarifies that which the child acquires from other sources. This function is fundamental and crucial for society, and it must be appropriately carried out until the family dissolves. Often, families have given up educating roles entirely to the schools, and religious orientation roles to the religious institutions. This only reflects the failure of the family to execute its roles, leaving the children less attached to the family unit. Consequently, children seek solace from the peer group, which they get attached to immensely. In a word, attachment to the family should be promoted and sustained by the parents, a role

for the family that can not be adequately substituted by other institutions.

7.23 Implications to educational institutions.

The principle function of the school is to inform, educate and the school children. However, it s also in the school that children form influential peer groups, and encounter contradicting standards. A great deal of children also start experimenting with drugs at school going ages, such that educational institutions are constantly dealing with potential drug users and abusers. Furthermore, while carrying out its schooling obligations, the school gets a substantial high contact time with the students. This places it in a good position to mould the students behaviour.

Hence the school must commit itself more on the integration of the students by doubling its efforts, and streamlining its processes. For example, the school must thoroughly inform the students about all aspects of drug use, and in fact social problems in general. This will assist the youth to rationally select to use or not to use drugs, fully aware of the consequences of either decision. The school will therefore have to ensure that ignorance is not given as the excuse for drug use, by creating awareness of the drug problem.

Similarly, overcrowded schools should be discouraged. They are undesirable for integrating students into school life. Schools should ran on capacities that can be sufficiently administered. Teachers should not be overstrained and students

under exposed to the schools activities.

Lastly, the school can be effectively used as the medium for campaigns against drug use, particularly among the youth. Whether educative or informative, campaigns can readily find disciplined and organised listeners in schools, who also happen to be quite vulnerable to the temptations of the world. It is in this line that, for instance, the promotion of religious values can be stepped up among the students, from an early age.

7.24 Implications for policy makers

Although it is laudable that the campaign against dug use is picking up in Kenya, these efforts should be beefed up. In most Western countries, drug awareness campaigns have proved successful, where for instance, numerous smoke free places or "environments" have ben created. This reminds everybody of the undesirability of smoking. Such campaigns, which should include educational and informative elements, are desperately needed in Kenya. Some of the tactics that can be employed are use of posters, mass media campaigns and creation of smoke free environments.

In a nutshell, the major task of policy makers will be to design policies that would involve all institutions while working en rapport to achieve the targeted aim. The policies have to reach out all the youth, more importantly, through the family and educational institutions. The strategies have to first create an awareness among the general public. And finally, constant efforts have to be made to stimulate dialogue among members of the public

in the community, through which possible approaches to the issue will emerge.

However, during the implementation of all these strategies, such programmes will have to be mediated by a specialised body whose main task would also include monitoring and evaluation of the programmes. Currently, there exists a Kenya Youth Association which caters for the youth, and it is such a body that can be given the task of implementing preventive educational programmes. Such a body can also coordinate the efforts of the number of NGO's dedicated to improving the welfare of the youth, e.g. OFADAT and Undugu. The body should be a supreme committee for activities covering the youth and their associated problems in the country.

7.25 Implications for further Research.

Findings in this study have indicated that social position is related to drug use among college students, such that students from a higher social positioned family are probably more likely to use drugs than those from a lower social positioned family. This may hold true given the fact that the study focused on college students. However, what we may need to know from future studies is a clear explanation about the association between social status and drug use, probably among different social groups. In this case, social status should be conceptualised more precisely.

According to the findings in this study, it cannot be concluded that stress and parental supervision are associated

with drug use. However, general literature and a priori observations suggest that drug users are more likely to experience a higher degree of stress than non drug users. Users are also more likely to have received inappropriate parental supervision. Because our findings indicated such a tendency as well, much more precise research will do well to clearly establish the relationship existing thereof. Perhaps what is need is a research that will principally adopt a socio-psychological perspective.

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APPENDIX 1

CASE STUDIES

CASE 1

Our first case is a male student in the University of Nairobi, where he is a second year student. He uses cigarettes, alcohol, khat, marijuana and piritons. He tried all these drugs for the first time, before he was 10 years old. He said that he started smoking cigarettes out of sheer curiosity, and so far as he could remember, that is how he started using the other drugs too.

By this moment he said he felt like smoking mostly after meals, when under pressure and when excited. About marijuana he never gets a specific urge to smoke it, but he just decides that it is time to take it. And when he takes the drug, he feels very nice and stimulated, although he reckons that when he takes it on an empty stomach, he feels some sort of nausea or depression. The effect of marijuana also depends on the social situation. When he smokes it alone, he sometimes feels depressed or he may meditate exceedingly. However, when taken with other friends it is exciting. Sometimes when he wants to avoid using marijuana, he drinks alcohol. Apparently he uses alcohol whenever he feels idle and he has money to purchase it. And when he seeks solitude and does not want to use marijuana or alcohol, he chews "miraa". He is a regular user of all these drugs, and an occasional user of piritons.

He also reported that he has many friends (close friends) who use alcohol and cigarettes and several who use marijuana and khat. Moreover his first-born brother uses all the above drugs, and in fact, chews khat more often. In a family of four brothers and 3 sisters, he is the third born child, and their parents are alive but have separated. From his report it was clear that his parents were of low class status with little education, and were at the time," peasants". His mother uses alcohol and so does his father, who also smokes cigarettes.

On school performance our case reported to be getting good grades although he does not intend to pursue further education after college. He also indicated that he is not attached to any religious denomination whatsoever.

CASE 2

Our second case is also a male student, 21 years of age, and a student at Kenyatta University. The first time he tried smoking a cigarette he was 17 years old and up to this moment he still smokes. He smokes about 10 cigarettes per day. The first time he tried smoking, he found it quite unpleasant. He coughed a lot and thought it left a bad taste in the mouth. However, he continued smoking , and nowadays he takes cigarettes especially when idle and has nothing to do. After smoking he finds it difficult to explain how he feels. Now he wants to give up smoking.

At the age of 20 years, he tried alcohol for the first time, and since then, he has not taken any more alcohol. He is the last born in a family of 3 brothers and 5 sisters. His parents who are

lowly educated (primary level) are devoted christians who eke out a living as 'peasants'. Our case also attends church as often as once a week, in a christian church. He dedicates about 3 to 4 hours on schoolwork per day and has ambitions of pursuing further education. Before joining the university he used to participate in athletic games.

CASE 3

Our third case, a male student at the University of Nairobi, is a second born in a family of seven brothers and two sisters. His father, a graduate, runs a well off business, while his mother teaches in a college. None of his parents use any type of drug to his knowledge.

This student reported that he attends church very few times a year. He has tried cigarettes, alcohol, miraa, marijuana and a sleeping pill (valium). He first smoked a cigarette at 16 years and at the moment, he used to take about four cigarettes a day. He used to smoke a lot and he believes he is addicted; Now he is in the process of quitting, and that is why he smokes relatively less. However, smoking still relaxes him, and he likes it when he is tired. Many of his friends smoke.

At the age of 14, he first tried alcohol, which though it was bitter ("changaa") made him feel jovial and moody after taking it. Nowadays, he gets a little time to drink alcohol with friends because it is fun. He has also tried Marijuana, first at the age of twenty two, but now he has stopped. He tried

"miraa" at 16 years. The first time he tried valium (at the age of 13 years he stole it from his father's locker.

He attributed initial use of most of these drugs to pressure from his friends. He particularly dislikes the way peer pressure led him to smoking marijuana. He regretted that most of his friends use cigarettes, alcohol, and cannabis. He plays rugby and football, but in his free time, he lifts weights as a form of leisure. After college, he is almost sure and decided, that he will join the armed forces, because of his remarkable physique and involvement in physical activities.

CASE 4:

Case four is a 21 year old student at Kenyatta University. He is third born from a low class family (both parents are 'peasants') with a strong christian background. He has two brothers and five sisters. He attends church at least once a week.

Although he smokes about two cigarettes a day, he seriously wants to quit. The first time he smoked, he was undergoing the military style pre-university training at National Youth Service in Gilgil. For him, smoking was quite pleasant during that period of training, because it used to relieve the stress associated with the training. Nevertheless nowadays smoking does not make him feel anything, and he does not feel like smoking at specific moments. He has many friends who smoke and drink. He also drinks alcohol, but occasionally. The first time he tried it, he was introduced to it during a christmas party three years

ago. He is also contemplating giving up alcohol. Only his fourth born brother, uses cigarettes and alcohol too.

CASE 5:

She is a student at Kenyatta University, presently going through her final year of the three year course. From a family of three brothers and two sisters, she is the fifth- born.

Since she first tried smoking at 18 years of age, she has retained the habit and presently she smokes at least one cigarette each day. Smoking, she said, makes her feel relaxed. She could not give a concrete explanation of why she smokes, but indicated that she does it for pleasure. When she is all alone, or with a (girl) friend who smokes too, particularly in the evening hours, she is in a situation that calls for smoking.

At about 18 years of age, she also tried alcohol (beer), and she still uses it. She drinks beer just a few times a month, particularly over the weekends, when she has gone out for an "evening out" such as a disco, party or a get together. Although alcohol tastes unpleasant for her, she can tolerate it in small quantities of about three bottles of beer and only in the above mentioned situations. And whenever she is drinking alcohol, she also has to smoke, and this combines well with dancing in a disco, for example. Her parents are aware that she takes alcohol occasionally, and they have not shown anything against this.

About a year ago (at 22 years of age) she tried khat which she was 'passed over' by friends. These drugs she has used, she

says that it is due to her friends who introduced her. She also added that none of her brothers and sisters use any drugs, so far as she knows.

CASE 6:

Another female third year student at Kenyatta University was our sixth case. She is 22 years old. She is the second-born in a family with one brother and six sisters. She started smoking at about 19 years of age, and to date, she smokes about five cigarettes a week. Sometimes, when she feels tense for example after a difficult exam paper, she relieves herself by smoking. She likes to smoke when she is all alone in her room, lying on her bed, to rest.

Since she was introduced to alcohol (beer) by relatives during a function, at about 19 years of age, she still uses it but occasionally. She only drinks in parties and such like functions which, after all, are occasional. Whenever she drinks, she hardly takes three bottles of beer.

PENDIX II

QUESTIONNAIRE

This research is being carried out by a postgraduate student from the University of Nairobi, for academic purposes. All your views will be treated in confidence, and you should not write your name on the questionnaire. Please answer the questions honestly and as simply as possible, and your participation will be highly appreciated. Thank you.

1. Age .....
2. Year of study at college .....
3. Sex: Male ( ) Female ( )
4. How many brothers and sisters do you have?
   Brothers .....: Sisters.....
5. What is your birth order? (i.e. 1st born, 2nd born etc.)
6. What are your parents occupation?
   Father.....
   Mother.....
7. About how much land do your parents own in the rural area(s)? (tick where appropriate)
   less than 1 acre ( ); 2 - 4 ( );
   4 - 10 acres ( ) 10 and more ( ).
8. a) Do your parents live together? Yes ( ); No ( ).
   b) If "No", are they separated ( ); Deceased ( ); Divorced ( ).
9. What is the religious affiliation of your parents?
   Father.....
   Mother.....
10. What is the highest education level of your parents?

Father.....

Mother.....

11. Do you talk to your mother about your problems?

Very often ( ); Often ( ); Sometimes ( ); Rarely ( )

Never ( )

12. Do you talk to your father about your problems?

Very often ( ); Often ( ); Sometimes ( ); Rarely ( );

Never ( );

13. In your free time, do your parents know where you are?

Yes, always, ( ); Yes, often ( ); Yes, Sometimes ( )

No ( ).

14. How useful do you find your parents advice?

Very useful ( ); Useful ( ); Slightly useful ( ); Not useful ( ).

15. In your opinion, how do you view the way your parents supervise you?

Very appropriate ( ); Appropriate ( ); Average ( ); Inappropriate ( ).

16. What is your religious affiliation? ----------

17. How regularly do you attend church?----------

More than once a week ( ); Once a week ( ); Few times a month ( ); Few times a year ( ); I don't ( )

18. How important is religion in your life? Very important ( ); Important ( ); Average ( ) ; Not important ( ).

19. How much time do you spend on your school work per day? after school? Less than 1 hour ( ); 2 - 3 hours ( ); 3 - 4 hours ( ); More than 4 hours ( ).

a)What sort of grades do you receive at school?

Excellent ( ); Very good ( ); Good ( ); Fair ( )

Poor ( )

b)Do you intend to pursue further education after college?

Yes ( ); No ( ).

21. Considering your best friends in college, about how many use the following drugs.

	None	Very Few	Several	Many
Cigarettes	( )	( )	( )	( )
Alcohol	( )	( )	( )	( )
"Miraa"	( )	( )	( )	( )
Marijuana	( )	( )	( )	( )
Others Name ----------	( )	( )	( )	( )

22. If your father uses any of the following drugs, please indicate by a tick, how often he uses the drug(s).

	Never	Sometimes	Often	Daily
Cigarettes	( )	( )	( )	( )
Alcohol	( )	( )	( )	( )
Marijuana	( )	( )	( )	( )
"Miraa"	( )	( )	( )	( )
Others (Name) ----------	( )	( )	( )	( )

24. What attitude have you received from your parents about the use of the following drugs:

	Its O.K. to use	Occasional use is harmless	Its harmful to health	Its wrong to use
Cigarettes	( )	( )	( )	( )
Alcohol	( )	( )	( )	( )
Marijuana	( )	( )	( )	( )
"Miraa	( )	( )	( )	( )

25. What attitude have you received from your friends about the use of these drugs?

	Its O.K. to use	Occasional use is harmless	Its harmful to health	Its wrong to use
Cigarettes	( )	( )	( )	( )
Alcohol	( )	( )	( )	( )
Marijuana	( )	( )	( )	( )
"Miraa"	( )	( )	( )	( )

26. (a) Have you ever smoked any cigarette in your lifetime?

Yes ( ); No ( ).

(b) Estimate how old you were when you first tried smoking.

Never tried ( ); Less than 10 years ( ); 11 - 14 ( ); 15 - 20 ( ); Above 20 years ( )

(c) Have you smoked any cigarette in the past 12 months?

Yes ( ); No ( )

(d) Who introduced you to smoking cigarettes?

Family member or relative ( ); Friends ( ); Oneself ( ); Can't remember ( )

(e) Have you smoked any cigarette in the past month?

Yes ( ); No ( )

IF NO ABOVE, GO TO QUESTION 27

(f) If yes above, estimate the number of times smoked cigarettes in the past month? About a packet daily ( ); About 10 daily ( ); Less that 10 daily ( ): Several times a week ( ).

(g) When you first tried smoking cigarettes, what did you feel? Very pleasant ( ); Pleasant ( ) Nothing ( ); Unpleasant ( ); Very unpleasant ( ).

(h) Nowadays, after smoking cigarettes what do you feel

(i) What times do you really feel like smoking a cigarette?

(j) Would you give up smoking if given the chance?

(k) Why do you smoke ----------

(l) Do your parents know that you smoke cigarettes?

Yes ( ); No ( )

(m) What is their reaction? ----------

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27. (a) Have you ever drunk any alcohol? (beer, wine, chang'aa, spirits, busaa, "miti", etc.)

Yes ( ) No ( ).

(b) Estimate how old you were when you first tried alcohol? Never tried ( ); Less than 10 years ( ) 11 - 14 years ( ); 15 - 20 years ( ) Above 20 years ( )

(c) Have you drunk any alcohol in the past 12 months ?
Yes ( ); No ( ).

(d) Who introduced you to drinking alcohol?

Family members or relatives ( ); Friends ( ); Oneself ( ); Can't remember ( )

(e) Have you drunk any alcohol in the past month?

Yes ( ); No ( ).

IF NO ABOVE, GO TO QUESTION 28.

(f) If yes above, estimate the number of times you drunk alcohol in the past month. Daily ( ) Weekly ( ); Few times a month ( ); Once ( )

(g) When you first had a drink of the alcohol, what did you feel? Very pleasant ( ); Pleasant ( ); Nothing ( ); Unpleasant ( ) Very unpleasant ( )

(h) Nowadays, after drinking alcohol, what do you feel?

(i) When do you mostly feel like drinking alcohol?

(j) Would you give up drinking alcohol if you get the chance?

Yes ( ); No ( ).

(k) Do your parents know that you drink alcohol?

Yes ( ); No ( ).

(l) What is their reaction? ----------

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28 (a) Have you ever chewed "Miraa" in your lifetime?
Yes ( ); No ( ).

(b) Estimate how old you were when you first chewed "Miraa".
Never tried ( ); Less than 10 years ( ); 11 - 14 years ( ); 15 - 20 years ( ); above 20 years ( ).

(c) Have you chewed any "Miraa" in the past 12 months?
Yes ( ); No ( ).

(d) Who introduced you to chewing miraa?
Family member or relative ( ); Friends ( ); Oneself ( ); Can't remember ( ).

(e) Have you chewed any miraa in the past month?
Yes ( ); No ( ).

IF NO ABOVE, GO TO QUESTION 29

(f) If yes above, estimate the number of times you chewed miraa, in the past month. Daily ( ); Weekly ( ); Few times a month ( ); once ( ).

(g) When you first chewed miraa, what did you feel ?
Very pleasant ( ); Pleasant ( ); Nothing ( ); Unpleasant ( ); Very unpleasant ( ).

(h) Nowadays, what do you feel after chewing miraa?

(i) When do you mostly feel like chewing miraa?

(j) Would you give up chewing miraa if you get the chance ?
Yes ( ); No ( ).

(k) Do your parents know that you chew miraa?
Yes ( ); No ( )

(l) What is their reaction ----------

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29. (a) Have you ever tried marijuana in your lifetime?
Yes ( ); No ( ).

(b) Estimate how old you were when you first tried marijuana.
Never tried ( ); Less than 10 years ( ); 11 - 14 years ( ); 15 - 20 years ( ); Above 20 years ( ).

(c) Have you smoked marijuana in the past 12 months?
Yes ( ); No ( ).

(d) Who introduced you to marijuana? Family member or relative ( ); Friends ( ); oneself ( ); can't remember ( ); Drug pusher ( ).

(e) Have you smoked marijuana in the past month ?
Yes ( ); No ( ).
IF NO ABOVE, GO TO QUESTION 30

(f) If yes, above, estimate the number of times you smoked marijuana in the past month. Daily ( ); Weekly ( ); Few times a month ( ); Once ( ).

(g) When you first smoked marijuana, what did you feel?
Very pleasant ( ); pleasant ( ); Nothing ( ); Unpleasant ( ); Very unpleasant ( ).

(h) Nowadays, what do you feel after smoking marijuana?

(i) When do you mostly feel like smoking marijuana?

(j) Would you give up smoking marijuana if given the chance?

Yes ( ); No ( ).

(k) Do your parents know that you smoke marijuana?

Yes ( ); No ( ).

(l) What is their reaction? ----------

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30. a) Are there any other drugs mentioned above, that you have taken without a doctor or health worker telling you to do so? (e.g. opium, heroin, sleeping pills, cocaine, brown sugar') Yes ( ); No ( )

(b) What is its name ? ----------

(c) Who introduced you to it? ----------

(d) How do you get it? ----------

31. Which form of extra-curricular activities (sports, indoor games etc.) do you take part in?

32. Which kind of leisure (films, discos, watching football etc.) do you like ----------

33. (a) Does any of your brothers and/or sisters use any of the discussed drugs? No ( ) Yes ( )

(b) If yes, please indicate his/her birth order (i.e. 1st born, 2nd born etc.) and the drugs they use ----------

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34. Does your mother use any of these drugs? No ( ) Yes ( )

which drugs?----------

35. After completing college, do you think you will get th "good" kind of job you would like? Most certainly (Certainly ( ); perhaps ( ) Unlikely ( ) Very unlikely ( ).

36. Do you think education will help you get a "good" job? Yes, very much ( ); Yes ( ); Partly ( ); No ( ); Not al all ( ).

37. In your opinion, how long do you think it will before you ge a "good" job? very long ( ); Long ( ); Sometime ( ) Short time ( ) Very short time ( ).

38. Given your present needs as a student, how do you view your financial position? Its very O.K. ( ) Just O.K ( ) Average ( ) Poor ( ) Very Poor ( ).

39. Considering your best friends, how much do you enjoy their company? Very much ( ) Much ( ) Average ( ) a little ( ) very little ( ).

40. Do you have any other source of income, apart from your studer allowance? No ( ) Yes ( ) Which one(s) parents ( ) Brothers/Sisters ( ) Part-time jobs ( ) Others ----------

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