

UNIVERSITY OF CAPE COAST

DRUG USE AND ITS PERCEIVED EFFECTS ON SMALL SCALE MINE
LABOURERS IN ASUTIFI NORTH DISTRICT OF THE BRONG AHAFO
REGION OF GHANA

BY

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DECLARATION

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

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Supervisors' Declaration

We hereby declare that the preparation and presentation of this thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

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ABSTRACT

There is wide spread perception of drug use by small scale miners in their activities. The problems of drug use and its impact on an individual have been noted in most drug research works. In Ghana, drug research studies over the years have concentrated on second cycle institutions, certain communities and institutions. This study sought to describe the nature of drug use and the perceived effects of the drugs on small scale mine labourers of Asutifi North District of Brong-Ahafo Region. To achieve this purpose, Snowball sampling technique was selected as the best sampling technique considering the dispersed and difficult nature of small scale mine labourers in their locations. A sample size of 120 small scale mine labourers was selected for participation.

The findings revealed that drug use among small scale mine labourers was very frequent with marijuana being the most frequently used drug. The study further revealed that the drugs were obtained from their immediate surrounding mine shops and drug peddlers at the mining sites and the cost of the drugs was relatively low. Additionally, multiple reasons were found to be attributed to the use of the drugs rather than a single reason. Finally, perceptions held by the small scale mine labourers on the effects of drug use on their health, work, family and friends were generally negative. There is the need for drug educators to direct their attention to this sector of the population of which most are the youth and educate them on mainly the long term effects of drug use on an individual.

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DEDICATION

To my wife, Mrs. Lydia Ohenewaa Donkor and my family for their inspiration
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CHAPTER ONE

INTRODUCTION

Background to the Study

It is the dream of everyone to be healthy and strong to have a longer life. Due to certain uncertainties in life some people tend to act against this dream of being healthy and staying long on earth. For most people whenever they seem dejected and have perceptions that no one is willing to listen to their problems, they resort to the use of drugs. The International Narcotics Control Board [INCB] (2009) report indicates that drug use across the world is on the rise; however, most people do not view drug use without prescription as a problem. For example, when one takes one or two tablets of a painkiller (eg. paracetamol) without prescription to ease a headache, it is considered “normal”. Interestingly, there are some medications that are being used by people in such situations that constitute problems society must deal with.

According to Oakley and Ksir (2002) drug use is not a new phenomenon and that humans have been using alcohol and plant derived drugs for thousands of years. They added that a record of history of highly developed ancient cultures shows that psychoactive plants played an important economic and religious role and that people in ancient cultures had always overused, misused or abused drugs. In recent times, cultural revolutions have influenced attitudes and behaviour regarding drugs and drug use. To meaningfully evaluate the extent to which people are using drugs, as well as

the impact of drug use on people requires finding answers to questions such as: “Who is taking drugs?”, “What drugs are being taken?” “When and where are the drugs used?” “Why do people take the drug?” and “how much of the drugs are being used?”

Drugs can be classified into two main groups, namely legal drugs and illegal drugs. According to the data from the Census Bureau, Department of Commerce (1980) in the United States of America, legal drugs can be classified into four classes based on when and where it is being used. These include Social drugs, Prescription drugs, Over-the-counter drugs (OTC) and Miscellaneous drugs. Social drugs are usually taken to help people relax on occasions to give a feeling of having more energy. Examples of social drugs include alcohol, tobacco, coffee, tea and cocoa. Prescription drugs are intended to be taken under the direction of a medical doctor. Prescription drug abuse occurs when individuals take medications prescribed for people other than themselves and or drugs prescribed for them in a manner or dosage other than what has been prescribed. Prescription drug abuse therefore includes taking drugs prescribed for a friend or relative to get high, treat pain or for the purpose of enhancing learning. Examples of prescription drugs include Morphine sulphate, Librium and Codeine sulphate. Over-the-counter drugs are those that can be purchased without prescription and are commonly used to treat symptoms of common illnesses that may not require the direct supervision of a physician. Over-the-counter drugs relieve pain, aches, and itches and sometimes cure some minor ailments. Examples of OTC drugs include laxatives, sedatives, analgesics, and antacids. Miscellaneous drugs do not fall under any of the above classification but are used as drugs for different

purposes. Examples of miscellaneous drugs include aerosols, nutmeg, and morning glory seeds. Illegal drugs include marijuana, cocaine, heroineee, Quaaludes, methamphetamine and hashish (Oakley & Ksir, 2002).

According to Sussman and Ames (2001) drugs can also be classified as:

1. Stimulants: drugs that boost alertness and increases activity of the central nervous system. Examples include tobacco, caffeine, amphetamines and methamphetamines.
2. Depressants: drugs that works by reducing the function of the central nervous system. Examples include benzodiazepines, alcohol and barbiturates.
3. Opiates/Narcotics: drugs that boost alertness but reduce metabolic rates. Examples include opium, cocaine, morphine, codeine and heroine.
4. Hallucinogens: drugs that works by producing sensory hallucinations. Examples include lysergic acid diethylamide (LSD), mescaline, ketamine and phenylcyclidine (PCP).
5. Cannabis: drugs that boost alertness and alter the five senses of its users. Examples include marijuana, hashish oil and bhang.
6. Volatile solvents: substances that produce a combination of the effect of the other groups, Examples include glue, nail polish, gasoline, aerosols and volatile nitrates.

A study by Kandel and Faust (1975) showed that most high school students begin drug use with beer or wine and move on to hard liquor, cigarettes or both culminating in the use of marijuana. Some young people, however, graduate into using illicit drugs. One possible reason for alcohol and tobacco serving as gateway substances as cited by Kandel and Faust, is the

easy accessibility and availability of the drugs to young people. Abudu (2008) indicated that most of drug addicts started smoking from their adolescence and as they grow older they seek new thrills and gradually go into hard drugs. However, Oakley and Ksir (2002) suggest that young men who use hard drugs do so because they have chosen to identify themselves with a deviant subculture. This group frequently engages in a variety of behaviours not condoned by the larger society but acceptable within their group. Other reasons suggested by Oakley and Ksir include rebellious behaviour especially among young people. Most times adolescents try very hard to impress other people and sometimes may find it difficult to impress their own parents therefore may try to find a drug that can energise them to impress others. Reinforcement behaviour of the drug can also influence an individual to take drugs and that most psychoactive drug users have the tendency to increase the frequency or amount of use.

There may be more reasons for the use of drugs depending on where and when it is used. International Narcotic Control Board [INCB] (2009) indicated that multiple factors contribute to drug use and abuse amongst young people. For example, factors that influence young people to begin the use of drugs include personal factors, family factors, social factors, gender factors and community factors. Abudu (2005) also listed parental neglect of their children, prevalence of drug in communities, pathological background (such as broken homes, illegitimate relationships, alcoholic parents), peer influence, imitation of film stars, media adverts, ambition, urbanization and unemployment, ignorance of the dangers of drug use, and alienation as some of the possible factors that may influence drug use.

In Ghana, the Narcotics Control Board [NACOB] is the agency responsible for controlling drug use and trafficking. Owusu (2011) report in the “Daily Graphic” of a speech delivered by the acting executive secretary of NACOB on the state of drug use menace in the country. He noted that cases of drug use such as cocaine, heroine, cannabis, and alcohol has increased in the country. He further indicates that statistics from the Pantang Psychiatric Hospital in Accra have shown that a number of the youth within the ages of 15-20 years who are involved in drug use kept increasing from 2003 to 2010. There were 145 cases in 2003 compared to 767 cases in 2010, an average percentage increase of 61% annually. He added that there has been an increase in the number of girls getting involved with drugs for economic reason such as ‘pushers’ and prostitution. In addition, he also indicated that there was an increase in geographical coverage of use of all drugs in the country indicating that in the past only nicotine, alcohol and cannabis had national coverage usage, moreover, narcotics like cocaine, heroine and their various combinations and derivatives that were available and only used in the cities of Accra, Kumasi, Takoradi, and Sekondi were now available and being consumed in all districts of Ghana.

According to Ametepey (2010) Ghana is currently seeing a devastating increase of people who use and abuse drugs and subsequently become addicted to it. Dr. Dodoo (as cited in Ametepey, 2010) stated that it is about time the universities and the health services collected good quality baseline information on the extent of drug use in the country. He added that when that is done then in subsequent years, it will be easier to know whether the drug problem is reducing or increasing. He further noted that the effects of

drugs and alcohol on the society are disastrous, millions of lives have been ruined and many lives ended before their time, careers and jobs have been lost, people have been injured, savings have been squandered, family have broken up and some have lost everything they had including their sons and daughters through the use and abuse of drugs.

Drug use and abuse has serious consequences on the health of the users, social life, work and employment, crime upsurge, development and even on education. Alcohol and drug abuse does not only affect the individual concerned, but also endangers the circle of people surrounding the abuser, and has the potential to destroy the person's career and relationships. Alcohol impairs the brain's proper functioning. It reduces the ability to make sound judgments and decisions, and increases the likelihood of mistakes through the loss of spatial awareness and control of the body. As heavy drinkers or drug users become more unreliable, their absenteeism increases while their productivity diminishes. While these issues will have a negative impact on any workplace over time, they are particularly damaging in industries where employees' physical safety may be at risk from others, such as in construction or distribution industries (Arthur, 2009).

In a study on the consequences of drug use on an individual, there were multiple responses noted as the possible problems of dependence on drugs (whether licit or illicit) caused especially from the use of one or a combination of drugs. Loss of respect among other things is a major problem resulting from drug dependence (61%), mental disorder at a high or low level (50%) and being useless to ones family and friends (49%) are the responses with the highest percentage. Other responses include wastage of funds and property

(45%), loss of job due to instability (38%), truancy and absenteeism (36%), loss of genuine friends (30%), a case with the laws of the land (30%), diseases of the heart and liver (30%), weight loss, nervousness and a desire to steal (23%) just to get the drugs to use are common major problems encountered while being dependent on drugs (Omage & Omage, 2012). These entire effects pose a great threat to the security, social and economic aspects of the country.

Statement of the Problem

In recent times, there have been several concerns raised on the issue of drug use by the youth and the impact of this drug usage on the health of the drug user as well as its socio-economic dimensions. Studies have shown that there are several health and social consequences of drug use which includes mental deterioration, damage to organs of the body, permanent damages to fetuses when the abuser is pregnant, convulsions, death, motor skills impairment, accidents due to distorted perceptions, loss of appetite and nausea, drowsiness, and excessive sexual drive, problems with peripheral nervous system and problems with lungs, heart and digestive system (Anitei, 2007; Newcomb & Bentler, 1988; Sussman & Ames, 2001). According to Ametepey (2010) drug use among the youth in Ghana is on the rise. The article report that there are about 14-22 million cannabis abusers, 16-34 thousand opiates addicts and 64-83 thousand cocaine users for the population aged 15-64 in the West Africa Region in 2008 and the rate of use and abuse of drugs by the youth is higher than the world average especially for cannabis use which went up by 12% for users aged between 15-64 (Ametepey, 2010). The damage caused by drug abuse and addiction by people leads to over burdened

justice system, strained health care system, loss of productivity as well as environmental destruction (Osabutey, 2012).

In the past, drug abuse was a problem that was seen to be highly concentrated amongst the youth in the urban centres of Ghana, but in recent times, the issue of drug use and abuse has become a national canker which continues to find its way into the social fabric of our society. The consumption rate of drugs such as marijuana and cocaine has been increasing steadily while the trade in illegal drugs has become a rife in almost every part of the country and their target audience has been the youth (Ametepey, 2010). Yet, basic statistics about the extent of drug use in the country is not available. The substance abuse problem in Ghana is no different from other countries though there may be variations in the extent of the problem. Currently, use and abuse of drugs have expanded to include the youth. This gives evidence that the people mostly affected are the young and strong who can contribute effectively to the economy of the country. Increasing youth involvement in substance use and abuse is a major threat to national development, family stability and social security (Osabutey, 2012). This indicates that the youth need to be protected.

Small Scale Mining (SSM) is a sector that employs thousands of the youth in Ghana. Before the passing of the PNDC law 218 of 1989, SSM was illegal but with the passing of the law to regularize their operations, some of them are registered and are operating legally while others operate illegally. Due to the illegal nature of some of the SSM activities in Ghana coupled with the dangerous nature of their operations, there are wide spread believe of drug use amongst people involved in that business. Small Scale Mining in Ghana is

characterized by inadequate capital, inputs and low level and inappropriate technology (Appiah, 1998). Perceptions held by members of the community about wide spread drug use amongst small scale miners raises unanswered questions as to the reasons why some of the small scale miners resort to the use of drugs and what percentage of them use drugs, what knowledge do they have about the drugs and its effects, do the drug provide the desired results when it is taken, where and when do they take the drugs.

Studies have shown that drug use and abuse pose serious threat to a country as the youth who are engage in the activity gradually get addicted to its use and later find themselves in criminal activities, terrorizing residents in communities as well as developing mental problems. Data to show the extent of drug use and the level of perceptions of the effects of use of drugs is currently unavailable, thus there is the need to conduct a research study to determine the frequencies, reasons and perceived effects of drug use among small scale mine labourers in a mininig community in Ghana

Purpose of the Study

The purpose of this research study was to describe the nature of drug use and the perceptions of the effects of drug use on small scale mine labourers of Asutifi North District in Brong Ahafo Region of Ghana.

Research Questions

The study sought to answer the following research questions:

1. What is the extent of drug usage among small scale mine labourers in Asutifi North District?
2. What are the sources of drugs used by small scale mine labourers in Asutifi North District?

3. What is the cost of drugs used by small scale mine labourers in Asutifi North District?
4. What reasons do small scale mine labourers in Asutifi North District give for using drugs?
5. What are the perceived effects of drug use by small scale mine labourers in Asutifi North District?
6. What is the association between frequency of drug use and socio-demographic characteristics of small scale mine labourers in Asutifi North District?

Significance of the Study

Researches have shown that drug use among the youth is on the rise and it is becoming a growing phenomenon in different populations of the country (Antwi et al., 2003; Acquaye, 2001; Hendrikz, 1986; Selby, 2012). Hence, there is the need to conduct a study to determine the frequency and the perceived effects of drug use on small scale miners. Issues of SSM often reported in the daily newspapers throughout the country include land disputes, environmental impact, economic impact, and quite recently foreigners engaging in SSM. Furthermore, researches conducted on SSM over the years have concentrated on trends, myths and superstition in SSM, mercury use in SSM, review and organization of SSM (Aryee et al., 2003; Addei & Amankwah, 2011; Appiah, 1998; Donkor et al., 2006; Hilson, 2001). However there is no study conducted on drug use among small scale miners in Ghana even though there are wide spread perceptions of drug use among these group of people. Drug use presents a great deal of impact to its users and the community at large in terms of health, social life, crime wave, community

development, education, work/employment and therefore any study conducted in these area would be of immense benefit to society. The outcome of this research study will make available information to policy makers and local government authorities such as the district assembly in Asutifi North District on the picture of drug use situation at the SSM sector in their communities. This will enable them to plan, formulate policies and collaborate with stakeholders to address the problem. The study will also provide first hand information to the ministry of health [MOH] about the impact of drug use in a typical mining area so that in planning of drug use campaign programmes for the mining districts, they will have some reference knowledge bases for planning. Furthermore it will serve as research knowledge base on SSM activities in Ghana. This can be used by other researchers working on drug use in other sectors of the country. Lastly the outcome of the research will provide information to health educators to help them estimate and design health education programme which will seek to address some of the health challenges in drug use among small scale miners in the mining communities.

Delimitation of the Study

The frequency and effects of drug use among small scale mine labourers in the country is a very broad area which requires quality human resources, time and more especially funding in order to conduct the study in all SSM sites in Ghana. In view of these constraints, the study was conducted in Kenyasi small scale mining sites of Asutifi North Distrct. The study also focussed on small scale mine labourers who are involved in the digging process of the mining operations. The study also focussed on drug usage (both

legal and illegal drugs) as well as the perceived effects of these drugs on the small scale mine labourers.

Limitations of the Study

In the conduct of the study the following limitations were encountered

1. The nature of SSM operations makes it difficult to sample using a probability sampling method. Due to this, a snowball sampling technique was employed in the selection of participants. Therefore the issue of bias cannot be ruled out completely which may affect the external validity of the outcome of the study.
2. Due to the sensitive nature of the area of study coupled with the low level of education of the small scale mine labourers, questionnaire was designed to cover broad aspects of drugs so that participants will be willing to offer responses freely.

Definition of Terms

Small Scale Mining (SSM): All formal and informal, manual and mechanized mining that uses crude methods to extract gold from primary and secondary ore bodies (Heemskerk, 2002).

Drug: Any natural or artificial substance other than food that by its chemical nature alters the structure or function of a living organism (Oakley & Ksir, 2002).

Drug Use: Using unprescribed drugs for curative purposes or using drugs excessively without prescription (drug abuse) or misuse of drugs (Oakley & Ksir, 2002).

Drug Abuse: Any illegal use of a drug or use of a legal drug in a manner that deviates from approved medical direction (American Psychiatric Association, 1994).

Psychoactive Substance: A substance which affects a person's perceptions, mood, way of thinking and behaviour (American Psychiatric Association, 1994).

Legal Drugs: Drugs which are not under international control and which may have licit medical purposes (UNODC, 2014).

Illegal Drugs: Drugs which are under international control (and which may not have licit medical purposes) but which are produced, trafficked and /or consumed illegally (UNODC, 2014).

Youth: Refers to individuals whose ages range between 15 -35years.

CHAPTER TWO

LITERATURE REVIEW

Drug use is a major problem all over the world. According to World Drug Report [WDR] (2010), drug use is shifting towards new drugs and new markets, drug cultivation is declining in Afghanistan (for opium) and the Andean countries (for coca) and drug use has been stabilized in the developed world. However there are signs of an increase in drug use in developing countries and growing abuse of Amphetamine-type stimulants [ATS] and prescription drugs all over the world. The world's largest illicit drug product in volume terms is cannabis herbs followed by cannabis resin and the second largest illicit drug production is cocaine followed by heroine and then ATS (WDR, 2011). Cannabis herbs production takes place all over the world. While there are stable or downward trends for heroine and cocaine in major regions of consumption, this is offset by increases in the use of synthetic and prescription drugs. Non medical use of prescription drugs is reportedly a growing health problem in a number of developed and developing countries (WDR, 2011).

According to the National Drug Threat Assessment [NDTA] (2010) of United States of America, in 2008, approximately 2.9 million individuals tried an illicit drug or used a prescription drug non-medically for the first time, representing nearly 8,000 initiates per day. More than half of these new users representing 56.6% report that marijuana was the first illicit substance that

they had tried. The assessment indicates that in the past year, illicit drug initiates report that their first drug was a psychotherapeutic drug used non-medically representing 29.6%; 9.7% for inhalant and 3.2% for hallucinogen. By drug category, marijuana and pain relievers used non-medically each had an estimated 2.2 million past year first-time users. Also identified frequently as the first drug used by initiates were tranquilizers (non-medical use) is 1.1 million, 0.9 million for ecstasy/MDMA, 0.7 million for inhalants, 0.7 million for cocaine, and 0.6 million for stimulants.

Substance Abuse and Mental Health Services Administration [SAMSHA] (2010) published results of National Survey on Drug Use and Health [NSDUH] (2008) data of the United States of America which shows that 14.2 % of individuals 12 years of age and older had used illicit drugs during the past year. Marijuana is the most commonly used illicit drug, with 25.8 million individuals 12 years of age and older representing 10.3% reporting past year use. The report indicates that the rate remains stable from the previous year which was 10.1%. In 2008, approximately 5.3 million individuals aged 12 and older reported past year cocaine use, 850,000 reported past year methamphetamine use, and 453,000 reported past year heroine use. The report further indicates that rates of drug use vary by age. Rates are highest for young adults aged 18 to 25, with 33.5 percent reporting illicit drug use in the past year. Nineteen percent of youth aged 12 to 17 report past year illicit drug use. Finally, 10.3 percent of adults aged 26 and older report past year illicit drug use (NSDUH, 2008). Drugs change the way the body and the brain function. Sometimes the result is pleasant as in the case of prescription medication that are used to treat various conditions and diseases. However,

sometimes the result can be monstrous and cause great harm to the body and well being. But one thing remains the same; any addictive substance has the potential of changing a person's life for good or bad. One thing that is often misunderstood about drugs use and its abuse is that people think that it only involves illegal substances, but this is not the case. The fact is that any drug can be abused, being it prescribed drugs or recreational drugs, and thus it is the intent of use that indicates whether a drug is being abused or it's in use for a particular purpose (Witters & Witters, 1983).

In Ghana, there is little information as to the current trends of drug use in the country. Notwithstanding, Acquaye (2001) suggest that marijuana (cannabis) is the major drug of abuse by the youth of Ghana and the age of incidence of abuse of marijuana is relatively low, that is, between 10-12 years. It further indicates that a major reason for the start of drug use by the youth is experimentation. Barry (1990) noted that in Ghana, marijuana is the most abused and cheapest illicit drug which is packaged at ₵500 and the use of heroine and cocaine is not very popular among substance users in Ghana due to their high cost. Antwi et al. (2003) found in their study that the average cost of drugs usually abused by the youth in Ghana include Heroine: ₵500000 per teaspoon, Marijuana: ₵100-500 per roll, Cocaine: ₵500000 per head of match stick, Valium: ₵100 per tablet, Alcohol (spirits): ₵200-500 per tot, Cigarettes: ₵300-800. Hendrikz (1986) indicates that the culprits of drug use are mostly youth who migrate from rural to urban areas in search of greener pastures. Selby (2012) in an article on marijuana usage in Ghana noted that, the use of heroine and cocaine is not very popular among substance abusers rather marijuana and alcohol are the commonly used drugs in Ghana. The article

further stated that according to WDR (2007) 21.5% of Ghanaians aged from 15-64 years smoked marijuana or used other cannabis products (resins) in 2006. The WDR report added that Ghanaians use marijuana more than 5 times the world average which as a result has made Ghana the leader of African countries and third in the world in cannabis or marijuana use but Affinnih (1999) was of the view that a shift is underway from traditional marijuana abuse to crack cocaine and heroin in the Greater Accra region, the capital city of Ghana.

In a study on the prevalence and social consequences of substance use among second cycle and out of school youth in Ghana, Antwi et al., (2003) found that common drugs used in Ghana include Alcohol, Cannabis, Tranquilizers, Cigarettes, Cocaine, and Heroin and the age range of users of drugs in the country is between 15-24 years who are mostly the youthful age groups. The study also shows that drugs used by the youth have their common names; these include

1. Alcohol: Akpet, Palmwine, Bonsamnsuo, Yebudidi, Kwaff, pito, Spirit.
2. Cigarette/Tobacco: Jot, Pipe, Taaba, Nwusie, Stick, Esiw'ano, Bonds, Kingsize, Embassy.
3. Cannabis/Marijuana: Wee, Taaba, Abele, India hemp, Obonsamtawa, Ntampi, Tampico, Stuff, and Rolls.
4. Cocaine/Crack: White powder, Maggie powder, Soroabofa, Snow, Coke.
5. Tranquilizer: Blue blue, Valium, Wobeda.
6. Heroin: Brown sugar, Vigo, Zimblim, Ape and figure.
7. Volatile inhalants: Gases, Condensed milk, Glue, Kerosene, Nyamensuo.

The report added that amphetamines, hallucinogens, and opiates were not mentioned as drugs commonly used by the youth of Ghana.

Theories of Drug Use

Many theories have been put forward by sociologist, psychologist and biologist on behavioural change that can be use to explain drug use behaviours. According to Goode (2008) there are three broad types of explanation for drug use. These are biological theories, psychological theories and sociological theories. Each focuses on different range of factors as crucial in determining why people use and abuse drugs. Most of the theories are interrelated. A broad understanding of the various theories will give a clear picture of the myriad of factors that are associated with drug use. Biological theories attempt to look at genetic factors and environmental factors that predispose an individual towards the use and abuse of drugs. Psychological theories look at the idea of personality differences between users and non users and emphasises the role of reinforcement. Sociological theories attempt to look at the individual situation, social relation or social structure in which he or she is located. Popular related theories of interest include social learning theory, problem behaviour theory, social development theory, self derogation theory, and theory of reasoned action.

Problem Behaviour Theory

Empirical support for problem behaviours tends to be overt for studies in drug use (Barrera et al., 2001; Newcomb, 1995). Prior studies have shown the positive associations between substance use and deviant behaviours among European American adolescents and young adults (Donovan et al., 1988). Positive relations between substance use and deviant behaviours have also

been shown in African American (Farrell, Danish, & Howard, 1992). Finally, negative relations between conventional behaviours (example: Academic achievement, church attendance) and substance use and other problem behaviours have been documented in the literature (Donovan & Jessor, 1985; Donovan et al., 1988). Studies also suggest that multiple factors may be needed to explain the interrelations among various problem behaviours among the youth (Gilmore et al., 1991; White & Labouvie, 1994). Investigations with diverse samples have challenged the notion of a general “syndrome” of problem behaviours. Drug Scenes (1987) indicated that there is no single cause or reason for a person to use drugs and therefore the causes of a person’s drug use or misuse are multiple, varied and interrelated. Plant and Plant (1992) further suggested that it is more correct to refer to influences or associated factors when assessing the reasons why people choose to use and abuse drugs. Similarly, multiple factor structures for problem behaviours have been replicated in research with American Indian (Mitchell, & Beals, 1997) and Latino adolescents (Ebin et al., 2001). Based on prior research studies conducted to assess whether single factor or multiple factors account for individuals drug use, it is quite clear that multiple factors models are more useful in explaining substance use behaviour.

Social Learning Theory

Social learning theory has a clear cut application to drug use: it proposes that the use and abuse of psychoactive drugs can be explained by differential exposure to groups in which use is rewarded. These groups provide the social environments in which exposure to definitions, imitations of models and social reinforcement for use of or abstinence from any particular

substance use to take place and the definitions are learnt through imitation and social reinforcement of these definitions by members of the group with whom one is associated (Akers et al., 1979). Drug use including abuse, is determined by the extent to which a given pattern of behaviour is sustained by the combination of the reinforcing effects of the substance with social reinforcement, exposure to models, definitions through associations 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). Social learning theory then proposes that the extent to which substances will be used or avoided depends on the “extent to which the behaviour has been differentially reinforced over alternative behaviour and is defined as more desirable” (Radosevich et al., 1980, p. 145). In short, we tend to repeat what we like doing. Notwithstanding, the theory does not explain why a given activity such as drug use, is liked by an individual and not another.

Types of Drugs

There are many different types of drugs, some are prescribed, others are known as club drugs, illicit or illegal drugs and some are called designer drugs (Witters & Witters, 1983). The following are classifications of the types of drugs adopted from Oakley and Ksir (2002), Hardcore (2004), International Drug Evaluation and Classification Program (2002-2012) and Sussman and Ames Scheme of Drug Classification (2001). These are Narcotics (steroids and opiates), Stimulants (tobacco and amphetamines), Depressants (barbiturates), Hallucinogens, Cannabis (marijuana), Volatile solvents (inhalants) and other drugs of abuse (antidepressants).

Narcotics: refers to substances derived from opium (opiates) or its synthetic replacements. They are drugs that are used for pain relieving and produce opium-like effects. Examples include Opium, Buprenorphine, Cocaine, Morphine, Codeine and Heroin. All of which are highly addictive. Narcotic Analgesics (steroids) are not anabolic steroids which are used to treat inflammations, but rather they are abused in its use to build muscle mass and strength. They generally consist of male sex hormones and can be very damaging when used without prescription Example Pethidine.

Short term effects: Euphoria, thought process impairment, drowsiness, apathy, not feeling hunger and pain, Overdose of heroin can cause convulsion, coma and death.

Long term effects: Mood instability, reduced libido, constipation, respiratory impairment, physical deterioration.

Withdrawal symptoms: Feeling of unpleasantness, aches and pains all over the body, diarrhea, dilation of pupils and insomnia

Stimulants: these are class of drugs that boost alertness and increase the activity of the central nervous system. Examples include Amphetamines, Methamphetamines, Cocaine, Nicotine, Caffeine, Tobacco etc. Tobacco is often smoked in the form of cigarettes or cigars or chewed and contains nicotine which is a stimulant. It is a highly addictive substance. Methamphetamines is currently one of the most commonly abused drugs and also one of the most addictive and damaging drugs that affects one's health. Its use has spread rapidly because it can be made in home laboratories. The essential chemicals are ephedrine and pseudoephedrine which are common ingredients in many nasal drop medicines.

Short term effects: Euphoria, sense of super abundant energy, increased motor and speech activity, suppression of appetite, increased wakefulness.

Long term effects: Chronic sleep problems, poor appetite, rapid and irregular heart beat, mood swings, amphetamine psychosis may occur.

Withdrawal symptoms: No major physiological disruptions, extreme fatigue, disturbed sleep, voracious appetite, moderate to severe depression.

Depressants: is a type of drug that work by reducing the function of the central nervous system. They are also known as sedatives hypnotics. Drugs often include Benzodiazepines, Alcohol and Barbiturates. Barbiturates are of different types, many of which are prescription drugs and work by depressing the central nervous system. They can cause anesthesia and sedation and can be used to treat seizures disorders, insomnia and other problems. Barbiturates can be abused and users build tolerance to the drug such that they require larger doses to achieve some effects. Examples include Allobarbitol, Phenobarbital, Alphenal, Pentobarbital, Quaaludes, and Tranquilizers etc.

Short term effects: Relief from anxiety and tension, euphoria, lowering of inhibitions, poor motor coordination, impaired concentration and judgments, slurred speech and blurred vision, sedation.

Long term effects: Depression, chronic fatigue, respiratory impairment, impaired sexual functions, decreased attention span, poor memory and judgments, chronic sleep problems.

Withdrawal symptoms: Tremors, insomnia, irritability and restlessness, hallucinations, convulsions and delirium.

Hallucinogens: is a type of drug that works by producing sensory hallucinations in users involving any of the five senses. Hallucinogens can be

found naturally in mushrooms or made synthetically. Common substances that fall within this category include Lysergic acid diethylamide (LSD), Peyote, Psilocybin, Phencyclidine (PCP), Ketamine, Mescaline etc. Phencyclidine was originally developed as an animal anaesthetic and tranquillizer, but is no longer used as such. Phencyclidine can be smoked or taken orally. Lysergic acid diethylamide is not physically addictive but very dangerous drug due to its health consequences. Lysergic acid diethylamide and other hallucinogens may produce flashbacks a couple of years after the last use.

Short term effects: Alteration of mood, distortion of the sense of direction, distance and time, “pseudo”hallucinations, synesthesia (melding of two sensory modalities, feelings of depersonalization.

Long term effects: Flashbacks and spontaneous recurrence of LSD experience can occur, Amotivational syndrome, LSD precipitated psychosis.

Withdrawal symptoms: No withdrawal symptom reported.

Cannabis: This includes marijuana, Hashish, Hashish oil, Bhang. These drugs have psychoactive effects. It is taken into the body in the form of smoke, vapour and can even be consumed or mixed with food. It is often believed to be the gateway to other serious substances of abuse.

Short term effects: Mild euphoria, lowering of inhibitions, Reddening of the eyes, sense of smell, touch and taste are often enhanced, altered sense of time perception, impaired short term memory, impaired ability to perform complex motor task.

Long term effects: Decreased cognitive ability, Amotivational syndrome, Psychosis, respiratory problems, sterility/impotence, in women abusers, foetal damage can occur.

Withdrawal symptoms: Sleep disturbances, loss of appetite, tremors, depression and irritability.

Volatile solvents (inhalants): refer to a group of drugs that are inhaled in the form of a gas or solvent. Potential inhalants can be found anywhere. They are depressants and affect the nervous system by slowing down messages to and from the brain. Inhalants can be grouped into four (4) main categories; these include Volatile solvents examples glue, nail polish remover, gasoline; Aerosols examples hair sprays, air freshener; Anesthetic example nitrous oxide gas; Volatile nitrates examples amyl nitrates and butyl nitrates.

Short term effects: Euphoria, clouded thinking, slurred speech, staggering gait, hallucinations, sudden death.

Long term effects: Psychosis, permanent brain damage, liver and heart damage.

Other drugs of abuse: These include Muscle relaxants, Antihistamines, Painkillers, Antidepressant or Antipsychotics.

Antidepressants: are prescription medication used to treat depression and mood disorders like obsessive compulsive disorders, eating disorders and other anxiety problems. Antidepressants drugs used with alcohol can cause serious side effects. Continuous use can also cause mild withdrawal symptoms. Examples of antidepressants include Anafranil, Norpramin, Prozac, Luvox, Lexapro,

Ecstasy/MDMA (3, 4-methylenedioxy-N-methylamphetamine)

General effects: The effects and subsequent dependence vary from one individual to another.

Sources of Drugs

Globally, available information about people caught in drug trafficking and drug use has led to a general consensus that the main sources of drugs globally are: The Middle East, Central, South-East and South-West Asia, and Latin America. In the Middle East region, countries like Turkey and Afghanistan are famous for producing hashish, a resinous material used as a hallucinogen. In Lebanon, illicit opium poppy cultivation and heroine production continues (Mbatia, 1994). Opium grows in temperate subtropical climate like that of South-East Asia. Mbatia points out that opium, which can be converted into morphine, codeine, and heroine, is mainly grown in South-East and South-West Asia (Golden Triangle and Golden Crescent). The triangle, located at the junction of the borders of Myanmar, Thailand and Lao People's Democratic Republic, is the world's foremost sources of opium and heroine. These countries appear to be popular and 'resourceful' in drug trafficking. Countries like Burma and Thailand are also producing raw opium and marijuana (Mbatia, 1994). Central Asia produces marijuana which is currently grown in most parts of the world. In the Latin American region, natives in Colombia, Bolivia, and Peru are known to grow 'coca' (cocaine comes from coca), and use its leaves the same way other people use tea leaves. The natives of these countries believe that coca leaves are energy-giving (Msambichaka, Mjema, & Ndanshau, 1994). The literature has also shown that, in general, Peruvians and Bolivians chew the plants to increase their stamina.

Apart from drugs that are trafficked from other countries into Ghana, locally there are many sources through which drugs can be obtained. Senah

(1995) in a drug education and preventive manual indicated that although most of the drugs are legally produced in the factories, it is known that some of them are produced in our communities. Example marijuana is grown by a number of farmers in the country and local alcohol (Akpateshi) is also produced and consumed in a number of our villages in Ghana. Senah also indicated that all these activities promote the drug use problem in the country. The manual further states that drugs and other substances may be obtained from a number of sources, these include; Hospitals and clinics/ health post (legal drugs), quack doctors (legal/illegal drugs), drug stores (legal/illegal drugs), drug peddlers and traffickers (illegal drugs), drug pushers (illegal drugs), traditional healers (legal/illegal drugs), the natural environment (legal/illegal drugs) (Senah, 1995). In a study of drug use, they found that drug use substances are certainly accessed from certain places for free or in exchange for money. Most drug users get the drugs from licensed dealers, multipurpose shops or drinking bars or restaurants (30% each). Some get these drugs equally from hospitals and friends (20% each), 12% held that drug users access these drugs from home, while 10% respondents also were of the opinion that drug users steal these drugs and yet others get them from illegal hideout (10%). The study also indicated that a lot of youth use drugs illicitly and they get them from various right or wrong sources (Omage & Omage, 2012).

Frequency of Drug Use

Frequency of drug use is significant because it relates to the likelihood of psychological or physical dependency. Drugs administered frequently may need a smaller dose than if administered at longer intervals. Injections may

require smaller doses than oral medications. According to Office of National Drug Control Policy [ONDCP] (2004) increasing the frequency or dosage over time may lead to tolerance and physiological dependence. Regular or habitual use is predictive of continued future use. Odgers et al. (1997) in a study of the prevalence and frequency of drug use among Western Australian students indicated that alcohol, marijuana, tobacco, hallucinogens and amphetamines were reported as the most prevalent substance with over 50% of current drug users using alcohol and marijuana on a frequent basis that is weekly to more than once per a day. It also indicated that approximately 40% of substance using participants use single substance drug, 40% used two to three drug and 20% used four or more substances. According to the annual report questionnaire of UNODC (2003) under the global assessment programme on drug abuse, questions on frequency of drug use centred on whether it was ever used (life time use), usage in the past 12 months, usage in the past month (current use), daily use in the past month with daily use in the past month reporting highest of 52% for substance users.

Substance Abuse and Mental Health Services Administration [SAMHSA] (2004) indicates that there is no agreed terminology for describing the frequency of drug use. Investigators and adjudicators advice that terms such as experimental, occasional, frequent and regular drug use should be avoided but rather prescribe that specific questions are to be asked for the frequency of drug use which includes which drug or drugs; how often; for how long; and how much is the drug taken. Habitual, compulsive use of a substance over a prolonged period of time may lead to dependency on a

particular drug of use. They also advice that for general descriptive purposes of frequency of drug use, the following set of terms could be used:

1. Experimental use: initial use for a maximum of six times or more intensive use for a maximum of one month.
2. Occasional use: once a month use or less.
3. Frequent use: once a week or less use but more than once a month.
4. Regular/habitual use: more than once a week use.

According to SAMHSA (2010) illicit drug use generally declines as individuals move through the young into middle adulthood through to maturity. Wright and Davis (2001) indicate that Heavy marijuana use is defined as using marijuana on at least 300 days in the past year. Heavy illicit drug use other than marijuana was defined as using at least one of the following: cocaine (including crack), heroine, hallucinogens (including LSD and PCP), inhalants, or any prescription-type psychotherapeutic used non-medically on at least 50 days in the past year, regardless of marijuana/hashish use. Marijuana/hashish users who also had used any of the other listed drugs on at least 50 days in the past year were counted as heavy users of illicit drugs other than marijuana.

For medication purposes, Hauswirth (2002) indicates that the frequency of administration of medication drugs is most often ordered on repeated schedule. For non-medication purposes, where the drug is abused, the frequency of intake will depend on the purpose for which the drug is taken and for how long does it take for the desired drug effect to be felt. Research in the area of association between married individuals and health behaviours such as drug use is less extensive in the literature; however marriage may influence

health through its effects on behaviours such as alcohol consumptions and other drug use behaviours. Recent research suggests that marriage has significant effects on the health behaviours of both men and women, but the pattern is mixed that is marriage is associated with healthier behaviours in some cases and less healthy behaviours in others. Studies consistently indicate that marriage reduces heavy drinking and overall alcohol consumption, and that effects are similar for young men and young women, and for both African Americans and whites (Bachman et al., 1997; Curran et al., 1998; Duncan et al., 2006; Miller-Tutzauer et al., 1991). Marriage and smoking reveal no consistent pattern of results, suggesting that marriage may have little or no influence on this behaviour (Bachman et al., 1997; Duncan et al., 2006; Mwenifumbo et al., 2010; Lee et al., 2005;). They also indicated that household income and employment status are not associated with smoking status.

In a study of the prevalence and distribution of illicit drug use in the workforce and in the work place, Frone (2006) noted that Overall prevalence rates show that marijuana is the illicit drug most commonly used by the workforce and among those workers who use illicit drugs, drug use and impairment occurs infrequently. In addition, 86 % of workers reported not using any illicit drugs and 89 % reported not being impaired from illicit drug use during the previous 12 months. At least one illicit drug was used during the previous 12 months by 14 % of employed adults (17.7 million workers). Eleven percent of workers (14.1 million workers) reported being impaired by at least one illicit drug. Marijuana was the illicit drug most commonly used and the drug most often associated with impairment. Men reported both illicit

drug use and impairment more often than women. Race was unrelated to either illicit drug use or impairment. Occupation was the strongest and most consistent predictor of overall illicit drug use and impairment. High-risk occupations for illicit drug use and impairment among employed individuals included: arts, entertainment, sports, and media occupations; and the food preparation and serving occupations.

For workplace use Frone indicated that use of marijuana and psychotherapeutic drugs were equally common in the workplace. Cocaine use was much less common. Among those workers who use illicit drugs at work, 56 % did so at least once per week. Nonetheless, this group represents only 1.8 % of the total U.S. workforce. Illicit drug use in the workplace was reported by 3.1% of workers (3.9 million workers). Impairment was reported by 2.8 % of workers (3.6 million workers). Men reported illicit drug use and impairment in the workplace more often than women. Rates of workplace drug use and impairment were equivalent across ethnic and racial subgroups. High-risk occupations for illicit drug use and impairment at work included legal, food preparation and service, and building and grounds maintenance occupations. Also, the majority of workers did not use drugs in the workplace. The most prevalent occasion in which workplace drug use did occur was within two hours of coming to work (2.7 % of the workforce or 3.4 million workers). The remainder of the workplace drug use occurred during lunch breaks (1.8 % or 2.3 million workers), while the employee was performing their job (1.7 % or 2.2 million workers), and during breaks other than the lunch break (1.2 % or 1.5 million workers).

Reasons for Use of Drugs

Goode (2008) proposes that there are dozens of explanations given by researchers for drug use and abuse. It further indicates that there are two absolutely necessary preconditions for drug use, the predisposition or motive and susceptibility to do so, and the availability of one or more psychoactive substances. Each of these preconditions is necessary but not sufficient to explain drug use. If a drug is not available in a particular locality, drug use is not possible whether or not a predisposition to use is present. Likewise without the predisposition to use drugs, the use of drugs cannot take place by itself. Availability does not explain use. Each is an essential or necessary condition for use; but neither is sufficient for it to take place. The following is a summary of factors that may influence drug use.

Personal Factors

According to Goode (2008) a number of personal factors can help to determine the reasons why a young person will engage in drug use or other problematic behaviours. These include predisposition (genetics and biology), personality factors, reinforcement factors, hedonism etc.

Predisposition: This theory suggests that there is a genetic factor within an individual which may predispose that individual to use or misuse drugs. This can also be referred to as a person having particular biological or psychological traits. It is generally felt that such theories need to be considered in relation to other associated factors, both individual and social (Plant & Plant, 1992). Genetic make-up may lead to vulnerability to drug use problems that may or may not be expressed depending on the person's environment, example parents and communities attitudes towards drugs and specific

individual experiences. Exposure to substances such as alcohol and tobacco during pregnancy can either subtly or dramatically affect a child's future development and vulnerability depending on the substance, timing and extent of exposure (INCB, 2009).

Personality/Psychological Factors: This is concerned with what is referred to as the addictive personality. Research has often involved looking at institutionalised drug users, that is in hospitals or rehabilitation unit, many of whom appear to have personality problems. Examples of these personality characteristics include neuroticism, hostility or extroversion. The results of research into this issue are contradictory and inconsistent (Plant & Plant, 1992). It has been argued that those aspects of personality interpreted as the cause of drug use may perhaps be, on occasion, a consequence of it (Foley & Todhunter, 1992). However, this is not to deny the importance of personality as a factor when viewed in combination with environmental factors. Almost any aspect of personality which makes it less easy for an individual to find ordinary rewards in life and ordinary happiness, or to fit in with his/her peer group, thus provoking anxiety and tension, may predispose a person to drug-taking as a short-term answer to such problems (Drug scenes, 1987). Personal factors like low success at school and poor interpersonal relationship between individuals may be the cause in some cases for drug use.

Reinforcement factors: There are two distinctly different types of reinforcement that is positive and negative reinforcement and therefore two different theories that cite reinforcement as a mechanism in continued drug use.

Positive Reinforcement: Occurs when the individual receives a pleasurable

sensation and, because of this, is motivated to repeat what caused it. In brief, “The pleasure mechanism may give rise to a strong fixation on repetitive behaviour” (Bejerot, 1972, p. 137). With respect to drug use, this means that getting high is pleasurable, and what is pleasurable tends to be repeated. McAuliffe and Gordon (1979) added that the continued use of all drugs that stimulate euphoria is caused by their extremely potent reinforcing effects. This also means that ongoing, even compulsive, use and abuse do not require the mechanism of a literal physical addiction to continue taking place. Many users are reinforced that is, they experience euphoria from their very first drug experience onward, and the more they use, the more intense the sensation and the greater the motivation to continue use. Positive reinforcement can occur with any euphoric drug indeed, with any pleasurable sensation (Bejerot, 1972).

Negative Reinforcement: Occurs when an individual does something to seek relief or to avoid pain, thereby being rewarded and hence motivated to do whatever it was that achieved relief or alleviated the pain. In the world of drug use and addiction, when someone who is physically dependent on a particular drug undergoes painful withdrawal symptoms upon discontinuing the use of that drug, and takes a dose to alleviate withdrawal distress, he or she will experience relief with the termination of the pain. Such an experience will motivate the addict to do what has to be done to obliterate the painful sensations associated with withdrawal (Bejerot, 1972).

Hedonism (Enjoyment)

A powerful stimulus for many recreational drug users is that they derive enjoyment from the effects of the drug of their choice. It is important to

recognise this factor, as most recreational drug users will put forward positive reasons for their deciding to take drugs, example it makes them feel good (Foley, & Todhunter, 1992; Sokro et al., 2010). Jaffe (1985) noted that one reason why most young people use cannabis is to experience a 'high' that is mild euphoria, relaxation and perceptual alterations, including time distortion, and the intensification of ordinary experiences, such as eating, watching films, listening to music, and engaging in sex.

Gender Factor

Early experimentation appears to be more common in males than in females. However, these differences tend to disappear as young people get older, (Gossop & Grant, 1992). Research studies have highlighted a host of social factors (including socialization, gender roles, and prescriptive norms) that may contribute to gender disparities in substance use and deviant behaviours (Gilbert, & Collins, 1997; Lex, 1991). Consistent with these suggestions, gender differences in substance use and problem behaviours have been documented in prior research (Barnes, Farrell, & Dintcheff, 1997). Findings from the 1995 National College Health Risk Behaviour Survey (as cited in CDC, 1997) revealed that men were more likely to be involved in problem behaviours than women. For example, more men than women reported heavy drinking (44% vs. 27%) and marijuana use (17% vs. 12%) during the last 30 days. Twice as many men (14%) as women (7%) were in a physical fight in the last 12 months. Finally, more men (13%) than women (7%) reported combined illicit drug and alcohol use in the last 30 days.

Curiosity / Risk Taking

This is important in experimental drug use. Some individuals, however, may be more curious or inquisitive than others. Such curiosity may be strongly influenced by other factors such as peer pressure, mass media coverage of drug issues and the availability of drugs (Plant & Plant, 1992). A review of research with regard to risk-taking has indicated that risk-taking is normal among young people and it would appear that some individuals take more risks than others. The review also stressed that risky behaviours are fostered by a variety of powerful factors, most of which are difficult to counter (Plant & Plant, 1992). One particular point made was that people are influenced more by their perception of risk rather than the reality of the risk. With regard to young people and their apparent higher predisposition to take risks, that is the way teenagers can often perceive themselves to be invulnerable, many young people feel they have a personal immunity from adverse consequences (Drug scenes, 1987). Research by Plant and Plant also cite the work of Jessor and Jessor, who argued that some behaviours including risk-taking, were influenced by certain variables (Plant & Plant, 1992).

These included personality, beliefs and behaviours which are approved by significant others. However, Plant and Plant did not come to any firm conclusions as to what motivates people to take risks, other than deducing that risk-taking results from strong psychological drives (Plant & Plant, 1992). United Nation Drug Control Programme [UNDCP] (2004) indicates that prevalence of drug use among young school learners in many countries is higher than the general population. The main reason remains that adolescence is a period of experimentation and search for identity, and that young people

are more likely than adults to experiment with various things, including drugs. Thus, prevalence rates among young people can be three or four times higher than those found among the general population. Omega (2005) noted that experimenting on the use of drugs appear in various stages among young adults and teens. Common among these stages are

Experimental/recreational stage: A stage commonly found with youths and teenage students of age 12-18years who experiment and use drugs due to peer influence and environmental factors. These drugs give them a euphoric experience. **Habitual stage:** At this stage, people use drugs to maintain the state of euphoria got from the experimental stage. They continue the use of drugs because they have come to like and accept the state of euphoria they experienced. **Dependent Stage:** This arises out of a habitual use of drugs. Abusers at this stage feel they cannot do anything without drugs so they do anything terrible just to get these drugs. Dependence makes abusers of drugs loose control over themselves and situations.

Peer Pressure / Peer Preference

Consistent with social learning theory, numerous researches have documented the powerful influence of peers on adolescent drug use (Brook, Brook, & Richter, 2001; Hawkins, Catalano, & Miller, 1992; Reed, & Rountree, 1997). When adolescents associate with peers who use drugs, they are much more likely to initiate drug use (Huizinga, Loeber, & Thornberry, 1995). Peers usually introduce one to a drug and encourage its use and adolescents rarely use drugs if none of their friends use drugs (Khavari, 1993; Moon et al., 1999; Sokro et al., 2010).

Peer pressure is a complex concept. It has been identified as a cause of initial drug use. The argument suggests that those young people with low self-esteem and a need to secure the acknowledgement of their peers are particularly likely to be influenced or pressured by the encouragement of their friends and peers to engage in drug use. It is also argued that such encouragement often appears to be an important factor in relation to initial or experimental use because people need to be convinced that such use is attractive, safe, beneficial and prestigious before they are likely to engage in it (Gossop & Grant, 1992). However, this view of peer pressure as a major causal factor in the onset of illicit drug use has been challenged in recent years (May, 1993). A more accurate analysis may be to talk of peer 'preference', that is individuals may make a conscious choice to seek the company of others who share the same norms and values as themselves without the element of compulsion or social inadequacy implicit in the notion of people unable to resist peer pressure as described above (Coggans & Mckellar, 1994).

Availability

The availability of drugs is an important factor as to whether drugs are used or misused. In addition, availability may also influence or dictate patterns of drug use in a given area or sub-culture at a given time. However, the fact that drugs are available does not explain why only some people actually use the drugs or go on to become dependent upon them (Jessor & Jessor, 1977).

Social, Economic and Cultural (Environmental) Factors

The Anomie theory suggests that illicit drug use is partly a response to alienation or anomie (lack of social/moral standards). The argument is presented that people who are not well rewarded in the mainstream of society

opt out and seek alternative pleasures such as drugs. It puts forward reasons such as educational failure and economic and social deprivation, including lack of employment, poor job prospects, poor housing and environmental conditions, (Drug scenes, 1987) However, that is not to deny that those who live in areas where there is poor housing, lack of education, uncertain job prospects and lack of employment are vulnerable to drug misuse. Jessor and Jessor (1977) noted that those whose drug use is heavy or problematic frequently have educational problems which include truancy and leaving full-time education early. However, this is not to suggest any causal significance, but to point out associated factors or correlates.

Family Disruption Factors

Illicit drug use has been attributed to family problems, including early separation from one or both parents, broken homes and parental problem drug use. However, such evidence often comes from drug-dependent individuals in clinical settings, example psychiatric wards. It should be emphasised that young people from broken homes do not necessarily turn to illicit drug use, while those from seemingly stable homes may become involved in drug taking. (Gossop & Grant, 1992; De-wit et al., 1997) in their study pointed out that salience of family background in affecting early onset drinking and drug use behaviours are well recognized to have potentially adverse mental and physical health consequences as well as negative social outcomes. According to INCB (2009) report on the extent and nature of drug use, early deprivation example lack of affection from caregivers, neglect or abuse often has a profound effect on a child's pathway through life. Children of drug or alcohol dependent parent are at a particular risk for later drug use. In adolescence,

discipline and family rules are risk factors as well as extreme approaches such as either being too permissive or too punitive. It further noted that transitions or significant changes in the family life such as parental separation, loss of a close family member or moving to a new neighbourhood or school can place a young person at risk.

Instability of the family can lead to adolescent street life for survival and these can lead them to substance use. In Mexico, one study (Tullis, 1993) found that 22% of the street children under 18 in a southern section of Mexico City acknowledged daily use of solvents. Another 1.5% had daily use of marijuana, and the same survey showed that 36% of homeless children used solvents. Trouble with the police, substance abuse, and sexual activity are additional risk factors and all of them are much more common among abandoned street children. More than half sniff glue; 4 in 10 also drink alcohol at least occasionally; 6 in 10 smoke cigarettes; 1 in 5 smokes marijuana. Thus, inhalants are the most commonly abused substances among abandoned street children in Honduras, as opposed to alcohol and crack among homeless teens in the United States, but the overall rate of substance abuse turns out to be about the same in both contexts.

Self-Medication / Functional Use

Some people will use drugs because they meet a specific need for them. Drugs may, in fact, alleviate unpleasant feelings and experiences. In these circumstances, such use is sometimes referred to as self-medication. Certain drugs have perceived functional uses example amphetamines have been used by people who wish to stay awake for long periods of time and by people who wish to lose weight (Gossop & Grant, 1992).

Effects of Drug Use on Health

Drug use and its abuse can have serious consequences on an individual's health. People who use drugs experience a wide array of physical effects other than those expected. The excitement of cocaine use for instance is followed by a "crash" that is a period of anxiety, fatigue, depression and strong desire to use the substance to alleviate the feeling of crash (Oakley & Ksir, 2002). Marijuana and alcohol interfere with the motor control and are factors in many automobile accidents. Users of marijuana and hallucinogenic drugs may experience flashbacks, which are unwanted recurrences of the drug effects which occur after a week or months of the drug use. Abrupt abstinence from certain drugs results in withdrawal symptoms example heroine withdrawal symptoms causes vomiting, muscle cramps, convulsion and delirium. With the continued use of physically addictive drugs, tolerance develops that is constantly increasing the amounts of the drugs intake to duplicate the initial effects. Drug use can increase person's violent behaviour as well as sexual activity (Sussman & Ames, 2001).

Health problems impair family life and productive employment, diminish the quality of life and may threaten survival. A comprehensive picture of world wide health implications of drug abuse is not available. Significant country and international data, however, are available and the impact of addictive substances on health in both developed and developing countries are discussed below. The broader context of widely used substances includes tobacco, alcohol and inhalants (including glues, thinners and gasoline). All of these substances have several important characteristics in common. They alter the function of the human brain and have an impact on

behaviour; they are widely used throughout the world; and they burden society by increasing social and economic costs for productive enterprises and thereby drawing upon limited government services. The most widely used addictive substances, alcohol and tobacco, are harmful with extensive damage to the individual, family and the community (Frischer et al., 1994). Frischer et al. (1994) added that recent informal estimates indicates that perhaps 200,000 drug-injecting-related deaths may occur per annum based on the estimated size of the current world population of injecting drug abusers of approximately 5.3 million. World Bank (1993) comments on major health report indicates that Decisions about the control of tobacco and other addictive substances are among the most important health-related choices that societies can make collectively. In many populations, prolonged cigarette smoking is already the greatest single cause of premature death. Alcohol and other drugs also contribute to disease and disability. The damage from substance abuse is not limited to the individuals involved; others also suffer indirectly because of drunken driving, fires, passive smoking, and drug related crime and violence (World Bank, 1993).

World health organization [WHO] (1993, p. 22) report “existing data indicates a several-fold increase in drug-related deaths over the past decade”. Substances commonly associated with drug use and abuse-related deaths are cocaine, heroine (and other opiates), barbiturates and amphetamines (amphetamine derivatives). Benzodiazepines, hallucinogens, cannabis and other substances are less frequently implicated. WHO also noted that combinations of drugs and alcohol were frequently used? The most widely used controlled drug, cannabis, could be associated with some fatal accidents

despite its slow acute toxicity. Concerning chronic use, there may be greater risks of damaging the lungs by smoking cannabis than tobacco (New Scientist, 1987). Cercone commenting on the public implications of the use of addictive substances, tobacco and alcohol consumption account for nearly 5 million deaths annually worldwide. As levels of GNP per capita rise, third world population's age, and noxious substances are more widely marketed and distributed in developing countries, the number of deaths can only be expected to increase (Cercone, 1994).

The proportion of all drug users and abusers who end up with serious health and social problems is not known. Whatever that proportion, illicit drug use more frequently results in problems or disease rather than death. For instance one of the most immediate effects of smoking cannabis is to increase the heart rate by 20% to 50% within a few minutes to a quarter of an hour of smoking cannabis (Chesher & Hall, 1999; Huber et al., 1988; Jones, 1984). Changes in blood pressure also occur. These depend upon posture: blood pressure is increased while the person is sitting, and decreases while they are standing. A sudden change from lying down to standing up may produce postural hypotension and a feeling of 'light headedness' and faintness that is often the earliest indication of intoxication in naïve users (Maykut, 1984). Chesher and Hall (1999) noted that in healthy young users these cardiovascular effects are unlikely to be of any clinical significance. When cannabis is used in a social setting, the 'high' may be accompanied by infectious laughter, talkativeness, and increased sociability. Cognitive changes include impaired short-term memory and attention. These make it easy for the user to become lost in pleasant reverie and difficult to sustain goal-directed

mental activity (Beardsley & Kelly, 1999; Solowij, 1998). Motor skills, reaction time, motor coordination and many forms of skilled psychomotor activity are impaired while the user is intoxicated (Beardsley & Kelly, 1999; Jaffe, 1985). Some users report unpleasant experiences after using cannabis. These include anxiety, panic, a fear of going mad, and depression (Thomas, 1993; Weil, 1970). Psychotic symptoms, such as delusions and hallucinations, are very rare experiences that may occur at very high doses of cannabis use, and perhaps in susceptible individuals at lower doses (Thomas, 1993).

Studies have shown that drug use has an impact on the cognitive impairment of an individual (Mendelson & Mello, 1991; Miller, 1990). In general these studies collectively show marked decrease in cognitive skills from acute alcohol or drug intoxication. Among the many potential harmful substances, alcohol in particular has received a large share of the research attention on cognitive deficit (Miller, 1990). Extensive laboratory trials with adult alcoholics and non-alcoholics controls indicates that alcoholics are generally slower, less accurate and perform more poorly in solving a variety of neurological and sensory motor task (Glenn & Parsons, 1991; Nixon & Parsons, 1991). Possi (1996) also noted some effects of children born from crack cocaine users as deformed hearts, lungs, digestive systems and limbs. He noted that most of the children are underweight, tremulous with neurological damage and problems in coping with normal life. The children have extremely dislike behaviours such as scattering things, hyperactivity, hypersensitivity, withdrawal, unable to engage in free play, lack of self organization, lack of initiative, low tolerance of frustrations and difficulty in structuring information.

A variety of cognitive deficits may contribute to lowered academic goals in these substance using youth. Newcomb and Bentler (1988) noted that early drug use decreased deliberateness (ie. Planning) in a sample of adolescents followed into young adulthood. More recently, in an extended set of analyses, Newcomb, Scheier, and Bentler (1993) reported that in addition to decreasing deliberateness, exacerbated (increased) drug use increased disorganized and disruptive thinking. Several other studies also have documented decreased educational attainment and lowered academic potential from early drug use (Johnson, O' Malley, & Bachman, 1992). In fact these studies have provided a more detailed understanding of how alcohol and drug use adversely influence learning opportunities (ie. reduced cognitive skills) which present lowered academic competencies' and educational pursuits. The review indicates that substance abuse related health costs may be a serious but unrecognized drain on national income; it is often unrecognized because drugs or alcohol may not appear directly in diagnoses and classifications but may be major risk factors contributing to other diseases and costly social disorders.

Effects of Drugs Use on Work and Employment

Work status includes more than being either employed or unemployed. According to International labour organization (ILO) "an estimated 30 per cent of the world's labour forces are not productively employed. More than 120 million people are registered as unemployed; some 700 million are underemployed" (ILO, 1994, p. 114). The document further indicated that more than 60 percent of adults know someone who has reported for work under the influence of alcohol or other drugs. Drug abuse in the workplace costs American Businesses nearly \$100 billion a year in lost productivity, high

absenteeism and turnover rates, on and off-the-job accidents, excessive use of medical benefits, theft and property damage. They also lose 37 billion due to premature death and \$44 billion due to illness. Alcoholism is estimated to cause 500 million lost workdays annually.

Frone (2003) noted that experts say that 10% to 15% of all employees are dependent on drugs and or alcohol. Drug use and abuse occurs more frequently in young people than in other age groups. The risk factors for drug use often occur before entry into the workforce. The drug abuse problems of the community are therefore, brought into the workplace. The age group with the highest frequency of drug use is often 18-35 years, although wide variation exists between countries. A recent study in Portugal found that there are still some workers who believe they can work with more precision if they drink a certain amount of wine and there are some employers, both in the building and agricultural sector, who offer free wine to get somework done (Pereira, 1993). While the consequences of unemployment vary, it usually reduces the ability of the person to participate in the social, economic and political life of the community (Khoi, 1991). To assess the scope of drug and alcohol problems, a Canadian study (Alberta Alcohol and Drug Abuse Commission, 1992) carried out three surveys of more than 2,000 people in the Alberta workforce, including both the current workforce and those actively seeking work. Less than 1 in 16 persons reported using illicit drugs, mainly marijuana, in the past 12 months. Among current drug users, 18 per cent reported at least two personal problems associated with their drug use. Alcohol was the most frequently used substance. In a research carried out by Newcomb and Bentler (1988) disruptive drug use was examined in an extensive study of 468 young

adults in Los Angeles, one-third of who were minorities (black, Hispanic or Asian). 31% admitted to being drunk, stoned or high on at least one psychoactive substance while at work or school during the past six months. Less than 13% of these young adults had sold an illicit drug during the past six months. Disruptive drug use was not limited to a single substance and characteristically involved multiple substances. Alcohol was the most prevalent class of substance used, and marijuana was the most prevalent individual substance used at work. The magnitude of the relationship of disruptive drug use and work-related variables was small to moderate. However, disruptive use of all drugs was significantly correlated with the more times that one lost a job during the past four years, losing a job in the past six months, increased trouble with job, increased vandalism at work, and increased seeking of support and advice from family and friends for a work problem.

A recent study carried out by ILO and the Commission of the European Communities examined drugs and alcohol in the European workplace (as cited in Smith, 1993) a total of 237 respondents from employers, enterprises and workers organizations provided information on drug and alcohol uses of nearly 1.5 million workers in Europe. The frequency of drug and alcohol-related problems during the last three years was obtained for 12 different problems, more than half of the sample reported specific performance impairments and absences from work as a result of drug-related problems. In about two out of five cases, organizations had dismissed employees for drug related reasons. This study also compared the five most frequent problems related to drug and alcohol for the same 237 respondents.

The results indicated that drug and alcohol use were associated with the same types of problems, but those associated with alcohol occur more frequently than those of other drugs. More respondents thought drug and alcohol problems in combination are increasing rather than decreasing. Also, 87 % (N=65) of the respondents thought an increase in the number of workers with prescription drug problems had taken place over the last three years. The percentages of respondents concerned about alcohol and drugs as potential causes of work-related problems were as follows: alcohol (87%), prescription drugs (64%), cannabis (54%), opiates (53%) and stimulants (50%). Alcohol was clearly the priority concern, with prescription drugs second. Twenty three enterprise respondents reported that 1-5 problem drug users had been identified in their enterprises and fifteen said 6-15 persons had been identified as having drug use problems.

A recurrent issue concerning workplace substance use and abuse is whether workers substance use should be a concern of employers. Some employers saw productive employment as incompatible with any illicit drug use, whether it takes place at the work site or elsewhere. Others indicated that the employer's concern should be only with job performance and that the private lives of workers were not their business. A recent review indicated that alcohol and other drug use by work force members cannot be reliably inferred from performance assessments, since performance decrements may have many causes. Conversely, performance decrements are often not obvious despite alcohol and other drug uses. More direct measures of the quality of worker performance hold promise for determining workers' fitness to perform specific jobs at specific times, regardless of the potential cause of impairment

(Normand et al., 1994). Drug effects seen in the workplace depend partly on the Performance requirements of the job. Tasks that require higher level judgments, constant attention, immediate memory and fine motor skills are more easily disrupted by drugs than physical labour. Marijuana, for example, may disrupt cognitive functions, increase response time and lower psychomotor accuracy. Opiates, even in low doses, may bring about mood changes, decrease activity and impair psychomotor skills related to driving and related tasks. Cocaine, at low doses, may enhance performance on simple tasks as long as the takers do not over estimate what they can do and do not take risks beyond their capacity to perform. Repeated use of cocaine, crack or related substances quickly lead to compulsive use, dependence and problems on and off the job (Butler, 1993).

Smith (1993) found that two-thirds of all participants agreed that alcohol and drug abuse resulted in significant costs in European workplaces. Enterprises, workers and employers did not significantly differ in this question when statistical tests were carried out on questionnaire responses. Costs were primarily absenteeism, reduced motivation and accidents or injuries at work. In a study of the relationship between drug use and subsequent job performance at the United States Postal Service, pre-employment tests of applicants were correlated with later behaviour on the job at several intervals. Positive pre-employment drug test results were correlated with absenteeism and involuntary separation. It was found that differences between those who tested positive and those who tested negative increased with time. In this study, updated absenteeism and turnover data were collected for inclusion into the utility analysis follow-up. The most recent update United States Postal

Services indicated that the absenteeism and turnover differences between the positives and negatives have further increased but the rate of increase appears to be levelling off. Estimates based on employees who had an average of 3.3 years of tenure suggest that the Postal Service, by screening out applicants who test positive for drugs, can expect to save approximately \$105 million dollars in absenteeism and turnover cost over the tenure of one cohort of employees (United States Postal Service, 1991).

The cost-effectiveness of the screening technique depends on the impact of the base rate of the behaviour involved. If a workplace or other setting has a very low rate of drug use to begin with, fewer applicants will test positive and the programme cost to find an employee who tests positive will increase. The implications of this point were stressed in a meeting on drug and alcohol testing in the workplace at which it was stressed that "any economic analysis of workplace drug screening is likely to be greatly influenced by the prevalence of drug use in the population screened" (Zwerling, 1993, p. 155). Drug problems have a costly impact on the workplace as well as the community. Employers and workers alike are concerned about the consequences of drug and alcohol abuse. One expert noted that "alcohol and drug involvement in accidents, and the impact on such employment indicators as absenteeism, turnover, medical claims, safety risk and lost productivity, confirm that there are direct costs involved with drug or alcohol use in the workplace" (Butler, 1993, p. 241). Additionally Oakley and Ksir, (2002) noted that in the workplace, drug use is costly in terms of lost work time and inefficiency. Drug users are more likely to be involved in occupational accidents than non users, endangering themselves and those around them

In many instances, findings from experimental studies on the impact of substance use, particularly alcohol and sedative use, on impairments in reaction time, reasoning, coordination, care, and judgment may explain why even minimal amounts of substance use while working may increase a worker's risk of being injured on the job (Normand et al., 1994). On the other hand, laboratory studies have indicated that moderate levels of drug use may not affect a worker's ability to perform certain work-related tasks, particularly those that are simple and repetitive (Holcom, Wayne, & Simpson, 1993).

Studies have also consistently shown that homicide victims often have high levels of alcohol in their bodies, which may be attributed to the alcohol and other drugs' suppression of the central nervous system, which could lead to an increase in provocative behaviour. Alternatively, people who are intoxicated may be more likely to be targeted for other crimes (e.g., robbery) that result in homicide (Goodman et al., 1986). In these cases, the substances acute intoxication effects are considered the primary causal mechanisms linking substance use to injury, though risk of injury is certainly influenced by environmental conditions. Employees with alcohol-related problems have health care costs that are double when compared to those of their peers (Horgan et al., 2005). In fact, individuals who abuse alcohol use four times as many hospital days as non-drinkers. Furthermore, almost half of all emergency room visits for trauma and/or injury are alcohol-related (Frone, 2003). Excessive use of alcohol and other substances is connected to untreated depression or other mental illnesses. High expenditures for physical health care often mask substance abuse. Excessive consumption of alcohol puts employees at risk for developing a range of costly physical health problems,

such as liver disease, heart disease, cancer, pancreatitis, breast cancer, and fetal alcohol syndrome in children (Ballantyne & Mao, 2004).

Mao (2007) found that in 2003, an estimated \$21 billion was spent in the United States for treatment of substance-related disorders. Private insurance payments on substance abuse claims grew at an average rate of only 0.1% annually between 1993 and 2003, while the private payment annual growth rate for all health care increased by 7.3%. Alcohol and drug abuse not only bring higher costs for the substance abuser, but also for dependents. Substance abuse is common at the workplace, and the costs of substance abuse are high for employers. Twenty million adults classified as having problems with substance dependence or abuse in 2007, approximately 12 million (60%) were employed on full time basis. Gfroerer (2007) noted that addition to higher absenteeism and lower job productivity and performance, substance abuse also leads to greater health care expenses for injuries and illnesses. Furthermore, safety and other risks for employers can increase workers' compensation and disability claims. Hernandez (2009) stated that a large number of drug addicts are employed today and they are more vulnerable to accidents at the workplace. Nearly 64% of all accidents were directly or indirectly related to drug abuse at workplace. Drug abuse at workplace is a serious issue. It impairs an employee's judgment and coordination, which leads to increased risk of accidents, and reduced productivity. Arthur (2009) noted that drug use not only affects the individual concerned, but also endangers the circle of people surrounding the abuser, and has the potential to destroy the person's career and relationships. Alcohol impairs the brain's proper functioning. It reduces the ability to make sound judgments and

decisions, and increases the likelihood of mistakes through the loss of spatial awareness and control of the body. As heavy drinkers or drug users become more unreliable, their absenteeism increases while their productivity diminishes.

Lastly, Frone (2006) indicates that the three most consistent predictors of illicit drug use and impairment in the workforce or in the workplace were gender, age, and working in certain occupations. Young women in high-risk occupations and young men in either high-risk or low-risk occupations had elevated workforce and workplace illicit drug use. Forty-three percent of young women with high risk occupations reported using illicit drugs, and 11 % of those reported using them in the workplace. Fifty-six percent of young men in high-risk occupations reported using illicit drugs, and 28 percent of those reported using them in the workplace. Twenty-five percent of young men in low-risk occupations reported illicit drug use, and eight % of those reported using them in the workplace. From the review it shows that although drug use issues will have a negative impact on any workplace over time, they are particularly damaging in industries where employees' physical safety may be at risk from others, such as in construction, mining or distribution industries.

Effects of Drug Use on Family and Friends

Family is defined as a primary group whose members are related by blood, adoption or marriage and who usually have shared common residence, have mutual rights and obligations and assume responsibility for primary socialization of their children. Stability of relationships, environment and expectation as a powerful force in helping people manage their lives,

especially for children and young adults. Families can have a powerful influence on shaping the attitudes, values and behaviour of children, but how do they compare with peers in terms of influence on drug taking? The influence of peer groups, which is usually strong during formative years of youth, may be stronger than that of parents in some cases. Antwi et al. (2003) found that substance abuse among the youth is highly influenced by family, friends and acquaintances both at home and in the community. Research on the impact of drug using member on the family indicates severe and enduring stress experienced by family members, which in parents can result in high levels of physical and psychological morbidity (Orford et al., 1998; Velleman et al., 1993). A recent government report on supporting families of drug users in Scotland from Effective Interventions Unit (EIU) identified four key areas of impact on relatives: physical and psychological health; finance and employment; social life; and family relationships (EIU, 2002). Problematic behaviours such as stealing, violence, argumentativeness and unpredictability in the home have all been identified as contributing to the difficulties of living with a family member who develops drug problems (Velleman et al., 1993). Gerace (1993) noted that with siblings of problem drug users, they considered that because their parents were so much into taking care of their ailing sibling there was less time, attention and energy available to them. This was a source of some resentment and sadness for them too, although there was a greater sense of the pressing needs of the ill child.

Alcohol abuse and other substance use have been studied among family members. It is well known that having biological relatives with alcoholism increases the risk in unaffected individuals. Also, families with

histories of psychological and social pathology may be at increased risk for alcohol problems. Reports of disturbed family life related to drugs are frequent in the literature. In Ireland, it was found that disrupted family life appears to be a major risk factor for drug abuse among some young persons. As many as 10% of the young people between 15 and 20 years of age in the northern part of Dublin were addicted to heroine (Corrigan, 1986). The problems of male partners may affect women in the form of difficulties in interpersonal relationships, instability, violence, child abuse, economic insecurity, deprivation of schooling and risk of sexually transmitted disease, including HIV infection (Corrigan, 1986). In a family situation where one person is substance dependent and the other is not, questions of codependency arise. Co-Dependents Anonymous (CoDA) describes codependency as being overly concerned with the problems of another to the detriment of attending to one's own wants and needs (CoDA, 1998). Codependent people are thought to have several patterns of behaviour:

1. They are controlling because they believe that others are incapable of taking care of themselves.
2. They typically have low self-esteem and a tendency to deny their own feelings.
3. They are excessively compliant, compromising their own values and integrity to avoid rejection or anger.
4. They often react in an over sensitive manner, as they are often hyper vigilant to disruption, troubles, or disappointments.
5. They remain loyal to people who do nothing to deserve their loyalty (CoDA, 1998).

This assertion is supported by Oakley and Ksir (2002) who reiterate that drug use can disrupt family life and create destructive patterns of co-dependency; that is the spouse or the whole family out of love or fear of consequences inadvertently enables the user to continue using drugs by covering up, supplying money or denying there is a problem.

Research on transmission of drug use problems to other siblings in the family has shown that younger brothers or sisters of drug users have been identified as at increased risk of drug exposure and drug initiation. Boyd and Guthrie (1996) reported that 60 % ($n = 54$) of their sample of problem drug users had a sibling with a drug or alcohol problem. Similarly Luthar et al. (1993) reported that siblings of problem drug users were particularly vulnerable to developing problems with drugs, alcohol and antisocial personality disorders. Researchers have pointed to the links between parental monitoring and control on a sibling's drug exposure and attitudes towards drug use (Hammersley et al., 1997). The associations between family dysfunction (often including parental drug or alcohol problem use and childhood experiences of sexual or other abuse) have been observed in much previous research on the antecedents of problem drug use (Marcenko et al., 2000). Duncan et al. (1996) have noted the significance of siblings in providing positive reinforcement for delinquent acts (this included drug use). Older brothers or sisters can serve as 'influential friends' and legitimate deviant behaviours by example through coercion or through competitiveness (Jones & Jones, 2000).

Oakley and Ksir (2002) describes some of the effects of drug use on the family as the users' preoccupation with the drug plus its effects on mood

and performance can lead to marital problems and poor work performance or dismissal. Ohene (2008) indicates that pregnant mothers who use drugs have poor self care in general and bear a much higher rate of low birth weight babies than average. Many drugs example cocaine and heroine cross the placental barrier resulting in addicted babies who go through withdrawal soon after birth. Foetal alcohol syndrome can affect children of mothers who consume alcohol during pregnancy. Ohene added that substance abuse could also have negative impact on families, delay in decision-making, imbalances in resource distribution and distortion of family routine. Research shows that family members of alcohol and drug abusers also incur more health care costs and have more health issues. A 2007 study showed that after adjusting for demographic differences, the family members of individuals with alcohol and/or drug problems health care cost an average of \$433-490 more per year than their peers (Ray et al., 2007). These family members are also more likely to be diagnosed with substance use disorders, depression, and trauma even when compared to family members of persons with other chronic diseases, such as asthma and diabetes (Ray et al., 2007).

Adults who associate with adolescents are likely to influence the attitudes and behaviors of the adolescents. If adolescents see their parents or other significant adults using drugs or if the attitudes of the adults are tolerant of drug use, adolescents may be inclined to experiment with drugs, acquire accepting attitudes toward drug use, and choose friends who use drugs. Often parents are significant adults for adolescents but other relatives, teachers, neighbors, and employers may also influence adolescent drug use. It is probable that adolescents acquire attitudes favorable or unfavorable to drug

use through their interactions with parents and other adults. There was no research on how adults other than parents may influence the risk of adolescent drug use. However, there is a substantial amount of research demonstrating that parental drug use is positively associated with drug use among adolescents (Hawkins, Catalano, & Miller, 1992). From the review it is quite clear that drug use member of a family has great negative effects on the family and drug using friends have effects on his peers when the peers are have some association with the drug user.

Small Scale Mining in Ghana

Small scale mining [SSM] according to Heemskerk (2002) refers to all formal and informal, manual and mechanized mining that uses crude methods to extract gold from secondary and primary ore bodies. The activity of SSM in Ghana is said to have preceded the advent of large scale industrial gold mining especially Ashanti and Western regions where surface and alluvial gold was exploited using varying crude techniques and methods (Agbesinyale, 1992). The minerals act of 1965 made the purchasing/sale and possession of gold without license illegal and also branded SSM in Ghana illegal although little activities were still ongoing. Up to the 1980's SSM activities in Ghana remained largely unregulated and not supported by government. Beginning the 1980's, initiatives were undertaken to streamline legislative and policy for the sector and regularize operations (Yakubu, 2002).

The government also recognized that the sector is an integral source of employment in rural regions of the country. Small Scale Mining which has traditionally played an important role in the economy of Ghana has also received attention under the new liberalized mining environment in Ghana.

Under the minerals restructuring reforms in Ghana, the government legalized SSM through the enactment of PNDC law 153 on SSM in 1989. Under this law, the mining and minerals commission was made responsible for the registration and supervision of small scale miners in the country (Hilson, 2001). But even with the passing of the law to formalize their activities, more people mostly the youth are still engage in the illegal SSM than legalized mining activities in the country. To this effect there are two groups of SSM, registered and unregistered (illegal) SSM. According to Adjapong (1998) it is estimated that over 6000 illegal small scale miners and 117 registered small scale miners are located in Tarkwa district of Western region. Hilson (2001) observed that there is the tendency for an area endowed with natural resources to attract high number of people to a community with the aim of exploitation. He indicated that this sometimes lead to overcrowding for little social amenities and environmental problems such as poor sanitation, water, air pollution, land degradation as well as health related problems such as prostitution, drug use and abuse, drunk driving etc.

Small Scale Mining is highly subdivided with a hierarchy of workers with different labour relations based on combinations of ethnicity, gender, migrant status, access to capital etc. these include Sponsors (financiers), buyers of gold (sometimes are also the sponsors), Ghetto owners (pit owners), and the different classes of workers which include Dynamiters, “Loco boys”(those who transport the blasted ore from the pit to the surface), “Kaimen” (those who pound the ores in metal mortars with metal pestles), Shanking ladies (those who sift the pounded rock with a scarf to separate powder from chippings). Among the categories of mine workers, the Shanking

ladies who are the lowest in the hierarchy of labour relations with the lowest returns (Awumbila & Tsikata, 2004). The modern SSM utilizes old techniques of digging up trenches with old implements such as pickaxes, shovel, sluices, pans and a variety of rudimentary implements used for processing and concentration of gold from the ores. Small scale miners recently use water pumps to pump water from their shafts and continue with the digging process. They also use mercury and cyanide to retrieve the gold from the ores (Mensah & Ababio, 2011). Small Scale Mining in the Asutifi North District shows a particular trend in which whereas sponsors, buyers, dynamiters and ghetto owners are mostly locals, most of the lower workers such as the Loco boys, Kaimen, Chisellers and Shanking ladies are migrants usually from the northern part of Ghana. Tsuma (2009) noted that there are arguments among scholars studying SSM sector that migrants engage in SSM (galamsey) work much more than the indigenes. Modern SSM tends to have higher concentration of labourers engaged in arduous manual work for menial wages. Such intensive manual work weakens the immune system of the miners making them more susceptible to diseases (Pardie & Hilson, 2006).

In Ghana, one of the earliest estimates of national artisanal SSM employment was put forward by the World Bank in 1995 which in its staff appraisal report, Republic of Ghana, mining sector development and environment project indicated that there were thirty thousand small scale miners operating in Ghana (World Bank, 1995). This figure however failed to take into account the soaring numbers of illegal SSM contingent giving rise to Appiah (1998) assertion that the sector provides direct employment to over two hundred thousand Ghanaians, the majority of whom are rural dwellers

with as many as six hundred thousand individuals dependent upon it for its existence for their livelihood. Aryee et al. (2003) concedes that the exact employment figures lies between fifty thousand and three hundred thousand, explaining that “the rather wide range of estimates bears testimony to lack of readily available accurate and reliable data due to the sparsely location and remote areas of operation” (p. 131) however he indicated that about 60% of Ghana’s mine labour force is employed in the SSM.

The current high gold price has attracted hundreds of unemployed youth in the country to undertake SSM. Most of these miners operate illegally even though the SSM law PNDC law 218 of 1989 and Act 703 of 2006 define the procedures required for their operation (Kuma & Yendaw, 2010). There may be different reasons why people engage in SSM. Tsuma (2009) noted one reason why people engage in SSM, gold mining is a lucrative venture and their quest to have a better life, large numbers of unemployed youth from nearby communities move to mining towns but are unable to secure jobs in the large mining companies due to their low educational levels and therefore they turn to galamsey work to achieve their dreams. Another reason stated in Ayling and Kelly (1997) indicated that most young people engage in SSM are driven by the prestige and high lifestyles that miners enjoy. They noted that on the average small scale miners make close to 100 United States Dollars (GH¢200.00) per a day and since they appear to be guaranteed the same amount each day they spend it luxuriously. Mensah and Ababio, (2011) also noted that social injustice and high levels of unemployment in the country may have contributed to the high rate of the youth engaged in SSM.

Appiah (1998) was among the first researchers to put forward estimates on income-earning potential in the Ghanaian ASM sector in a research study tagged organization of SSM activities in Ghana. In the study, the author indicated that a small scale mine worker in Ghana can earn as much as US\$7 each day, which for a five day work week, amounts to US\$1820 annually. The findings of the study revealed that incomes within the ASM study sites vary between and within groups. For example, carriers in the Tarkwa-Prestea areas who are mostly women earned as little as GH¢ 1.20 for a 10-hour work shift, which was further dependent upon whether or not mine owners declared profits. Crushers and washers, on the other hand, reported earnings in the range of GH¢ 2.0 per 10-hour shift, depending on the availability of work. At the other end of the income spectrum lie the buyers/sponsors, who could earn as much as GH¢ 4000.00 monthly (a lot of these buyers live permanently outside the study areas but do come there regularly to conduct business). He noted that based on collected survey data, the median monthly income were calculated to be GH¢ 120.00 and GH¢ 50.00 in Tarkwa/Prestea and Bolgatanga, respectively as at the year 1998.

The study further noted that registered, well-established operation engaged in alluvial mining activity alongside the Ankobra River provided a somewhat more structured view of employment and earnings within the legalised segment of Ghana's ASM sector. At the time of surveying, the company employed about 34 people in for various tasks. Washers were paid GH¢ 3.00 per day or the equivalent of GH¢ 72.00 a month, whilst the site overseer and excavator operator each earned GH¢ 100.00 monthly. The on-site electrician earned a monthly salary of GH¢ 80.00. According to the author, the

generally skewed distribution of income in the ASM sector is largely due to an intricate web of financing schemes that almost always guarantee the sponsor-buyers profits, even as their clients, such as miners or cash-strapped ghetto owners, face various losses due to low ore yields (Appiah, 1998).

This study was conducted in the Asutifi North District of Ghana. The Asutifi North District is one of the local authorities in the BrongAhafo region of Ghana established by an Act of Parliament (Act 462) through a Legislative Instrument, L.I. 1773 and it is the highest administrative and political authority within its catchment area. Asutifi District is one of the Nineteen (19) districts in BrongAhafo which is currently divided into Asutifi North and Asutifi South. It is located between latitudes 6°40' and 7°15' North and Longitudes 2°15' and 2°45' West. It shares boundaries with Sunyani District in the North, Tano South District to the North East, Dormaa District to North West, Asunafo North and South Districts in the South West and AhafoAno South and North Districts (Ashanti Region) in the South East. With a total land surface area of 1500 sq. km, the district is one of the smallest in the BrongAhafo Region. There are a total of 117 settlements in the district and four paramuncies, namely: Kenyasi No.1 Kenyasi No.2, Hwidiem and Acherensua. The district capital is Kenyasi which is about 50km from Sunyani, the regional capital of BrongAhafo through Atronie and Ntotroso.

This physiographic region is underlined by precambrian rocks of Birimian and Dahomeyan formations. The Birimian formations are known to be the gold bearing rocks. The Birimian rocks also have a high potential for Manganese and Bauxite. Currently gold is being mined in area where these rocks are found by Newmont Ghana Gold Limited one of the biggest mining

companies in the world. These areas include Kenyasi No. 1 & 2, Ntotroso, Gyedu-Wamahinso and other smaller communities. However other exploration activities are on-going in other communities within the district. Diamond is discovered at Wamahinso. There is also a widespread deposit of sand and clay in the district. The Sand deposits can be found at Kenyasi, Gambia No.2, Hwidiem and Acherensua whilst the clay deposits can be found at Nsunyameye and Dadiesoaba. There are rounded out crops of granite found over the Birimian rocks at KwadwoAddaeKrom, Goa Asutifi, Georgekrom and Konkotreso which have high potential of iron and bauxite (Asutifi District Assembly, 2006).

Summary

The literature review indicates that drug use by the youth is an ongoing and escalating global health problem. A review of the types of drugs showed seven types of drug classifications. The frequency of drug use showed that for drugs of medication, there are routine orders of use of a particular drug but for non-medication and illicit drugs, the frequency of intake depends on factors like the purpose for which the drug is taken, the kind of drug being taken, and the desired results expected by the user. Sources of drugs in Ghana include drug stores/pharmacy shops, traditional healers, drug traffickers, drug peddlers. Several reasons for the use of drugs were identified in the literature such as personal factors, family factors, social factors, gender factors, community and societal factors, school factors, and vulnerable populations. These factors identified were in agreement with the proponent of the problem behaviour theory. An overview of the SSM sector indicated that SSM employ thousands of the youth. The review also looked at why more people are getting

themselves involved in a dangerous but yet very lucrative adventure and the impact of SSM on small scale miners and the environment. Perceptions of small scale miners using drugs was captured but lack the necessary study to indicate the perceived effects of drug use on the health, work and employment and social life of a particular population such as the small scale miners. The long term consequences of drug use and abuse includes impaired psychological functioning and associated health problems, serious criminal involvement, marital problems, divorce and job instability which no country can afford to ignore because it can have a great impact on the total development of the country.

CHAPTER THREE

METHODOLOGY

In this chapter is a plan for the process of finding a solution to the research problem (Toseland, 2000). It consists of research design, population, sample and sampling procedure, instrument, data collection procedure and how data obtained will be analysed. It also looks at the soundness and trustworthiness of the data collection instrument as well as ethical considerations. The purpose of the study was to describe the nature of drug use by small scale mine labourers and the perceptions about the effects of drug use on small scale mine labourers in Asutifi North District of Brong Ahafo Region.

Research Design

A quantitative research approach was used for this study. A cross sectional survey design was chosen for this study. Surveys aim at describing and quantifying the distribution of certain variables in a study population at one point in time. Cross sectional surveys cover a selected sample of the population but generalizability is limited by sample of the population and population definitions. According to Varkevisser et al. (2003) a quantitative study could be carried out on a small scale as a case study or on a large scale as a cross sectional survey.

Population

According to small scale miners committee at the mining site, the population of small scale mine labourers in Asutifi North District is about 500

people. This population comprises of the different classes of workers which include Dynamiters (those that uses dynamite to blast the underground rocks), Diggers (those who use simple tools to dig and crack the blasted rocks), “Loco boys” (those who transport the blasted ore from the pit to the surface), “Kaimen” (those who pound the ores in metal mortars with metal pestles), Shanking ladies (those who sift the pounded rock with a scarf to separate powder from chippings). Among the categories of small scale mine workers, the Shanking ladies are the lowest in the hierarchy of labour relations with the lowest returns.

Other associate small scale miners include Sponsors (financiers), Buyers of gold (sometimes are also the sponsors) and Pit owners (Ghetto owners). With the exception of the Sponsors, Buyers of gold and Ghetto owners, the rest of the groups are small scale mine labourers who work for the Sponsors and sometimes the Ghetto owners for a wage (Awumbila & Tsikata, 2004). Apart from these groups, there are also other people who provide various services at the mine site. These include drinking spot operators, tent room owners who rent tents to the workers, food vendors, black smiths and motor cyclist who transport people to and fro the mine site (Awumbila & Tsikata, 2004).

Sample and Sampling Procedure

A sample of 120 participants was selected for the study. This sample size was selected considering the difficult nature of obtaining participants from the field of collecting data coupled with the dangerous nature of SSM in Ghana as expressed daily in the news media (Harkinson, 2003; Darbi, 2011). The inclusion criterion for the selection of a sampling unit was that the

participant should be a small scale mine labourer located in the mining site. Considerations for minimizing sampling errors in determining sample size such as the selection process, types of variables being studied, how the variables will be collected as well as elements of public relations were taken into account in selecting the sample size (Best & Kahn, 1998)

A snowball sampling technique was used to select participants from the population. This involves identifying few small scale mine labourers who led the researcher to identify other small scale mine labourers. Snowball sampling technique is especially useful when you are trying to reach populations that are inaccessible or hard to find (Trochim, 2006).

The sample was a homogenous sample of males only with age range of 15-41 years. Majority (37%) of them had had no formal education. However about 38% of the participants have had some education either to the Junior High School level or Senior High School level. Almost half (48%) of the sample are single individuals who have not married before while the rest are married individuals. Income levels of the sample range between GH¢10 - GH¢500 per week depending on the level of contribution to the work and whether there is work to be done or not.

Instrument

A researcher generated questionnaire (RGQ) was used to collect data from respondents. The RGQ items were selected from the literature. The RGQ consist of both closed and open ended questions. The RGQ consist of four (4) main sections. Section A collected data on demographic characteristics of participants such as age, sex, educational background, marital status and income level. On age of respondents, responses were categorized and coded

into five categories ranging from “15-20” as (1) through to “others” (6). Sex of respondents were categorized and coded into two categories of “male” (1) and “female” (0). Educational background of respondents were categorized and coded into five groups ranging from “No education” (1) through to “middle level certificate” (5). Marital status were categorized and coded into six groups ranging from “single and never married” (1) through to “co-habitation” (6). Income levels of respondents were also measured and coded using six responses ranging from “GH¢ 10.00 - GH¢100.00” as (1) through to “others” (6).

Section B collected data on drug use variables which include frequency of drug use; periods of drug use; cost of drug use; length of drug use and sources of the drugs. To measure the types of drug use, the drugs were grouped into “Yes” and “No” categories and coded (1) for “Yes” and (0) for “No” responses. Drug use frequencies were categorized and coded into four groups ranging from “always” (1) through to “rarely” (4). Sources of drug use were categorized into “health post” through to “relatives”. Respondents were also given the opportunity to indicate if their source has not been included in the responses provided. It was then coded as “health post” (1) through to “town bars” (9). Length of drug use, cost of drug use and drugs most frequently used, respondents were given the opportunity to state their responses. Length of drug use were categorised and coded into seven groups ranging from “1-3 years” (1) through to “can’t remember” (7). Cost of drug per day was categorized into five groups ranging from GH¢0.5 – GH¢ 2.0 (1) through to GH¢ 8.0 – GH¢ 10.0 (5). Drugs most frequently used were

categorised and scored ranging from cocaine /morphine (1) through to anafranil/viagra (10).

Section C collected data on the reasons for drug use by small scale mine labourers. The section comprises thirteen questions and was divided into three subheadings namely personal factors, social factors and environmental factors. Personal factors consisted of six questions which looked at personal reasons while social factors consisted of three questions that looked at social reasons and environmental factors consisted of four items that assessed environmental reasons for drug use. Each subheadings were responded to with a “Yes” and “No” responses. “Yes” was coded (1) while “No” was coded (0).

Section D collected data on the perceived effects of drug use on the health, work/employment, family and friends of small scale mine labourers. The section comprised nineteen questions divided according to the following subheadings: physical effects, psychological/emotional effects and cognitive effects. Physical effects consisted of 12 questions, psychological effects consisted of three questions, cognitive effects consisted of four questions and that of perceived effects of drug use on work comprised nine questions. The section on perceived effects of the drug use on family and friends consisted of six questions. The participants responded “Yes” and “No” to the items in this section. “Yes” was coded (1) while “No” was coded (0) (See Appendix A).

Validity of the Instrument

To establish validity of the instrument, initial copies of the instrument were made and distributed to colleagues of the department to answer and notify any correction that needed to be incorporated in the instrument. Copies were also given to a couple of small scale mine labourers in another mining

community in the Brong Ahafo Region to answer and their feed back was used to fine tune the instrument. Additionally copies were also given to psychiatric community health nurses of the Ankaful psychiatric hospital to make input especially in the drug classification list. Finally, the RGQ was given to some research assistants at the Department of Health, Physical education and Recreation (H.P.E.R) for them to make their input.

Reliability of the Instrument

The RGQ was pilot tested at Wamanhinso Mining Site in the Brong Ahafo Region. Data was collected from 30 participants. The collected data was statistically analysed using SPSS version 16 software. The instrument yielded a high reliability (KR-20) co-efficient of 0.797 (Kuder & Richardson, 1937).

Data Collection Procedure

An introductory letter from the Department of Health, Physical Education and Recreation (H.P.E.R) enabled me to have access to the participants through their leaders. Permission was sought from the District Assembly of Asutifi North District for their assistance. The assembly accepted my request and introduced me to one of the leadership groups of small scale miners in Asutifi North District. The small scale mine labourers were selected with the help of a trained research assistant who helped in the identification and selection of participants. The research assistant was briefed earlier on what is to be achieved in the study and the qualities of participants wanted for the study.

The survey questionnaire was self administered and responses of participants noted on the questionnaire. Before administering each

questionnaire, a verbal consent was sought from each participant. Each questionnaire was given codes to ensure privacy and confidentiality of participants is maintained. Data collection was conducted for eight (8) working days with at least 15-20 small scale mine labourers selected per day. These days exclude Tuesdays since it is a non working day for the small scale miners. At least 20-30 minutes was spent with each respondent. After the collection of data, the leaders of the small scale mine labourers were informed of completion. Questionnaires were then sorted out and questions items coded for statistical analysis.

Data Analysis

The purpose of data analysis was to organize the results of the study and elicit meaning from research data (Polit & Beck, 2008). The instrument used consisted of four sections: demographics, drug used by small scale mine labourers, reasons for drug use and perceived effects of drug use on health, work, family and friends. Structuring of questions in each section involved mostly nominal scales of measurement; however section B had some questions to be open ended questions. The data collected was sorted out according to the various choices of drug use. Data for demographics of respondents were analysed using frequency counts and percentages.

Research question one, two, three, four and five were analysed using frequency counts and percentages because the scales of measurement for research questions one, two, three, four and five are nominal scale. Research question six measures whether there is an association between frequency of drug use and socio-demographic characteristics of participants such as age, marital status and income levels. Chi-square test for independence was used to

test for the association between frequency of drug use and socio-demographics because the variables for testing are nominal variables (Pallant, 2005). Frequency of drug use was the dependent variable and socio-demographic data of participants was the independent variable. Ages of small scale mine labourers were sub-categorised into youth (1) and adult (2). To explore association between frequency of drug use and income levels of respondents, income levels of respondents were also sub-categorised into higher income levels (2) and lower income levels (1). To explore association between frequency of drug use and marital status of respondents, marital status was also sub-categorised into married (2) and unmarried (1) (Pallant, 2005).

CHAPTER FOUR

RESULTS AND DISCUSSION

The purpose of this research study was to describe the nature of drug use by small scale mine labourers and the perceived effects of drug use on the small scale mine labourers in Asutifi North District of Brong Ahafo Region. This chapter presents the results and discussion of data obtained from Small scale mine labourers in Asutifi North District of Brong Ahafo Region. For each research question, the results are presented followed with the discussion.

Research Question 1: What is the Extent of Drug Usage among Small Scale Mine Labourers in Asutifi North District?

To determine frequency and length of drug use among small scale mine labourers in Asutifi North District, frequencies was calculated. The results showed that drugs used by small scale mine labourers in Asutifi North District include Caffeine (Coffee, Ataya), Alcohol, Nicotine (Cigarettes), Marijuana, Painkillers, Lacker, Ecstasy, Herione, Valium (Blueblue, Librium), and Cocaine as shown in Table 1. The most commonly used drug by small scale mine labourers in Asutifi North District was marijuana with 31.8% respondents. This was followed by 23.9%, 18.6%, and 17.7% responding to Nicotine, Alcohol and Caffeine respectively. These findings suggest that the most common drugs used by the small scale mine labourers are Caffeine, Alcohol, Marijuana and Nicotine whiles the most used drug by small scale mine labourers in Asutifi North District is Marijuana as shown in Table 2.

Table 1: Drugs Used by Small Scale Mine Labourers

Drugs Used	Yes	No
	N (%)	N (%)
Cocaine/Morphine	1 (8.0)	119 (99.2)
Codiene/Herione	2 (1.7)	118 (98.3)
Valium/Blueblue/Libruim	2 (1.7)	118 (98.3)
Ecstasy/Spanishfly/Anafranil	5 (4.2)	115 (95.8)
Glue/Gasoline/Lacker	13 (10.8)	107 (89.2)
Painkillers	42 (35.0)	78 (65.0)
Tobacco/Nicotine/Cigarettes/Jot	59 (49.2)	61 (50.8)
Alcohol/Akpeteshie/Wine	60 (50.0)	60 (50.0)
Cocoa/ Coffee/Ataya	66 (55.0)	54 (45.0)
Marijuana/Wee/Ganja	68 (56.7)	52 (43.3)

Table 2: Drugs Most Commonly Used

Drug most commonly used	Frequency	Percent
Marijuana/Wee/Ganja	36	31.8
Nicotine/Tobacco/Cigarettes/Jot	27	23.9
Alcohol/Akpeteshie/Wine	21	18.6
Caffeine/Coffee/Ataya	20	17.7
Painkillers	9	8.0
Total	113	100

N=120

On frequency of drug use, seven respondents did not respond to the question on frequency of drug use. Out of the 113 (94.2%) respondents who responded to the question on frequency of drug use 56 (49.6%) respondents use the drugs always, 30 (26.5%) responded they use the drug often and 25 (22.0%) responded that they use the drug sometimes. Only 2 (1.8%) indicated

they rarely use one of the drugs. Based on these findings, it could be deduced that marijuana and cigarettes are used on regular/habitual bases by the small scale mine labourers as shown in Table 3.

Table 3: Frequency of Drug Use

Drugs	Frequency of Drug Use			
	Always	Often	Sometimes	Rarely
Caffeine (Coffee, Ataya)	11	5	4	0
Alcohol (Akpeteshie, Wine)	9	6	6	0
Nicotine (Cigarettes, Jot)	17	5	3	2
Marijuana (Wee, Ganja)	17	11	8	0
Painkillers	2	3	4	0
Total	56	30	25	2

N=120

The study findings about the frequency of drug use in this study is similar to Odgers et al. (1997) who indicated that over 50% of current drug users use alcohol and marijuana on frequent basis more than once in a day. UNODC (2003) also support the findings that daily use of marijuana reported highest of 52% for substance users. The findings are also consistent with Selby (2012) who also noted that in Ghana, marijuana and alcohol are the commonly used drugs by the youth. National Survey on Drug Use and Health [NSDUH] (2008) data indicates that Marijuana is the most commonly used illicit drug, with 25.8 million individuals 12 years of age and older representing 10.3% reporting past year use which was in agreement with the findings. In contrast, Affinnih (1999) noted that a shift is underway from the traditional marijuana abuse to crack cocaine and herione even though the study was conducted in the Greater Accra region of Ghana. A similar trend of the present findings on drugs most frequently used is indicated in the WDR

(2011) which reports that the world's largest illicit drug product in volume terms is cannabis herbs/ marijuana followed by cannabis resin. WDR (2007) also reported that Ghanaians use marijuana more than five times that of the world average which as a result has made Ghana the leader of African countries and the third in the world in cannabis or marijuana use. This assertion was also supported by Acquaye (2001) who indicates that marijuana is the major drug of abuse by the youth in Ghana and the age of incidence for the drug use is 12 years which is relatively low. From SAMHSA (2004), frequency of drug use of an individual may be described as regular/habitual user when that individual uses the drug more than once a week. According to Office of National Drug Control Policy [ONDCP] (2004) increasing the frequency or dosage over time may lead to tolerance and physiological dependence. Regular or habitual use is predictive of continued future use. Therefore, it can be concluded that small scale mine labourers in Asutifi North District are regular/habitual users of Marijuana, Alcohol and Cigarettes and therefore predictive of continued future use.

On length of drug use, the results shows that 111 (92.5%) respondents out of 120 sampled responded to the question on length of drug use. About 64 (57%) have been using at least one of the drugs most frequently used by small scale mine labourers in Asutifi North District for the past 1-5 years. Thirty four (30%) of the respondents reported to have used at least one of the drugs for the past 5-10 years whiles 15 (13%) reported to have used one of the drugs over 10 years. Generally, the findings have revealed that since majority of the small scale mine labourers have been using the drugs for the past 1-5 years

and these drugs are used frequently, it suggest that most of them are heavy illicit drug users of ages 21-35 years as shown in Table 4).

Table 4: Length of Drug Use

Drugs	Length of Drug Use (Years)				Don't know
	<1 - 5	>5 -10	>10 - 15	>15 – 20	
Coffee, Ataya	13	5	2	1	0
Alcohol	7	11	0	3	0
Cigarettes	17	7	3	2	1
Marijuana	19	11	2	0	1
Painkillers	8	0	0	0	0
Total	64	34	7	6	2

N=120

According to Wright and Davis (2001) heavy marijuana use can be defined as using marijuana on at least 300 days in the past year. Heavy illicit drug use including marijuana is defined as using at least one of the following: cocaine (including crack), heroine, hallucinogens (including LSD and PCP), inhalants, or any prescription-type psychotherapeutic used non-medically on at least 50 days in the past year, regardless of marijuana/hashish use. Marijuana/hashish users who also had used any of the other listed drugs on at least 50 days in the past year were counted as heavy users. From earlier results, it indicates that small scale mine labourers in Asutifi North District use these illicit drugs frequently and most of them have been using the drug for the past 1-5 years, therefore from the definition on heavy illicit drug user, it indicates that most of the small scale mine labourers of Asutifi North District can be described as heavy illicit drug users whose ages ranges between 21 and 35 years.

Research Question 2: What are the Sources of Drugs Used by Small Scale Mine Labourers in Asutifi North District?

On sources of drug use, the results show that 112 (93.3%) respondents out of 120 sampled responded to questions on sources of drug use. Seventy two (64%) obtain the drug from mine shops. This was followed by about 17 (15%) and 10 (9%) respondents indicating that they obtain the drug from ghetto pushers and friends respectively. This findings suggest that most of the drugs used by the small scale mine labourers are easily obtained from the surrounding mine shops at the sites as shown in Figure I.

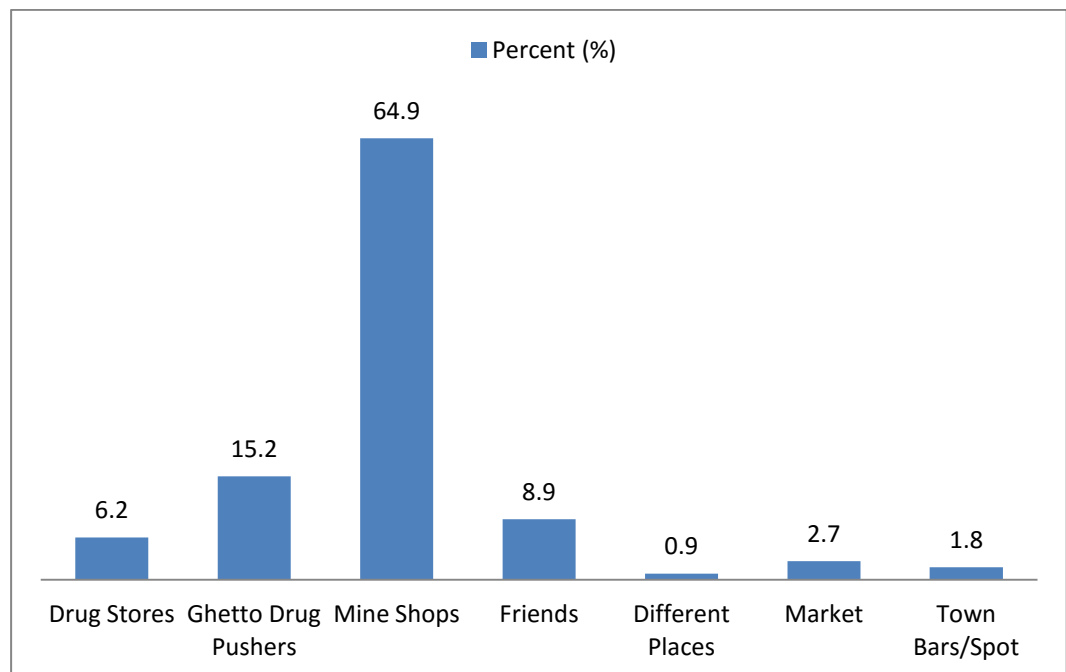


Figure I: Distribution of Respondents' Sources of Drugs.

Senah (1995) shares a similar opinion that in Ghana, drugs most frequently used can be obtained easily from the communities because most of them are produced in the local communities as well as through a number of sources such as drug stores, drug peddlers and the natural environment. Omage and Omage (2012) also noted that drug use substances are certainly accessed from certain places for free or in exchange for money. Most drug

users get the drugs from licensed dealers, multipurpose shops or drinking bars or restaurants (30% each). Some get these drugs equally from hospitals and friends (20% each), 12% held that drug users access these drugs from home, while 10% respondents were also of the opinion that drug users steal these drugs and yet others get them from illegal hideout (10%). They indicated that a lot of youth use drugs illicitly and they get them from various right or wrong sources. According to Goode (2008) there are two absolutely necessary preconditions for drug use, the predisposition or motive and susceptibility to do so, and the availability of one or more psychoactive substances. Each of these preconditions is necessary but not sufficient to explain drug use. If a drug is not available in a particular locality, drug use is not possible whether or not a predisposition to use is present. Likewise without the predisposition to use drugs, the use of drugs cannot take place by itself. Availability does not explain use. Each is an essential or necessary condition for use; but neither is sufficient for it to take place. Kandel and Faust (1975) added to the assertion that one possible reason for drug use by young people is the easy accessibility and availability of the drugs to them. According to Jessor and Jessor (1977) the availability of drugs is an important factor as to whether drugs are used or misused. In addition, availability may also influence or dictate patterns of drug use in a given area or sub-culture at a given time. This implies that availability of the most commonly used drugs in the communities and easy access to these drugs influence the small scale mine labourers to its use.

Research Question 3: What is the Cost of Drugs used by Small Scale Mine Labourers in Asutifi North District?

Cost of drugs used by small scale mine labourers also showed that 104 respondents out of 120 sampled responded to the question on money spent on

drugs. Seventy six (73%) respondents reported that they spend between GH¢0.5 - GH¢2.0 on the drug per day. Twenty one (20 %) of the respondents indicated that they spend between GH¢2.1 - GH¢6.0 on the drug per day while 7 (6.7%) spend between GH¢6.1 - GH¢10.0 on the drug per day. The findings suggest that most of the drugs used by the small scale mine labourers cost relatively low. In comparing with their income levels it indicates that they are able to buy more of the drugs within a particular usage day as shown in Table 5.

Table 5: Cost of Drugs Used by Small Scale Mine Labourers

Drugs	Cost of Drug Used/day (GH¢)				
	<0.5-2.0	2.1-4.0	4.1-6.0	6.1-8.0	8.1-10.0
Coffee, Ataya	11	2	2	1	0
Alcohol	10	2	5	0	3
Cigarettes	22	3	0	0	0
Marijuana	25	5	2	2	1
Painkillers	8	0	0	0	0
Total	76	12	9	3	4

N=120

The findings of the present study shows similar trends reported by Barry (1990) who indicated that in Ghana, marijuana is the most cheaply obtained illicit drug which is packaged at ¢500. Antwi et al. (2003) contribute to these findings by stating in their study that the average cost of drugs usually abused by the youth in Ghana include Heroin: ¢500000 per teaspoon, Marijuana: ¢100-500 per roll, Cocaine: ¢500000 per head of match stick, Valium: ¢100 per tablet, Alcohol (spirits): ¢200 -500 per Tot, Cigarettes: ¢300 - 800. Generally the findings have revealed that cost of the drugs used by the small scale mine labourers are relatively low coupled with availability and

accessibility of the drugs (alcohol, tobacco and marijuana) in the mine sites (mine shops, drug peddlers, drinking spots) makes it easier for them to obtain the drugs and use them.

Research Question 4: What Reasons Do Small Scale Mine Labourers in Asutifi North District give for Using Drugs?

To explore reasons for drug use by small scale mine labourers, data was analysed using frequency counts and percentages. Reasons for drug use were categorised into three namely, personal, social, and environmental factors. Personal factors showed three factors with higher number of respondents indicative of their reasons for the drug use. These were 65 (57.5%) for 'special functions such as energy to do work', 48 (42.5%) for 'drugs provide a source of enjoyment' and 47 (41.6%) for 'reinforcement behaviour of the drug'. Social factors showed two factors with higher number of respondents. These were 47 (41.6%) each for 'accepted by peer group' and 'drug makes them confidence/brave to take risk'. Environmental factors showed one factor with the highest number of respondents. This was 'dangerous nature of the work' which had 56 (49.6%) respondents reporting on the factor as shown in Table 6. The findings of the study suggest that multiple factors/reasons may be responsible for drug use by small scale mine labourers and that there is no single factor/reason that can account for the reasons of a particular drug use. Notwithstanding, two reasons significantly stand out as the reasons for drug use these are "special functions such as energy to do work" and "dangerous nature of the work" which corresponds with the nature of work done by the small scale mine labourers.

These suggestions of multiple factors have been expressed by Gilmore et al. (1991) and White and Labouvie (1994) where they indicated that

multiple factors are needed to explain the interrelationship among various problem behaviours such as drug use among the youth. This assertion has also been supported by Abudu (2008) and Plant and Plant (1992) where they suggested that it is more correct to refer to influences or associated factors when assessing the reasons why people choose to use and abuse drugs. This is due to the multiple nature of the reason that influences drug use. Plant and Plant (1992) further suggested that it is more correct to refer to influences or associated factors when assessing the reasons why people choose to use and abuse drugs. The respondents noted one personal factor for drug use as ‘the drug provides it users with enjoyment’. Foley and Todhunter (1992) noted that a powerful stimulus for many recreational drug users is that they derive enjoyment from the effects of the drug of their choice. The respondents identified ‘reinforcement behaviour of the drug’ as one of the personal factor/reason for continued drug use. Bejerot (1972) noted that there are two distinctly different types of reinforcement behaviour of drug use. These were positive reinforcement and negative reinforcement. Each theory holds a different view of reasons for users continued drug use but both theories emphasise reinforcement behaviour as a major reason for users continued drug use. Social learning theory also proposes that the extent to which substances will be used or avoided depends on the “extent to which the behaviour has been differentially reinforced over alternative behaviour and is defined as more desirable” (Radosevich et al., 1980, p. 145). This assertion is noted by Oakley and Ksir (2002) who also suggest that reinforcement behaviour of the drug can influence an individual to continue the use of drugs.

Table 6: Reasons for Drug Use

Reasons for Drug Use	Yes	No
	N (%)	N (%)
Personal factors		
Low self esteem	7 (6.2)	106 (93.8)
Parents take it	11 (9.7)	102 (90.3)
Form of self medication	16 (14.2)	97 (85.8)
Re-inforcement behaviour of drug	47 (41.6)	66 (58.4)
You take the drug as a source of enjoyment	48 (42.5)	65 (57.5)
Special functions such energy to do work	65 (57.5)	48 (42.5)
Social factors		
Problems with education	15 (13.3)	98 (86.7)
Accepted by peer group	47 (41.6)	66 (58.4)
Confidence/brave to take risk	47 (41.6)	66 (58.4)
Environmental factors		
Lack of proper employment	21 (18.6)	92 (81.4)
Easily accessible and available	28 (24.8)	85 (75.2)
Life has become difficult	37 (32.7)	76 (67.3)
Dangerous nature of my work	56 (49.6)	57 (50.4)
N=120		

Contrary to the three personal factors identified by respondents as the reasons for drug use, personal factors such as ‘parents take it’ and ‘low self-esteem’ which features prominently in the literature as one of the main reasons for drug use had lower responses from the small scale mine labourers indicating that they believe these reasons are not the reasons for their drug use behaviour. International Narcotic Control Board [INCB] (2009) indicates that genetic make-up of an individual may lead to vulnerability to drug use problems that may not be expressed depending on the person’s environment

but the responses from the small scale mine labourers indicates that genetic factor is not a reason for their drug use tendencies.

The results for social factors showed two main reasons which have also been identified by other researchers as having very powerful influences for drug use. Huizinga, Loeber and Thornbery (1995) indicate that when adolescents associate with peers who use drugs, they are much more likely to initiate drug use. The result was also consistent with social learning theory which explains that Drug use including abuse, is determined by the extent to which a given pattern of behaviour is sustained by the combination of the reinforcing effects of the substance with social reinforcement, exposure to models, definitions through associations 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) and Brook, Brook and Richter (2001) study who also identify association with peers as powerful influences for the use of drugs. Plant and Plant (1992) indicates that risk taking is normal among young people and it appears that some individuals take more risk than others. They also stressed that risky behaviours are fostered by a variety of powerful factors most of which are difficult to counter.

The results for environmental factors show only one reason as identified by small scale mine labourers which is not featured prominently in the literature. However the other factors which are featured in various literatures were not identified as reasons for the small scale mine labourer's indulgence in a particular drug use. According to Goode (2008) there are three broad types of explanation for drug use. These are biological theories,

psychological theories and sociological theories. Each focuses on different range of factors as crucial in determining why people use and abuse drugs. Most of the theories are interrelated. A broad understanding of the various theories will give a clear picture of the myriad of factors that are associated with drug use. From the discussion, it indicates that researchers of drug use support the idea that there are multiple factors/reasons for drug use by an individual and that there is no single reason that can be attributed to as the sole reason for the use of a particular drug as suggested by Drug Scenes (1987).

Research Question 5: What are the Perceived Effects of Drug Use by Small Scale Mine Labourers in Asutifi North District?

To determine perceived effects of drug use by small scale mine labourers in In Asutifi North District, data was analysed using frequency counts and percentages. Perceived health effects of drugs on small scale mine labourers was categorised into three main effects. These were physical effects, psychological effects/emotional effects and cognitive effects. On physical effects, for each of the health effects, 78% or more Small scale mine labourers responded “No” to the physical effects of the drug use on their health except ‘increased wakefulness or alertness’ and ‘feeling of super abundant energy’ where 29.2% and 40.7% of the Small scale mine labourers responded “No” respectively as shown in Table 7. This shows that generally small scale mine labourers have negative perceptions on the physical effects of drugs use on their health.

On psychological/emotional effects, data revealed that 54% or more of the small scale mine labourers responded “No” to the psychological effects of the drugs indicating that the miners have negative perceptions of the psychological effects of the drugs use as shown in Table 7. On cognitive

effects, data revealed that 81% or more of the small scale mine labourers responded “No” to the cognitive effects of the drugs on their health indicating a negative perception of the cognitive effects of drug use on their health as shown in Table 7. This implies that generally the small scale mine labourers have negative perceptions of cognitive effects of drug use.

Oakley and Ksir (2002) pointed out some of the health effects of psychoactive drug use as the user may experience flash backs, motor control interferences, withdrawal symptoms, period of anxiety, fatigue and depression. Sussman and Ames (2001) indicates that drug use can increase a person’s violent behaviour as well as sexual activity. Miller (1990) found that in general acute alcohol or drug intoxication causes a decrease in cognitive skills. Other varied health effects of drug use are documented in the literature. For instance one of the most immediate effects of smoking cannabis is to increase the heart rate by 20% to 50% within a few minutes to a quarter of an hour of smoking cannabis (Chesher & Hall, 1999; Huber et al., 1988; Jones, 1984). When cannabis is used in a social setting, the ‘high’ may be accompanied by infectious laughter, talkativeness, and increased sociability. Cognitive changes include impaired short-term memory and attention. These make it easy for the user to become lost in pleasant reverie and difficult to sustain goal-directed mental activity (Beardsley & Kelly, 1999; Solowij, 1998). Psychotic symptoms, such as delusions and hallucinations, are very rare experiences that may occur at very high doses of cannabis use, and perhaps in susceptible individuals at lower doses (Thomas, 1993). Studies have also shown that drug use has an impact on the cognitive impairment of an individual (Mendelson & Mello, 1991; Miller, 1990).

Table 7: Perceptions of Drug Use Effects on Health

Perceived Health Effects	Yes	No
	N (%)	N (%)
Physical Effects		
Feels uneasy and restless	10(8.8)	103(91.2)
Feels a strong desire for sex	13(11.5)	100(88.5)
Have flashbacks	14(12.4)	99(87.6)
Have blackouts/blurred vision	16(14.2)	97(85.8)
Feels weak and tired	18(15.9)	95(84.1)
Feels pains in the chest{lungs }	18(15.9)	95(84.1)
Have poor appetite	19(16.8)	94(83.2)
Experience slurred speech	22(19.5)	91(80.5)
Pains in digestive tract/Nausea	22(19.5)	91(80.5)
Feels pains in the heart	24(21.2)	89(78.8)
Feelings of super abundant energy	67(59.3)	46(40.7)
Increased wakefulness/alertness	80(70.8)	33(29.2)
Psychological/ Emotional Effects		
Bad feelings and guilt	38(33.6)	75(66.4)
Feelings of sadness/loneliness	45(39.8)	68(60.2)
Have relief of tension/anxiety	52(46.0)	61(54.0)
Cognitive Effects		
Hallucinations	0(0.0)	113(100)
Feels nervous/shakiness inside	9(8.0)	104(92.0)
Experience impaired judgments	19(16,8)	94(83.2)
Experience memory loss	21(18.6)	92(81.4)
No = Negative perception	Yes = Positive perception	N=120

In general these studies collectively show marked decrease in cognitive skills from acute alcohol or drug intoxication. Extensive laboratory trials with adult alcoholics and non-alcoholics controls indicates that alcoholics are

generally slower, less accurate and perform more poorly in solving a variety of neurological and sensory motor task (Glenn & Parsons, 1991; Nixon & Parsons, 1991). In spite of all these varied physical, psychological and cognitive health effects of drug use on its users as expressed by various researches, the results indicates that generally, perceptions of physical, psychological and cognitive health effects of drug use by small scale mine labourers is very low, however they perceived that the drug use increases their alertness and provide them with increased amount of energy.

Frequency and percentage analysis were calculated to determine small scale mine labourer's perceptions of the effects of drug use on work, family and friends. On effects of drug use on work, the results indicates that over 70% of the small scale mine labourers showed negative perceptions of the effects of drug use on their work. However, two perceived effects of drug use on work showed positive perceptions of the effects of drug use on their work. These were 'energy to work for long hours' 70 (62%) respondents and 'experience any change in the way of work' 69 (61%) respondents as shown in Table 8. On drug use effects on family and friends, frequency data revealed that 50% or more of the small scale mine labourers had negative perceptions of the effects of drug use on their family and friends. However, about 77 (68%) of the small scale mine labourers reported "Yes" to the question on 'families aware of the drug they use' indicating positive perceptions of their family members being aware of the drugs they use. These implies that, small scale mine labourers have negative perceptions of the effects of the drug use on their work, family and friends, however the small scale mine labourers have positive perceptions about the drug providing them energy to work for

long hours and they experiencing a change in the way they work. They also showed positive perceptions to their family members being aware of the drug they use as shown in Table 8.

Table 8: Perceptions of Drug Use Effects on Work, Family and Friends

Perceived Effects of Drug use on Work	Yes	No
	N (%)	N (%)
Violence at work	3(2.7)	110(97.3)
Experience lateness/ absenteeism	3(2.7)	110(97.3)
Accident attributed to drug use	11(9.7)	102(90.3)
Accident/injury at work	13(11.5)	100(88.5)
Intoxication of the drug at work	22(19.5)	91(80.5)
Self employed	31(27.4)	82(72.6)
Employer complained of drug use	13(12.0)	97(88.0)
Any change in the way of work	69(61.1)	44(38.9)
Energy to work for long hours	70(61.9)	43(38.1)
<hr/>		
Perceived Effects of Drug use on Family and Friends		
Engage in violence at home	2(1.8)	111(98.2)
Friends complain of drug use	41(36.3)	72(63.7)
Changes in relations with family and friends	43(38.1)	70(61.9)
Any family member use the drug	52(46.0)	61(54.0)
Drug putting pressure on your finances	56(49.6)	57(50.4)
Family members aware of drug use	77(68.1)	36(31.9)
No = Negative perception	Yes = Positive perception	N=120

Prior research indicate about the effects of drug use on the work of an individual indicates some positive results for use of certain drugs, the present study results indicates that perceptions of the effect of drug use on small scale mine labourers are towards the energy and change in performance of work that

the drug brings to them. A recurrent issue concerning workplace substance use and abuse is whether workers substance use should be a concern of employers. Some employers saw productive employment as incompatible with any illicit drug use, whether it takes place at the work site or elsewhere. Others indicated that the employer's concern should be only with job performance and that the private lives of workers were not their business. A recent review indicated that alcohol and other drug use by work force members cannot be reliably inferred from performance assessments, since performance decrements may have many causes. Conversely, performance decrements are often not obvious despite alcohol and other drug uses. More direct measures of the quality of worker performance hold promise for determining workers' fitness to perform specific jobs at specific times, regardless of the potential cause of impairment (Normand et al., 1994). However, various effects of drug use on the work of an individual as indicated in the literature such as violence at work, accidents or injury at work, lateness/absenteeism to work, employer's concerns etc. (Butler, 1993; Khoi, 1991; Oakley & Ksir, 2002; Smith, 1993) from which respondents were supposed to respond to indicate their perceptions showed a negative perception of these effects of the drug use on work.

The results of the study also indicated that the perceptions of the small scale mine labourers towards drug use effects on their family and friends are very negative. A review of the literature shows a different picture where the use of drugs by a family member or a friend are noted to impact on the physical and psychological health; finance & employment; social life and family relationships of the user's family and friends (EIU, 2002). This position of EIU is shared by other researchers. Orford et al. 1998 noted that research on

the impact of drug using member on the family indicates severe and enduring stress experienced by family members, which in parents can result in high levels of physical and psychological morbidity. Velleman et al. (1993) indicates that problematic behaviours such as stealing, violence, argumentativeness and unpredictability in the home have all been identified as contributing to the difficulties of living with a family member who develops drug problem. Oakley and Ksir (2002) supported the argument that drug use can disrupt family life and create destructive patterns of co-dependency; that is the spouse or the whole family out of love or fear of consequences inadvertently enables the user to continue using drugs by covering up, supplying money or denying there is a problem. Ray et al. (2007) showed that after adjusting for demographic differences, the family members of individuals with alcohol and/or drug problems cost an average of \$433-490 more per year than their peers.

Lastly, Ohene (2008) noted that substance abuse could also have negative impact on families such as delay in decision-making, imbalances in resource distribution and distortion of family routine. The problems of male partners may affect women in the form of difficulties in interpersonal relationships, instability, violence, child abuse, economic insecurity, deprivation of schooling and risk of sexually transmitted disease, including HIV infection (Corrigan, 1986). However all these effects noted in the literature shows that families of drug users are faced with a lot of challenges, but small scale mine labourers in Asutifi North District have negative perceptions on the effects of drug use on their family and friends.

Research Question 6: What is the Association between Frequency of Drug Use and Socio-Demographic Characteristics of Small Scale Mine Labourers in Asutifi North District?

To explore whether there is association between drug use and socio-demographic characteristics such as age, income levels and marital status of small scale mine labourers in Asutifi North District, Chi-square test of independence was calculated at an alpha level of $p .05$. With respect to Age group, the chi-square results indicated that there was no statistical significant association between age group and frequency of drug use, ($\chi^2 (2) = 2.01, p = 0.735$). The results show that for young age groups, majority representing (43.8%) use drugs always, followed by 33.3% use drugs often while 22.9% use drugs sometimes. It was further observed that similar trends exist within the middle age groups and the adult groups, where 55.6% use drugs always, followed by 25.0% use drugs often while 19.4% use drugs sometimes for middle age groups and 51.7% use drugs always, followed by 34.5% use drugs often and 13.8% use drugs sometimes for adults. The total percentage of the sample that use drugs always was 49.6%, followed by 31.0% use drugs often and 19.5% use drugs sometimes as shown in Table 9. This trend supports the outcome of the Chi-square results that there is no statistical significant association in frequency of drug use between small scale mine labourers who are young, middle age and adults. This implies that the frequency of drug use for the young of age 15-25years, middle age of 26-30 and adults of age 31 years and above are statistically the same, hence the young, middle age and the adults are using drugs in the same frequency.

Table 9: Association between Frequency of drug Use and Age Groups

Characteristics	Frequency of Drug Use			Total	p-value
	Always	Often	Sometimes		
	N (%)	N (%)	N (%)	N (%)	
Age					0.735
Young	21 (43.8)	16 (33.3)	11(22.9)	48 (42.5)	
Middle age	20 (55.6)	9 (25.0)	7 (19.4)	36 (31.9)	
Adults	15 (51.7)	10 (34.5)	4 (13.8)	29 (25.7)	
Total	56 (49.6)	35 (31.0)	22 (19.5)	113 (100.0)	

p .05

Studies in the area of older adults and drug use is less extensive in the literature but more extensive on the young adults, however research studies seem to indicate that frequency of drug use is associated with young to mid age groups than older adults and seem to be increasing amongst the youth (Abudu, 2008; Odgers et al., 1997). According to SAMHSA (2010) illicit drug use generally declines as individuals move young age groups into middle adulthood through to maturity. Also, NSDUH (2008) report indicates that rates of drug use vary by age. Rates are highest for young adults aged 18 to 25, with 33.5 percent reporting illicit drug use in the past year. Nineteen percent of youth aged 12 to 17 report past year illicit drug use. Finally, 10.3 percent of adults aged 26 and older report past year illicit drug use. Thus, the outcome of this study does not support the literature.

Again, on test of the frequency of drug use and marital status, Chi-square test of independence was calculated at an alpha level p .05. The results revealed that there was no statistical significant association between marital status of small scale mine labourers and frequency of drug use, ($\chi^2 (2) = 1.66, p$

= 0.437). The data also shows that majority of the married small scale mine labourers (51.7%) use drugs always, 33.3% use drugs often and 15% use drugs sometimes and for unmarried small scale mine labourers, 47.2% use drugs always, 28.3% use drugs often and 24.5% use drugs sometimes. The percentage of the sample that use drugs always as 49.6%, followed by 31% use drugs often and 19.5% use drugs sometimes as shown in Table 10. This trend supports the outcome of the Chi-square results that there is no statistical significant association in frequency of drug use between married and unmarried small scale mine labourers thus drug use for married small scale mine labourers is statistically the same as the unmarried small scale mine labourers.

Table 10: Association between Frequency of drug Use and Marital Status

Characteristics	Frequency of Drug Use			Total	p-value
	Always	Often	Sometimes		
	N (%)	N (%)	N (%)	N (%)	
Marital Status					0.437
Married	31 (51.7)	20 (33.3)	9 (15.0)	60 (53.0)	
Unmarried	25 (47.2)	15 (28.3)	13 (24.5)	53 (47.0)	
Total	56 (49.6)	35 (31.0)	22 (19.5)	113 (100.0)	

p .05

Studies to compare the association of drug use in terms of married and unmarried individuals is less extensive in the literature, however research studies seem to suggest that, generally frequency of drug use decreases with married individuals and is on the high side for unmarried people. For instance studies consistently indicate that marriage reduces heavy drinking and overall

alcohol consumption and effects are similar for young men and young women, and for both African Americans and whites (Bachman et al., 1997; Curran et al., 1998; Duncan et al., 2005; Miller-Tutzauer et al., 1991) thus, the outcome of this study does not support the literature.

On income levels, Chi-square test of independence was calculated at an alpha level of $p .05$. The results revealed that there was no statistical significant association in frequency of drug use between small scale mine labourers who earn higher income and those of lower income levels, [$\chi^2 (2) = 1.91, p = 0.385$]. The results also shows that for lower income levels 46.9% use drugs always, 37.5% use drugs often and 15.6% use drugs sometimes and for higher income levels 54.5% use drugs always, 25% use drugs often and 20.5% use drugs sometimes. The percentage of the sample that use drugs always was 50.0%, those that use drug often was 32.4% and those that use the drug sometimes was 17.6% as shown in Table 11.

Table 11.0: Association between Frequency of drug Use and Income Levels

Characteristics	Frequency of Drug Use			Total	p-value
	Always	Often	Sometimes		
	N (%)	N (%)	N (%)	N (%)	
Income Levels					0.385
High income	30 (46.9)	24 (37.5)	10 (15.6)	64(59.0)	
Low income	24 (54.5)	11 (25.0)	9 (20.5)	44 (41.0)	
Total	54 (50.0)	35 (32.4)	19 (17.6)	108 (100.0)	

$p .05$

This trend supports the outcome of the Chi-square results which indicates that there is no statistical significant association in the frequency of

drug use between higher income earners and lower income earners thus the frequency of drug use for small scale mine labourers who earn high income is statistically the same as those of who earn lower income. Studies on association on frequency of drug use and income levels of its users are not specific in the literature; however extracts from drug use research studies seem to indicate that frequency of drug use is not associated with income levels of its users. For instance Mwenifumbo et al. (2010) noted that household income and employment status are not associated with smoking status, thus the outcome of this study does not support the literature.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This study was designed to find out drug use by small scale mine labourers and the perceived effects of drug use on small scale mine labourers. This chapter covers the summary, conclusions and recommendations drawn from the findings of the study.

Summary

Drug use has become a global phenomenon affecting almost every country in the world though the extent and characteristics vary depending on the country in question. It is estimated that 172 and 250 million persons in the world used a drug in the past year (INCB, 2009). In Ghana, drug use and abuse is one of the problems confronting the youth of this country. In an article 'Dealing with the drug menace: The way forward' it was indicated that in the past years, drug use was thought to be concentrated amongst the youth in urban centres, but in recent times the issue of drug use and abuse has found its ways into all corners of the nation. The article further indicated that in most Ghanaian communities, drug peddlers have developed "ghettos" to go about their nefarious activities of which their target audience has been the youth. Drug use poses a threat to the nation by causing some of its users to become hardened criminals and armed robbers, as well as its associated mental

problems. In the case of addiction, the users become a burden to their families and the society as a whole (Spike, 2009). With all these background information available, there is still less information on the extent and frequency of drug use by the youth of this country. It is in light of this knowledge gap that there was the need to conduct a study on the extent of drug use and its perceived effects amongst the youth involved in SSM in Asutifi North District of Brong-Ahafo Region of Ghana.

The study was framed into five chapters. Chapter one looked at introduction to the drug menace, definitions associated with drug use, importance of the study and six research questions were formulated to guide the study. Chapter two was on literature review to the study and dealt with theoretical and empirical review of the literature on drug use. Chapter three focussed on the methodology used for the study. The study was quantitative research which made use of Researcher Generated Questionnaire (RGQ). Snowball sampling technique was used to select 120 small scale mine labourers In Asutifi North District of Brong-Ahafo Region. Result obtained was analysed quantitatively using SPSS software (version 16.0). The results of the data were presented in chapter four using frequencies, percentages, Chi-Square test for independence. Chapter five provides a summary, conclusion and recommendations of the study.

Main Findings

The study provides evidence that popular drugs of use by small scale mine labourers include: Ataya/coffee, alcohol, cigarettes, marijuana and painkillers but the most frequently used drug by the small scale mine labourers is marijuana. Additionally the study also revealed that majority of small scale

mine labourers who use the drug, use it always and most of them have been using the drugs for at least 1-5 years. The study further revealed that sources of the drugs that the small scale mine labourers use are obtained from the surrounding mine shops and drug peddlers who parade the mining sites and the cost of the drugs that they use are very low. The study also revealed that multiple reasons/factors were attributed to the use of drugs by the small scale mine labourers rather than a single reason/factor. Generally small scale mine labourers have negative perceptions on the effects of drug use on their health, work, family and friends. A test of association between frequency of drug use and socio demographic characteristics (age, marital status and income levels) of small scale mine labourers in Asutifi North District indicated that there is no statistical significant association between drug use and socio-demographic characteristics.

Conclusion

The popular drugs of use by the small scale mine labourers are Ataya/coffee, alcohol, cigarettes, marijuana and painkillers. Marijuana was the most frequently used drug. These drugs are frequently used (always) suggesting regular/ habitual users of the drugs. Reasons for the use of the drugs were varied. The target audience for the drug use are the youth who majority have not had any higher formal education and therefore may not be aware of the detrimental effects of the drugs they use on their health, work, family and friends. Additionally, availability and easy accessibility of the drugs coupled with relatively low cost of the drugs used by small scale mine labourers make it easier for them to obtain the drugs. Lastly, majority of them

have been using the drugs between 1-5 years which suggest that they might be reaching the overdependence stage of drug use.

Recommendations

Drug use and abuse has become a global phenomenon affecting most countries and the fight against drug use and abuse has become the priority of most world leaders of today. The unfortunate part is that it seems to be increasing in our part of the world and there is the urgent need for authorities concerned especially NACOB and Ghana Police Service to attend to the situation before it gets out of hand. Findings of the study have brought to light the extent of drug use of small scale mine labourers and perceptions of the effect of drug use on their health, work, family and friends. It implies that there is the need for the design and implementation of relevant programmes by concerned agencies to ensure that the Ghanaian youth are protected from drugs. The following recommendations based on the findings as outlined may be of relevance in the design of relevant programmes for the reduction and prevention of drugs use and abuse by the youth most especially those in the SSM sector.

1. Drug use health educators in the district should intensify their education on some of the negative perceptions that small scale mine labourers have about the effects of use of certain drugs.
2. Drug use enforcement units in the Brong Ahafo Region should intensify their efforts at reducing the preparation and distribution of various forms of drugs that are commonly used by the youth of the country because the study revealed that most of the drugs are easily available and accessible in the district.

3. Asutifi North District authorities should take a second look at the laws on drugs commonly used by the youth such as alcohol, marijuana and collaborate with the chiefs, elders and the police of the district to develop regulations on the use of those drugs and enforce them.

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APPENDICES

APPENDIX A

QUESTIONNAIRE

PREAMBLE: This questionnaire has been designed to collect data on drug use and its perceived impact on small scale miners in the Asutifi North District of Brong Ahafo Region of Ghana. Your fair and accurate responses are needed to make logical conclusions. I want to assure you that your responses will be used solely for academic purposes and all ethical rights of respondents will be respected, therefore I will plead with you to offer me your maximum cooperation. Thank you.

Respondent code:

Date:

SECTION A

Demographics

1. What is your age?

15-20 [] 21- 25[] 26-30 [] 31-35 [] 36-40 [] Others []

(specify).....

2. Sex: Male [] Female []

3. Educational background: No education [] Primary level []

J.H.S level [] S.H.S level [] Others []

(Specify).....

4. Marital status: Single and never married [] Married []

Divorced [] Widowed [] Separated [] Co-habitation []

5. Income level per week: GHC10-GHC 100 [] GHC101-GHC200 []
 GHC201-GHC300 [] GHC300-GHC400 [] Others []

(Specify).....

SECTION B

Drugs Used by Small Scale Mine Labourers in Asutifi North District.

5. Do you use any of the following drugs? Please tick the appropriate box?

DRUGS	<input type="checkbox"/>	DRUGS	<input type="checkbox"/>
Cocaine/Morphine		Codeine/Herione	
Pain killers		Caffeine/Cocoa/Coffee/Colanuts /Ataya	
Nicotine/Tobacco/Cigarettes/Jot		Alcohol/Beer/Akpeteshie/wine	
Marijuana/Wee/Ganja/Hashish		Valium/Diazepam/Librium/blue blue	
Glue/Gasoline/Lacker		Ecstasy/Spanish fly/Anafrasil/	

6. Which of the drug do you use most frequently?

.....

7. How often do you use the above mentioned drug?

Always [] Often [] Sometimes [] Rarely []

8. How much money do you spend on the drug per day?

.....

9. At what period within the day do you take the drug?

Before work [] After work [] Whiles doing the work [] When
going to sleep [] In between work hours [] Others []

(Specify).....

10. How long have you been using the drug?

.....

11. Where do you usually obtain the drug from?

Health post [] Drug stores [] Drug pushers (ghettos) []

Mine shops [] Friends [] Relatives [] Others []

(Specify)

SECTION C

Reasons for drug use?

12. Which of the following do you think are reasons for your drug use? Tick the correct box.

PERSONAL FACTORS	Yes	No
You take the drug because your parents take it?		
You use the drug as a form of self medication?		
You use the drug for special functions such energy to do work?		
You take the drug as a source of enjoyment?		
You take the drug because you have a low self esteem?		
You take the drug due to re-inforcement behaviour of the drug?		
SOCIAL FACTORS	Yes	No
You take the drug because you want to be accepted by my peer		

group?		
You take the drug because it makes me feel confidence/brave to take risk?		
You take the drug because of problems you had with your education?		
ENVIRONMENTAL FACTORS	Yes	No
You take the drug because it's easily accessible and available?		
You take the drug because of the dangerous nature of my work?		
You take the drug because of lack of proper employment?		
You take the drug because life has become difficult?		

SECTION D

13. What are your perceptions about the effects of the drug you use?

(i) Perceived Effect of Drug Use on Health. Please tick the correct box?

Physical Effects	Yes	No	Physical Effects	Yes	No
Feels uneasy and restless			Increased wakefulness/alertness		
Feels a strong desire for sex			Feelings of super abundant energy		
Experience slurred speech			Have blackouts/blurred vision		
Have poor appetite			Have flashbacks		
Feels pains in the heart			Feels weak and tired		

Feels pains in the chest{lungs}			Pains in digestive tract/Nausea		
---------------------------------	--	--	---------------------------------	--	--

Psychological/Emotional Effects			Cognitive Effects		
Feelings of sadness/loneliness			Experience memory loss		
Bad feelings and guilt			Experience impaired judgement		
Have relief of tension/anxiety			Feels nervous/shakiness inside		
			Hallucinations		

(ii) Perceived Effects of Drug Use on Work/Employment.	Yes	No
Please tick the correct box.		
Do you get intoxicated with the drug when at work?		
Does the drug provide you energy to work for long hours?		
Does the drug provide you energy to work for long hours?		
Have you experience any accident/injury at work?		
Can the accident /injury be attributed to the drug intake?		
Do you experience any change in the way you work when you take the drug?		
Have you ever been involved in violence at work after taking the drug?		

Do you experience lateness or absenteeism due to your drug use the previous day?		
Are you a self employed person?		
Have your employer complained about your drug use before?		

(iii) Perceived Effect of Drug Use on Family and Friends.	Yes	No
Please tick the correct box.		
Have you ever been engaged in violence at home after taking the drug?		
Do your friends complain about your drug use?		
Are your family members aware of your drug use?		
Have there been changes in the way your family and friends relate to you?		
Do any of your family members use the drug that you use?		
Is the drug use putting some pressure on your finances or family finances?		