SCHOOL OF PUBLIC HEALTH

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DEPARTMENT OF SOCIAL AND BEHAVIORAL SCIENCE

PREVALENCE OF SUBSTANCE USE AMONG JUNIOR HIGH SCHOOL PUPILS OF THE DANGME WEST DISTRICT

THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PUBLIC HEALTH DEGREE

BY

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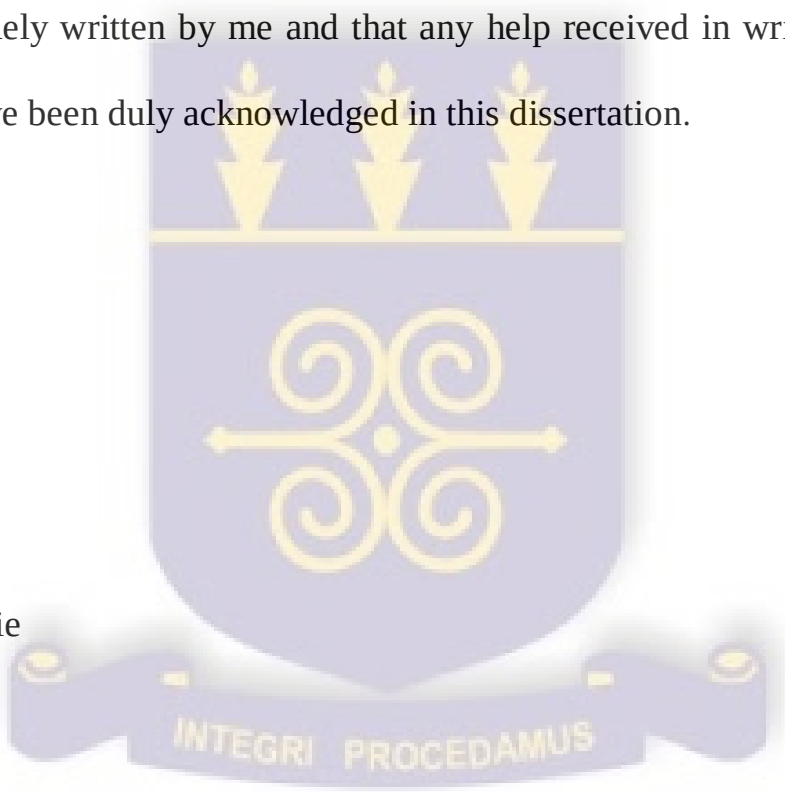
DECLARATION

I declare that this dissertation has not already been submitted for any degree and is not being submitted as part of my candidature for any other degree. This work is the result of an independent investigation under the supervision of Dr. Pasmor Kuranchie. I also declare that this dissertation has been solely written by me and that any help received in writing this dissertation and all sources used, have been duly acknowledged in this dissertation.



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(Principal academic supervisor)

DEDICATION

I dedicate this piece of work to Emmanuel, Gloria and Nkunim for their tireless support, patience and encouragement throughout the entire course, and to the JHS pupils of the Dangme West District.

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This dissertation has been written with the help of other people. First and foremost I thank my supervisor, Dr. Pasmor Kuranchie (Academic supervisor) and Dr. Philip Adongo (Head of department-Social and Behavioral Sciences), for their tireless efforts, expertise skills and time spent on this work in the form of supervising, suggesting, advising and reading through the script. I also appreciate the support and contribution of Mr. Roland Ashigbe, my reseach assistant, Miss Lamptey the Head of Public Relations, Dangme West Education directorate, the head teachers and teachers of the JHSs for their patience, cooperation and absolute support during the study. I would also like to acknowledge all the pupils who all participated in the study for their excellent cooperation and good behavior. Furthermore I would like to acknowledge the five key informants, the Chief of Natriku, Nene Tetteh Amoako IV, Reverend Odjidja of the Assemblies of God church in Akuse, the Inspector in charge of the Asutuare Police Station, E. K. Agbenu, Sampson Nyaje Tetteh Ekpa, Assembleman of Osudoku, Miss Esther Deglo, a nursing officer of the Akuse government Hospital.

ABSTRACT

The aim of this study is to investigate the prevalence of substance use, the age of first substance use and factors the influence the use among Junior High school pupils in the Dangme West District. Stratified random sampling of 366 JHS pupils within the eight education circuit areas in the district completed structured questionnaires. Four focus group discussions were carried out with two groups of girls and two groups of boys and five key informants interviewed on substance use. A structured questionnaire was completed by the pupils, and collected in the same sessions. Data was collected using the structured questionnaire and was analyzed using SPSS. Tests of significance were conducted with chi-square and 2-sample t-test for age. The mean age for the JHS pupils was15.3 years. Substance use prevalence was 17% with a mean age of 15.9 years (Std. Dev.=1.7,range=13-25 years). Alcohol was the only substance used by the JHS pupils, with no significant difference in gender or class. Age was significantly related to substance use (p=0.003). Father's religion, mother's religion, source of money and area of residence also differed significantly between those who used substances and those who did not. Age of first or initial substance use occurred predominantly at 11years (37.9%). Perception of places substances are taken, source of initiation of use and the effects on the community differed significantly between the two groups. From the focus group discussions and key informant interviews socio-economic activities, poverty and peer pressure also influence substance use among JHS pupils and the youth in the Dangme West District in general.

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LIST OF ABBREVIATIONS

EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
TRA	Theory of Reasoned Action
ESU	Experimental Substance Use
UNDCP	United Nations International Drug Control Programme.
UNODC	United Nations Office on Drugs And Crime
UNODCCP	United Nations Office for Drug Control and Crime Prevention
WHO	World Health Organization

CHAPTER ONE

1.0INTRODUCTION

Background

Tobacco, alcohol and illicit drug use are among the most important global public health problems, with their genesis in adolescence (Bauman and Phongsavan, 1999; Lerner and Garlambas, 1998)). Legal and illegal drugs represent an important risk factor for the development of somatic, psychological, interpersonal, and socio-cultural problems (Steinhausen and Metzke, 1998). Worldwide trends during the last twenty years show an immense upsurge in illicit drug use among youths (US National Drug Report,2003; European Monitoring Centre for Drugs and Drug Addiction, 2001; Gabhainn and Francois, 2000) with age of initial use occurring much earlier than previously (Fergusson and Horwood, 2000).

A substance is a chemical that alters a person's mood or behavior when it is smoked, injected, drunk, inhaled, or swallowed in pill form (Halgin and Whitbourne, 2000). A substance may also be referred to as a drug of abuse, a medication or a toxin (Diagnostic and Statistical Manual of Mental Disorders forth edition, DSM-IV, 2000). The Diagnostic and Statistical Manual of Mental Disorders forth edition (DSM-IV), groups substances into 11 classes: alcohol; amphetamines; caffeine; cannabis; cocaine; hallucinogens; inhalants; nicotine; opioids; phencyclidine; and sedatives, hypnotics or anxiolytics. This study focuses on substances of abuse, and uses the term

'substance' to refer to tobacco, alcohol, marijuana, cocaine, amphetamines, hallucinogens, and inhalants. Except for tobacco and alcohol, these substances are generally regarded as illicit drugs.

Public health approaches to reducing the adverse health and social harms associated with illicit substance use among the youth are of particular importance due to the potential for the spread of HIV, hepatitis and other infectious diseases amongst intravenous illicit drug users (Bauman and Phongsa6an, 1999)

1.1Statement of the Problem

Few social issues impact so comprehensively on society as substance misuse. Alarmingly, children and young people are increasingly misusing alcohol and illegal drugs **(**Frischer et al. 1994; UNDCP 2000; UNODCCP, 2000), and therefore substance abuse has become a major problem all over the world and especially among the youth. Some police forces estimate that up to 70 per cent of all crime is drug or alcohol related (Ministry of Interior Workshop Report on Public Safety -The Role of Security Agencies in Ghana, 2006).

The consequences of substance abuse among the youth in any country are not limited to the boarders of that country alone. Globalization has played a major role in the spread of substance use and misuse and today the consequences which societies with drug and substance abuse problems have to deal with, are felt everywhere.

In Africa rapid economic and social changes that have facilitated the widespread use of substances of abuse, with alcohol and other illicit drugs being easily accessible to the youth (Odejide, 2006) A review of the literature reveals that there is a pressing need to investigate current trends and patterns of drug use in the countries of Sub Saharan Africa (Ghana Narcotics Board). With the huge HIV/AIDS problem around its neck, the consequences of, famine, refugees, and political unrest, nations south of the Sahara cannot afford to address the consequences of widespread drug use. It is critical therefore, that the drug problem is addressed before it reaches crisis proportions (Bauman and Phongsavan, 1999). To do so, information describing the magnitude of the problem as well as a firm understanding of the relationships between substance use and the social consequences which go with it, is needed (Adelekan,1996).

The growing seriousness of the drug problem in Ghana and elsewhere in Africa is a by-product of the international drug trade as well as of globalization. Today, all countries especially those that serve as transit zones for illicit drugs-are liable to the problems of local drug use (Affinnih, 1999). Figure 1 indicates that Ghana is one of the countries with high consumption of cannabis among the population (World Drug Report, 2006).

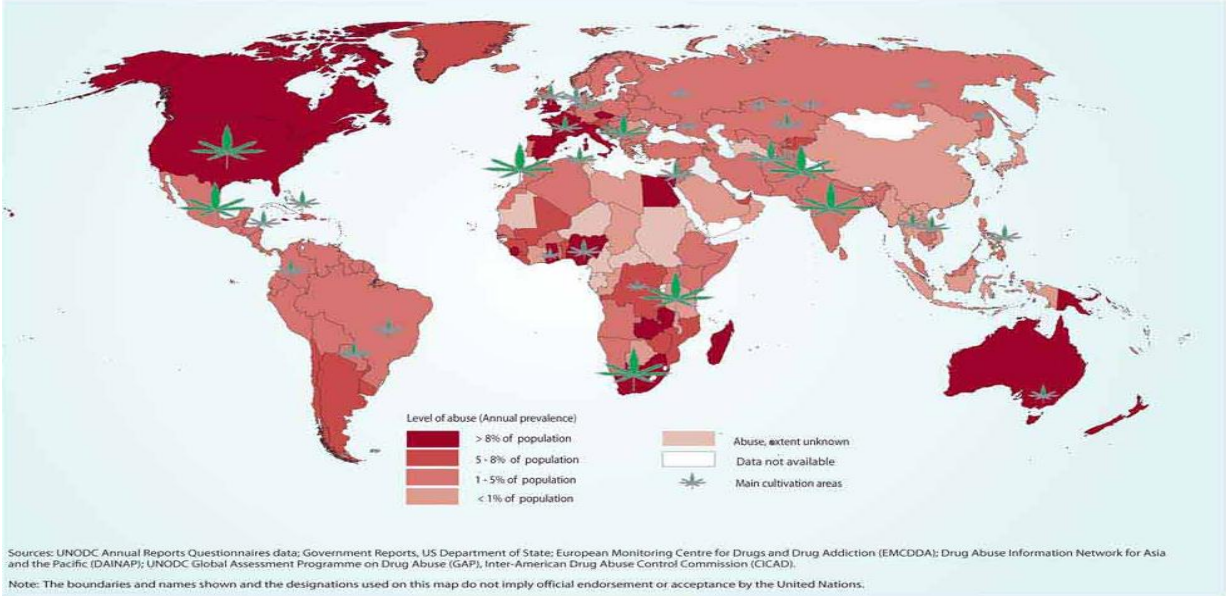
Among middle school students, use of marijuana and other drugs before the age of 12 was found to be associated with engaging in greater numbers of health risk behaviors than among students whose age at onset was 12 years or older or the never users (DuRant, Smith, Kreiter, &

Krowchuk, 1999**).** Thus early marijuana use is found to be associated with later problems that limit the acquisition of skills necessary for employment, an increased risk of contracting the human immunodeficiency virus (HIV), and using illicit drugs (Brook et al., 1999b).

The substance abuse problem in Ghana is no different from other African countries, though there variations in the magnitude of the problem (WHO, 2003). Reports from the Accra psychiatry hospital indicate that like in other countries most substance users start as young adolescents and commonly develop tolerance and dependence to multiple substances of abuse (Accra Psychiatry Hospital report, 2008)

Figure 1 Use of Cannabis in 2006-2007 and Ranking of Cannabis in 2006

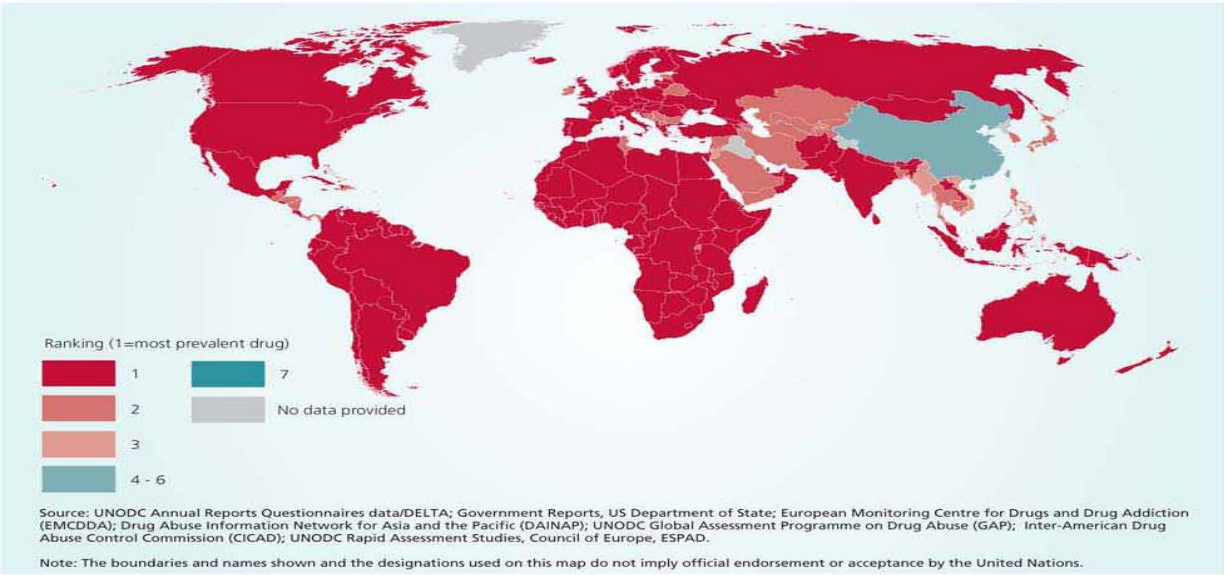
Map 17: Use of cannabis 2006-2007



Sources: UNODC Annual Reports Questionnaires data; Government Reports, US Department of State; European Monitoring Centre for Drugs and Drug Addiction (EMCDDA); Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC Global Assessment Programme on Drug Abuse (GAP), Inter-American Drug Abuse Control Commission (CICAD).

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Map 18: Ranking of cannabis in order of prevalence in 2006



Source: UNODC Annual Reports Questionnaires data/DELTA; Government Reports, US Department of State; European Monitoring Centre for Drugs and Drug Addiction (EMCDDA); Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC Global Assessment Programme on Drug Abuse (GAP); Inter-American Drug Abuse Control Commission (CICAD); UNODC Rapid Assessment Studies, Council of Europe, ESPAD.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

In 2006, WHO reported that among the top ten causes of admission at psychiatry hospitals in Ghana in 2002, substance abuse ranked second next to schizophrenia at 17.43% and ranked 4th among outpatient cases at 16.3% (WHO, 2006).

In 2007 the Mental health unit of the Pantang Mental Hospital, one of the three psychiatry hospitals in Accra, reported an increase in alcohol related admissions by 21.1 % over the previous year's figures, while illicit substance related admissions was in the same year was 52.5% over the 2005 figures

Anecdotal reports from psychiatry hospitals in Ghana indicate that substances of abuse include cannabis, crack, cocaine, heroin, nicotine, pethidine, codeine, morphine, khat and inhalants, which include glue, petrol and thinner. The increasing rate of substance is attributed to an increase in availability and relative ease of access to alcohol, cannabis and other illicit drugs. This is not surprising since in recent times Ghana has been a recognized as a major transit hub for heroin and (to a lesser extent) cocaine, leading to significant domestic availability and use (CIA World Fact book,2004**).** Today, Ghana is recognized as a producer of cannabis for international drug trade with high consumption among the population (World Drug Report, 2000) and an annual prevalence of abuse (as percentage of the population aged 15-64) 21.5% in 1998 (World Drug Report, 2000).

The above facts indicate the that substance use is not only a problem in Ghana but is worldwide and fueled by globalization resulting in changing trends in use and availability of substances

Of major concern in Ghana today is the high incidence of violent crime such as armed robbery. Reports from the Ministry of Interior indicates that such social vices are associated with youth substance use and abuse (Ministry of Interior Workshop Report on Public Safety -The Role of Security Agencies, 2006).

1.2 Conceptual framework

Researchers, policy makers, and practitioners are especially interested in the interplay between biological and psychosocial risk factors in understanding cause and protective factors as risk mediators. Among the environmental variables identified by researchers as common risks, are community/school/family factors as norms favorable toward drug use, availability of drugs, extreme economic deprivation, high levels of mobility, low neighborhood attachment and community organization, friends who engage in the problem behavior, academic failure, family histories of the problem behavior, and family conflict. (Hawkins, Catalano and Miller, 1992; Petraitis et al;1995).

Adolescence is a period of rapid and transformative physical, psychological, socio-cultural, and cognitive development. The physical changes of puberty — including growth and maturation of multiple organ systems such as the reproductive organs and brain — lay a biological foundation for the other developmental changes. Cognitive abilities develop early in adolescence during the

maturation of the brain. When these new cognitive abilities combine with life experiences, it results in development of social judgment, including judgment about risk and safety. Adolescence is also marked by critical transformation in the relationship of a young person to the world, as the social circles of peers and the adult worlds of work, pleasure, and social responsibility become more central and the family circle becomes somewhat less prominent — at least temporarily. Adolescents must learn to deal with an expanding social universe and must develop the social skills to find friendship, romance, employment, and social standing within multiple social spheres. Finally, a critical task of adolescence is the establishment of a stable sense of identity and the development of autonomy or agency. This development of identity often occurs only after a period of exploration, of trial and error in social roles and social behaviors. Although most adolescents navigate the often turbulent course from childhood to adulthood to become healthy adults and productive citizens, many fall prey to social and behavior morbidities and mortality, and many fail to achieve their full potential as workers, parents, and individuals. Many suffer substantial short - term impairment and disability, and for many this impairment extends into adulthood. Many of these failures of adolescent development are the result of preventable health risk behaviors such as substance use. Between the ages of twelve and twenty – five is the initiation of many health risk behaviors, including alcohol and drug use, smoking, sexual behaviors, delinquency, and behaviors leading to and long term consequences. For example, alcohol and substance use can lead to adult addiction, health impairment, intentional and

unintentional injuries — all of which can adversely influence health in the short. Sexual behaviors often result in unplanned pregnancy and sexually transmitted diseases, including HIV infection.

From an evolutionary viewpoint, risk taking may have had important survival value, with inquisitive young humans exploring new lands and willing to develop new ways of surviving in hostile environments. As such, developmental psychology often discusses risk taking as normal adolescent exploration that is an important part of the learning process of a young person. Social and cultural factors including family instability, poverty, and racism also seem to drive adolescent risk - taking behaviors. While these responses may seem maladaptive from a societal viewpoint, they can also be seen as adaptive responses to unsupportive circumstances. Risk taking may also exist simply as part of the adolescent's new identification with peers and the desire to attain adult status. Adolescents with greater social capital or with greater identification with society's benefits and values may be more likely to eschew risk behaviors. Finally, these processes of risk taking can be understood at the level of brain chemistry, at the level of individual autonomic responses, and even as social processes that support risk taking. (Crosby, Santelli and Diclemente, Adolescents at risk: A generation in jeopardy). Today psychologists and other social science researchers base the explanation of some substance use experimentation and abuse on Cognitive and Behavioral Theories **(**Petraitis, Flay, Brian, Miller and Todd,1995).

1.3 Theory of Reasoned Action (TRA)

Sighting Ajzen & Fishbein, 1980, Petraitis, et al.,1995 indicate that the Theory of Reasoned Action (TRA) is the most important cognitive –affective theory of experimental substance use.

According to Ajzen and Fishbein (1980), substance use is determined exclusively by an adolescent's decisions or reasoned intentions to engage in substance-specific behaviors. In turn, these decisions are determined exclusively by two cognitive determinants. First, TRA claims that intentions are affected by adolescents' attitudes regarding their own experimental substance use (ESU). This presumes that youths hold positive attitudes toward ESU if the expected benefits of substances are valued more than the expected costs. Secondly, TRA claims that decisions are affected by an adolescent's beliefs regarding the social norms surrounding ESU. According to the theory, social normative beliefs are based on an adolescent's perception that others want him or her to use substances and on the adolescent's affective motivation to comply with (or desire to please) the substance-specific wishes of those people. Presumably, therefore youths will feel strong pressure to use substances if they believe, rightly or wrongly, that important friends and family members endorse ESU. Citing Chassin, Presson, Sherman, Corty, & Olshavsky, 1984, Petraitis, et al., futher indicate that adolescents might also feel strong pressure to use substances if they overestimate the prevalence of ESU use among peers and adults in general. (Chassin, Presson, Sherman. Corty, & Olshavsky, 1984).

Studies have shown that nationwide use of a specific substance (e.g., crack) among high school students usually declines following increases in the perceived risk and social disapproval

associated with that substance (Bachman, Johnston, & O'Malley, 1990; Bachman, Johnston, O'Malley, & Humphrey, 1988).

1.4 Justification of study

The similarities in pattern of use of substance among adolescents all over the world are far greater than their differences; worldwide trends since 1990 have suggested increases in many dimensions of adolescent substance use.

Estimates of the prevalence and age of initiation as well as understanding the factors that influence initiation of substance use will provide an important measure of the nation's drug use problem and suggest emerging patterns of use including periods of heightened risk, for focus in prevention programs, particularly among the very young

1.5 OBJECTIVES

1.5.1General Objective

- To investigate the prevalence of substance use and factors that influence initiation of substance use among Junior high school (JHS) pupils in the Damgbe West District of the Greater Accra Region.

1.5.2Specific Objectives

- To determine the prevalence of substance use among JHS pupils.
- To determine the age of onset of substance use among JHS pupils.
- To examine the factors that influence substance use among JHS pupils.
- To determine the types of substance commonly used.
- To gather information from JHS pupils on what they perceive to be the effects of substance use on the individual, and society as a whole.

1.6Research Questions

1. What is the prevalence of substance use among JHS pupils in the Dangme West District?
2. What is the age of onset of substance use among JHS pupils in the Dangme West District?
3. What are the factors that influence substance use among JHS pupils in the Dangme West District?
4. What are the types of substance commonly used by JHS pupils in the Dangme West District?

CHAPTER TWO

2.0 LITERATURE REVIEW

A wide variety of terms are used to define adolescent substance use. These terms include: substance abuse, substance misuse, substance dependence, dependent use, harmful use, hazardous use, experimental use, problem use, addiction, alcoholism, chemical abuse, and chemical dependence. The most widely used approach in defining and conceptualizing problematic substance use is the DSM-IV, 2000. The DSM-IV classifies individuals with substance use problems into two distinct categories–substance abuse and substance dependence. Abuse implies maladaptive use leading to failure to fulfill work, school or social responsibilities. Dependence is a more severe form of abuse, often involving increasing use of a substance, high tolerance, and a strong desire to use a substance despite significant clinical and social impairments (Bauman and Phongsavan, 1999). Although the two categories in the DSM-IV contain extensive diagnostic criteria of substance use problems, the definitions exclude individuals who are engaged in experimental or recreational use which are the most common patterns of use among adolescents. The focus of this study is on substance use at the community level, and not on pathological substance use. This study uses the term 'substance use' to denote use ranging from experimental to persistent or dependent use, while the term 'substance misuse or abuse' is employed specifically to refer to any level of use that is harmful to the user or others. 'Misuse' encompasses a wider spectrum of problematic or harmful use. These terms are consistent with the conceptualization of substance use and misuse, as defined by the DSM-IV and the United Kingdom Health Advisory Service Report (1996). The adoption of such terms allows for the inclusion of young people with low or episodic substance use.

In every society the definitions of alcohol use and misuse, depends on the society's acceptance or tolerance of such use. In this study therefore, alcohol misuse is defined as consumption of any amount of alcohol by JHS children who are classified as minors, (less than 18 years) and are not allowed to consume alcohol under the laws of Ghana.

Today there are other dramatic trends in the use of substances of abuse and although prevalence of use of some drugs may be down, the intensity of use may be going up (McCurdy, 1986). Today's drugs are more potent and addictive than ever (Hanson et al, 2006). Crack, a new, highly addictive form of cocaine which is smoked (a particularly dangerous and psychologically addictive method of use), and the so-called new "designer drugs" (analogs of certain illegal drugs) have been known to cause permanent brain damage. Increases have also been seen in the use of inhalants, phencyclidine (PCP) and cocaine, whose use on a daily basis have become more prevalent than ever (Johnston et al., 1985; McCurdy et al., 1986; **http://www.ericdigests.org/pre-9211/drug.htm** 21/1/10)

During the adolescent period there is a transition of cognitive, biological, physiological and psychological function. This period usually occurs between 10 and 19 years (Crockett and Petersen, 1993) when most children find themselves in school. In Ghana JHS children are usually in the early to late adolescent period with ages ranging from about 12-18 years. The psychological and social transitions of adolescence lead to the need for independence, identity formation and acceptance by peers (Bauman and Phongsavan, 1999). All of these contribute to the risk taking behaviors of adolescence, of which substance use is the most damaging (Fergusson and Horwood, 1995).

The context of substance use includes the social, school and domestic environments for each adolescent, as well as the relevant regulatory and legislative environments present in the community. Detailed consideration of each of these environments is needed to understand and explain the prevalence and trends in substance use **(**Degenhardt et al, 2009**;** www.brown.edu/Departments/PLNDP/Resources/adolesent.pdf).

Social pressures, from peers, family, and societal role models are at the top of the list of reasons why adolescents initiate substance use and their continued use may be socially and environmentally driven. Predisposition toward rebelliousness, nonconformity, and independence also feature prominently (Madu and Matla, 2003). Unfortunately, there is a high correlation between parental substance use and substance use patterns among their children. Today more teens in treatment are reporting that their first use of alcohol or other drugs occurred with parental supervision. Adolescents are likely to emulate their parents' drinking or drug use patterns. This experience translates to a belief that the use and abuse of substances are permissible (Morrison, 1990). In Ghana for example, a number of cultural practices like funerals, 'outdooring' of babies and the celebration of passage rites are common in our communities. These occasions are accompanied by merrymaking and drinking of alcoholic beverages. During the celebrations adolescents indulge in drinking with adults and parents not giving caution but rather endorsing the behaviors. Other situations in this part of the world which encourage adults to give children and adolescents alcohol out of ignorance, is in the recommended addition of alcohol as an adjuvant to certain local herbal medicines for the treatment of various ailments. Children who have to use such medicines for a long time for the treatment of asthma for example, are likely to continue the

use and abuse of alcohol in future. Anecdotal reports from the Accra Psychiatric Hospital attest to this phenomenon.

In today's world, children and young people are increasingly misusing alcohol and illegal drugs at an alarming rate (World Drug Report 2000). The average age of first use is between 11 and 12 years (Kandel and Logan, 1984). Peer influences form the major factor in initial substance use. Among school children, this usually starts in school or within the communities where they live (National Institute on Drug Abuse, 2003). Future abusers are almost always introduced to both legal and illegal substances in adolescence by friends who hold favorable attitudes toward drugs, and, often, have corresponding rebellious attitudes toward prevailing cultural values.

Substance use by adolescents, range from experimentation to dependence. Unfortunately, even occasional use can put them at risk of significant harm, such as overdose and violent behaviors. All over the world societies face, on a daily basis, the reality of the harm caused by substance use among adolescents. This includes disruption of family relationships, deterioration of school performance, absenteeism from school, school dropout, poor health, committing crime to support 'habits' and increased risk of being a victim of violent crime and sexual exploitation (Gollota et al, 1995).

Teenagers looking for peer acceptance or wanting to appear mature or "cool" might decide to use substances **(**Galambos and Silbereisen,1988). Thus associating and socializing with peers who are into substance use provides an opportunity for access to these substances that can encourage experimentation and continued use.

In today's fast growing capitalist world where advertising is big time business, advertising, together with the media and role models have succeeded in portraying drinking and smoking as behavior that is socially desirable and the youth are quick to learn from them. Unfortunately many teenagers spend long hours watching movies and television in general as well as reading various glossy magazines littered with role models drinking and smoking.

For both pharmacological and psychological reasons, an adolescent who tries a particular type of substance is more likely to use that substance again if he or she enjoys the effects. If unpleasant experiences are however, associated with use of the substance, it is unlikely that one would try it again. However, continued substance use by adolescents is commonly associated with a predisposition toward rebelliousness, nonconformity, and independence (Towers, 1987 as cited by Madu and Matla,2003). Pleasant effects of substances used by the youth which encourage continuous use include altered perceptions, feeling, states or behavior. Illicit drug use, cigarette smoking and alcohol may reduce tension and frustration, even relieve boredom and fatigue, and in some cases help adolescents to escape the harsh realities of their world. They may provide pleasure by giving inner peace, joy, relaxation, kaleidoscopic perceptions, surges of exhilaration, or prolonged heightened sensation. These emotional highs and counterfeit sense of well-being only temporarily supplant such tensions and feelings of frustration (Hepworth, Farley & Griffiths, 1998). Unfortunately, regardless of age or sex, or whatever the reason, the use of substances for personal gratification and temporary adaptation carries a very high price – it may result in drug dependence, personal and social disorganization, and a predisposition to many dangers (Lewis, 1996).

With repeated use of a substance the body becomes accustomed to its effect, and the drug amount will need to be increased in order to obtain the same effect. This phenomenon is known as *tolerance*, and once tolerance to a drug develops, the level of drug use may escalate into larger and larger doses. Continued use of drugs may also occur because of unpleasant symptoms—withdrawal—that may appear as the drug begins to wear off. This is common with the use of, nicotine, caffeine, cocaine and heroin. To avoid these withdrawal symptoms, a user feels compelled to establish a regular pattern of use, usually resulting in physical dependence (http://www.enotes.com./ drugs-alcohol-encyclopedia/adolescents-drug-use21/2/10)

Adolescents who use one drug are likely to use another. They usually begin with legal drugs - alcohol or tobacco progress to marijuana, and may eventually go on to other drugs or combinations of drugs. About half of adolescents who try marijuana will eventually progress to more potent drugs. Conversely, the use of drugs such as cocaine or heroin is unusual in young people who have not previously used alcohol, tobacco, or marijuana (Kandel and Logan, 1984). Cocaine use tends to follow marijuana use, with crack-cocaine use occurring after cocaine use (Kandel & Yamaguchi, 1993). For example, it is likely that someone who smokes crack-cocaine has already tried tobacco, alcohol, marijuana, and cocaine. (http://www.enotes.com/drugs-alcohol-encyclopedia/adolescents-drug-use). Alcohol and tobacco, particularly, and sometimes marijuana are thus known as "gateway" drugs; their use greatly increases the probability of later use of other substances. This typical sequence of drug use is found in different populations and in different ethnic and cultural groups (Morrison, 1990).

Majority of substance users begin taking drugs during adolescence and often persist into adulthood resulting in serious negative consequences including abuse and dependence. Substance use also impacts on health, leads to risky sexual behavior and intentional and unintentional injuries (Patton et al, 2004).

1.1Tobacco use among adolescents

The majority of adults who smoke cigarettes begin smoking during adolescence. Children as young as age 10 years, experiment with cigarettes. In the United States, more than 2000 people begin smoking every day. Of these new smokers, 31% are under age 16 and more than 50% are under age 18 (Sells and Blum, 1996).

Tobacco use almost always starts in adolescence, with typical initial experimentation between 11and 15 years of age. This leads to regular use (and addiction) within 2–3 years while still in school. The level of consumption and the duration in which young people continue as regular smokers depend on the period when smoking experimentation and uptake occur (Bauman and Phongsa6an, 1999).

Tobacco is also of concern as it is thought, along with alcohol misuse, to lead to other drug use; this 'gateway' effect has implications for other drug prevention programs (Lindsay and Rainey, 1997).

Factors that increase the likelihood of an adolescent smoking are (1) having parents who smoke (the single most predictive factor) or (2) peers and role models (such as celebrities) who smoke. Among adolescents the risk factors often associated with smoking include poor school performance, high-risk behavior (such as use of alcohol or other drugs), poor problem-solving abilities, and low self-esteem (Bauman and Phongsavan, 1999).

1.1.1 Alcohol consumption among adolescents

Alcohol is the primary substance of abuse among students, regardless of age or level of substance involvement (Harrison and Luxenberg, 1995). In recent years alcohol consumption among

adolescents worldwide has increased significantly, with the age at which drinking is starts, declining (Garlard and Zigler, 1993). This, it appears is due partly to the effects of globalization and the markedly improved marketing strategies by producers of alcoholic beverages, in their quest to make maximum profit. The World Health Organization has cautioned that the globalization of alcohol brands and marketing designed to embed alcohol products and their consumption into the lifestyles of young people, makes it imperative on public health practitioners to look at the issues associated with the trend (WHO, 2000).

Alcohol is particularly attractive to the youth as it is seen as a sign of maturity or adulthood and nearly all students worldwide report some experience with alcohol before the completion of high school, with over a third reporting hazardous use at least once (Sells and Blum, 1996).

Generally the health, behavioral, psychological and social consequences of alcohol consumption among the youth cannot be overstressed (Pretorius, Ferreira, and Edwards,1999). Research has shown that the earlier the age at which people begin drinking, the more likely they are to become alcohol dependent later in life (Grant & Dawson 1997), and people who begin drinking in their teenage years are also more likely to experience alcohol-related unintentional injuries (such as motor vehicle injuries, falls, burns, drowning) than those who begin drinking at a later age (Hingson, Heeren, & Winter, 2000; 2006).

Drinking to the point of intoxication is of concern because of its associations with road accidents, suicides, homicides, and violence and more so with binge drinking which is more common among the young people (King et al., 1996b). Hazardous bouts of alcohol use have also been related to increased risks of contracting sexually transmitted infections (STIs) including human immunodeficiency virus (HIV) infection, teenage pregnancy, and poor school performance (Bauman and Phongsavan, 1999).

1.1.2 Illicit drug use

Increases in the use of most illicit drugs in adolescence has been a worldwide phenomenon since 1990 in many countries, (Centers for Disease Control and Prevention, 1991) with the most prevalent illicit drug used worldwide being marijuana (Reuter, 2006). According to the United Nations Office on Drugs and Crime (2008), cannabis use is among the most common primary reasons for entering drug-related treatment worldwide. Furthermore, cannabis use often precedes the use of other drugs, which suggests that cannabis may cause further problems as a gateway drug in adolescent involvement drug-use (Fergusson and Horwood, 2000; Hall and Lynskey, 2005). Other illicit drugs used by adolescents are cocaine, heroin, and crack-cocaine.

Others are legal substances used in hazardous ways such as the inhalation of solvents, and the inappropriate use of prescribed medications such as sedatives, minor tranquillizers, and anabolic

steroids. A daily news report in South Africa in 2009 commented on the use of the Antiretroviral drug Efavirenz, used as an illicit drug by smoking among adolescents in instead of swallowing. (http://www.nydailynews.com/lifestyle/health/2009/04/07/2009-04-07_abusing_the_antihivaids_drug_efavirenz_c.html#ixzz0jqcljzre)

In January 2000, technical experts representing international bodies met in Lisbon, Vienna, to deliberate on the principles, structures and indicators necessary for effective drug information systems. The consensus document expressing the view by all participants on the basic indicators for monitoring substance use and abuse was, 'consumption estimates of illicit drugs among the youth (prevalence and incidence)' (Lisbon Consensus, 2000). This was against the backdrop of an increasing recognition of the need for sound evidence based research to inform policy making and resource allocation decision in the effective response to substance use problems. Thus, there is a public health imperative in all countries to assess the population rates of tobacco, alcohol and illicit drug use among adolescents.

It is however not a simple issue to estimate the prevalence of this behavior and its adverse health consequences in individual societies because substance use is illegal and therefore often hidden (Thorley et al.1977). Nonetheless, it is important to make efforts to estimate the contribution illicit substance use makes to the global burden of disease because of its associated substantial adverse

effect on the health and well-being of those who engage in it, and producing substantial loss of life and disability (Hulse et al. 1999).

In 1997, data collected by the National Household Survey on Drug Abuse found that 11.4% of 12-to 17-year-olds surveyed reported current drug use (Substance Abuse and Mental Health Services Administration [SAMHSA], 1998). However, a minority of drug-using adolescents go on to develop an abuse or dependence syndrome. Substance initiation and use are greatly influenced by social and environmental factors (Glantz & Pickens, 1992; Newcomb, 1995). Even when genetic risk factors are taken into account, environmental variables may account for about half of the risk for use of substances such as marijuana and cocaine (Kendler & Prescott, 1998a, 1998b). The risk for developing an Substance Use Disorder, on the other hand, appears to be far more influenced by individual biological and psychological factors (Glantz, 1992). These distinctions are helpful to keep in mind regarding the literature on substance abuse risk.

1.2 Global Burden

Psychoactive substance use poses a significant threat to the health, social and economic fabric of families, communities and nations. The extent of worldwide psychoactive substance use is estimated at 2 billion alcohol users, 1.3 billion smokers and 185 million drug users (WHO Regions Disease Burden, 2002).

The global burden of death and disability attributable to illicit drugs was first estimated by Donoghoe (1996), as part of the Global Burden of Disease (GBD) project (Murray and Lopez, 1996). Donoghoe estimated that illicit drug use was responsible for 100 000 deaths globally in 1990, the majority of which (62%) occurred in developing country.

In an initial estimate of factors responsible for the global burden of disease, tobacco, alcohol and illicit drugs contributed together 12.4% of all deaths worldwide in the year 2000. Looking at the percentage of total years of life lost due to these substances, it has been estimated that they account for 8.9%.

The global burden of these three psychoactive substance categories varies across the WHO Regions. The disease burden in Disability Adjusted Life Years (DALYs) is significantly higher in Europe and the Western Pacific than in Africa and the Eastern Mediterranean. Also the share of the burden for the different substances varies, tobacco is the largest burden in Europe and South-East Asia while alcohol poses the largest burden in Africa, the Americas, and Western Pacific (WHO Regions Disease Burden, 2002).

The sex ratio for attributable deaths for psychoactive substance use varies from 80% male for tobacco and illicit drug use and 90% for alcohol. With regard to Disability Adjusted Life Years (DALYs) it is between 77 and 85% for all substances. The largest proportion of DALYs is on males in the developed countries, where psychoactive substance use accounts for 33.4% of all DALYs.

One of the differences between these three categories of psychoactive substances is the fact that they inflict their disease burden on different age groups. Illicit drug use inflicts its mortality burden earliest in life, alcohol also mainly (65%) before the age of 60, while 70% of the tobacco deaths occur after the age of 60 (World Health Report 2002).

WHO seeks to promote the concept of Health for All through its strategy of reducing the incidence and prevalence of psychoactive substance use and to provide the best available evidence on management of substance related problems. The achievement of this goal is designed to lead to reductions in the demand for psychoactive substances and to reduce the health and social problems associated with such use.

1.2.1Ghana

A national survey on "Prevalence and Social Consequences of Drug Use Among Second Cycle and Out Of School Youth In Ghana", was carried out by the Ministry of Health, The Ghana Health Service and The World Health Organization in 2003. The objective of the study was to provide baseline information on the prevalence of substance use among the youth in Ghana as well as its social consequences. A structured questionnaire was use in the study which involved 2500 in-school and out of school youth aged 15-19 years. The results revealed that the substances commonly used by the youth were alcohol, cigarette, cannabis, cocaine, tranquilizers and heroin. The results further showed that 8.7% of the participants used tobacco, with the age at first use

ranging from 6-21 years - majority first using tobacco at 18 years. Alcohol use was 25.3% with the role played by friends in initiating alcohol use being 31.4%, social pressure 29.4% and parental example, 9.8%. 1.7% respondents had been exposed to cannabis. Of the 4 respondents who had used heroin 2 started at age 7 years. (WHO Substance Abuse Research Report, 2000)

In a school-based study among selected Junior secondary schools in Ghana, Wellington et al (2000), reported that of 1,917 respondents, 14% had ever smoked cigarette, 19% currently use a form of tobacco. A similar study was carried out by the same author in 2006 on prevalence of cigarette and other tobacco products use using a larger sample. A total of 9,990 students participated. Results showed a reduction in the prevalence of tobacco use, with 4% of the students currently smoking cigarettes (Male = 4.5%, Female = 3.0%), 12.5% currently use tobacco products other than cigarettes, 11.5% of students had ever smoked cigarettes (Male = 12.2%, Female = 9.7%). 14.4% currently use any tobacco product (Male = 14.6%, Female = 13.0%), 12.5% currently use tobacco products other than cigarettes (Male = 12.4%, Female =11.5%). http://idl-bnc.idrc.ca/dspace/bitstream/10625/42686/1/129950.pdf.

A study to assess the prevalence of, and the association between alcohol, cigarette, and marijuana use Ghana, conducted by Adu-Mireku (2003), among Senior Secondary School students in Accra reported an overall lifetime alcohol use of students was 25.1%; lifetime cigarette use 7.5%; and lifetime marijuana use 2.6%. A sample of 894 students (56.9% girls, 43.1% boys; mean age =

17.4 years) were assessed using a modified version of the Youth Risk Behavior Survey questionnaire. Among lifetime users, current alcohol use was 46.2%; current cigarette use was 44.6%; and current marijuana use was 58.3%. Boys were significantly more likely than girls to be lifetime users of all three drugs, but not as current users. Logistic regression analysis indicated that the lifetime use of both cigarette and marijuana was strongly associated with lifetime alcohol use.

In another study Dogbe (2003), using a case study of The Tema Secondary (High) School, described the substance use pattern of students in "Drug Abuse among second cycle schools". This study also looked into a wide range of substances used by adolescents. The study revealed that substances most often used included alcohol (85%), tobacco (72.9%), marijuana (32.4%), valium (16.7%) and libruim (7.1%). Among substances ever taken, 4.8% had taken cocaine, 2.3% heroine and 1.4% opium. Furthermore 49% of participants were introduced to drugs by friends who were not students and 17.6% were introduced by student friends and 16.2% introduced by parents. The majority (48.5%) of students used drugs for studying while 13.8% used drugs due to peer pressure.

1.2.2 South Africa

A study among a sample of high school adolescents in South Africa, investigated the prevalence of illicit drug use, cigarette smoking and alcohol drinking among participants. The findings

indicate the prevalence rate of 19.8% for illicit drug use, 10.6% for cigarette smoking and 39.1% for alcohol consumption among the participants (Madu and Matla, 2003).

1.2.3 Zimbabwe

To estimate the prevalence and predictors of illicit drug use among school-going adolescents in Harare, Zimbabwe, secondary analysis of existing data available from the Harare Global School-based Health Survey (GSHS) was used. A total of 1984 adolescents participated in the study. Of the sample 50.7% were females (15-year- olds (30.3%), nonsmokers and non-alcohol drinkers. Nine percent of the subjects (13.4% males and 4.9% females) reported having ever used marijuana or glue. Logistic regression was use to assess the association between illicit drug (marijuana and glue) use and explanatory variables. Males were more likely to have used marijuana or glue than females Marijuana or glue use was positively associated with cigarette smoking, alcohol drinking and sexual intercourse. Parental supervision was a protective factor for marijuana or glue use. The study concluded that illicit drug use by adolescents in Harare is associated with male gender, sexual activity, alcohol use, current cigarette smoking and parental supervision (Rudatsikira et al, 2009).

In a World Health Organization epidemiological survey on 120,000 adolescents from 28 countries and regions, among 15 year olds 20% of the boys and 21% of the girls in the United States were reported to smoke daily. The numbers for their European counterparts ranged between 20 and 30%, with girls exceeding boys in most countries (Gabhainn and Francios, 2000). With regard to

alcohol consumption, the gender profile was reversed- In the United States 23% of 15-year-old boys drank alcohol at least once a week compared with 15% of girls; in European countries these numbers mainly ranged between 10 and 30% in girls and 20 and 45% in boys (Gabhainn and Francios, 2000).

The European Union revealed in its "2001 Annual Report on the State of the Drugs Problem in the EU", that in the 15- to 16-year age group, lifetime prevalence of substance abuse ranged between 4.5% (Greece) and 41.5% (Wales), with cannabis accounting for 80–90% of this drug use (EMDDA, 2001).

1.2.4 Germany

In a German epidemiological survey involving 3,000 adolescents aged 14 to 24 14.1% of girls showed tobacco dependence, 15.8 % boys; alcohol dependence occurred in 2.2% of girls and 7.3% of boys. The Munich Composite International Diagnostic Interview was used for the interviews (Wittchen et al., 1998).

Researches from The University of West Germany examined the relationship between substance use and the adolescent's experiences with peers, family, and school in a study of two cohorts of normal adolescents in early and in middle adolescence. The results of cross-sectional analyses of this longitudinal study, revealed that involvement with deviant peers and perceptions of school

failure were linked to greater substance use, particularly in early adolescence. Levels of substance use appeared to be stable by middle adolescence. It is argued that substance use is one means by which the adolescent can attain some sense of adult status (Galambos and Silbereisen,1988).

1.2.5 USA

In a survey in the U.S., of adolescent girls and 19.5% of boys between ages 12 and 17 smoked. Alcohol use was present in 35.3% (girls) and 36.7% (boys), respectively. Diagnostic and Statistical Manual of Mental Disorders, 4th edition, criteria for alcohol dependence were met by 8.7% of the girls and 7.5% of the boys (Kandel et al., 1997).

In another study carried out by Kosterman et al, (2000) the dynamic patterns and predictors of alcohol and marijuana use onset among high school children in the US was examined. The sample was derived from a longitudinal study of youth interviewed annually from 10 to 16 years of age and at 18 years of age. The study results showed that at the age of 10.5 years, 25% of the participants reported that they had tried alcohol, while 3% had tried marijuana. The Alcohol initiation rose steeply up to about 13 years of age, by which point an additional 39% of the sample had used alcohol; most participants had initiated by 13 years of age. Marijuana initiation showed more participants initiating after the age of 13 years. Nearly 37% first used marijuana between the ages of 13 and 18 years. The study concluded that young people exposed to others who use

substances were at higher risk for early initiation and proactive parents could help delaying alcohol and marijuana use.

Adolescent drug use motivations were examined from the perspective of Marcia's (1966) operationalization of Erikson's psychosocial theory of human development. A random sample of 1,691 students in grades seven through twelve in Arizona, participated in the study. Findings revealed that reported motivations were significantly different across all four ego-identity stages (achievement, moratorium, foreclosure, and diffusion). Generally, respondents classified as either achieved or moratoriums were much more likely to cite curiosity and recreation as motivations for substance use than their peers who were classified as foreclosed or diffused, who cited peers and boredom. Diffused respondents were likely to cite fear of parents finding out, and fear of arrest as reasons for not trying alcohol, whereas the achieved and moratorium youths were simply not interested or expressed health concerns. Religion emerged as an important discriminator between the identity statuses as well. Foreclosed respondents were one and one-half times more likely than the achieved, four times more likely than the moratorium, and five times more likely than diffused respondents to cite religion as a motivation for abstinence. The study concluded that adolescents use psychoactive substances for reasons which vary according to identity status (psychosocial maturity) and that the findings point to the need for tailoring prevention efforts to developmental differences. (Christopherson, 2003).

In a cross-sectional survey involving 10- to 15-year-old subjects in United States, and, Australia, 5769 students in grades 5, 7, and 9, drawn as a 2-stage cluster sample in each state, and the questionnaire was completed in the school classrooms. The results showed that the odds of lifetime substance use were almost twofold higher in mid-puberty and were threefold higher in late puberty after adjustment for age and school grade level. Recent substance use was moderately higher in mid -puberty and more than twofold higher in late puberty. The odds of substance abuse were twofold higher in mid-puberty and more than threefold higher in late puberty. Reporting most friends as substance users was more likely in the later stages of pubertal development, a relationship that accounted in part for the association found between later pubertal stage and substance abuse. The study concluded that pubertal stage was associated with higher rates of substance use and abuse independent of age and school grade level. Early maturers had higher levels of substance use because they entered the risk period at an earlier point than did late maturers. The study findings support prevention strategies and policies that decrease recreational substance use within the peer social group in the early teens.

CHAPTER THREE

3.0 METHODS

3.1 Type of study/Study Design

The study was descriptive and cross-sectional in design using quantitative and qualitative methods to collect data.

3.2 Study Location/Area

The Dangme West District is situated in the Southeastern part of Ghana with a total land area of 1,442 square kilometers making it the largest of the six districts in the Greater Accra Region. The land size represents 41.5% of the regional land area.

The district was carved out of the former Dangme District in 1988 as a result of a national decentralization reforms in the country. The district shares boundaries with the Yilo Krobo District on the North- West, North-Tongu District on the North-East, Akwapim-North District on the West, Tema District on the South-West and Dangme-East District on the East. The district is divided into four administrative sub districts, namely: Dodowa (Shai) sub district, Prampram sub district, Great Ningo sub district (Formerly Old Ningo) and Osudoku sub district. The Osudoku

and Old Ningo sub districts cover a greater land area than the Prampram and Dodowa sub districts. At a growth rate of 2.1 percent, the estimated population using the 2000 census is 120,065 (2005). A large proportion of the population lives in scattered small communities of less than 2000 people. Due to widespread poverty most people out-migrate to find jobs.

The vegetation is mainly coastal savannah with a small transitional zone along the foothills of the Akwapim Range. The pattern of rainfall is bimodal and the main agricultural activities undertaken are livestock and crop production. Fishing and fish processing and other agro-processing activities are carried out by the inhabitants.

The Dangme-West District is largely rural, which reflects in the occupational distribution with agriculture employing 58.6 per cent of the people. Trading is the next largest employment, with 22.1 per cent of the people engaged in trading. Even though the district is part of the Greater Accra Region, which hosts the National capital, the urban influence of Accra, in terms of occupational characteristics has not penetrated the district. The occupational structure in the district is, however, almost equal to the national average of 55 percent in the agricultural sector.

Oyster shells abound in the Volivo (Asutsuare) area. The entire Asutsuare area is surrounded by the Lower Volta where fresh water lobsters are fished. Ningo and Prampram are fishing communities with a lot of unemployed youth. Doryumu, the ancestral home of the Shais, has a Game Reserve for tourist attraction. The Shai hills present in this area has a lot of stone quarries.

The district capital Dodowa has a hospital recently upgraded from clinic status and one community clinic. There is community clinic in Prampram, two in Osudoku and one in Ningo which also serves as a Community Based Health and Planning Services (CHPS) centre. There is another CHPS centre at New Ningo, which is within the Prampram sub district. There are also four private health institutions in the district. The district hosts a health research centre of the Ghana Health Service – The Dodowa Health Research centre which has a close link with the Dangme West District Health Administration.

The Dangme West District Directorate of Education is headed by a Director. It superintends teaching and learning at the pre- tertiary level and has 79 Primary Schools, 55 Public Junior Secondary Schools and 3 Senior Secondary Schools. It has 35 Public Pre-Schools and 50 Private Pre-Schools. For easy management and supervision of the schools, the district is divided into 8 circuits. Each circuit has about 13 schools with Dodowa being the largest while Nyigbenya is the smallest.

The district has 3,307 and 15,051 pupils in pre-schools and primary schools respectively. The enrolment figures in the JSS and SSS are 5,215 and 2,399 students respectively. The teacher-pupil ratio for the three levels that make up the basic education level in the district currently stands at 1:29, 1:29 and 1:18 respectively is low as compared to the national average of 1.35 for pre-school and junior and 1:45 for primary school. This broad pattern notwithstanding, there is shortage of primary school teachers in Old Ningo and Nyigbenya and other places. Poor staff accommodation and the general deprivation has discouraged teachers from accepting postings into schools in the

remote parts. Thus there are some classes without teachers. This situation has further discouraged enrolment in these areas even though the population of children within the ages of 4 -15 within the district is generally high.

3.3 List of Variables

Dependent variables

Substance use

Age of onset of substance use

Independent variables

Background variables

Have parents

Mother's religion

Father's religion

Guardians' religion

Number of siblings

Position in line of brothers and sisters

Parental/guardian occupation

Friends with substance use

Parental /sibling substance use

Work for money

Sources of money

Type of work done for money

Knowledge about substance use

Perception on effects of substance use on the individual and society

3.4 Study Population

There are 60 Junior high schools with an estimated number of 5215 Pupils in the Dangme West. All pupils in the Junior High Schools within the eight circuit areas in the district were considered for the study. All JHS pupils in the Dangme West District were included. The study unit is a JHS pupil in the Dangme West District.

All JHS pupils in the Dangme West District were included. The study unit is a JHS pupil in the Dangme West District.

3.5 Sample size determination

The sample size for JHS pupils was determined using the formula below.

$$n = \frac{z^2 \times p\,q}{d^2}$$

Where:

n = desired sample size

z = the standard normal deviation at 95% CI = 1.96

p = the estimated proportion who use substances (alcohol) = 0.40

q = the proportion who do not use substance

= 1 – p = 0.6

d = the allowable/margin of error = 0.05

Therefore, n= 369 (minimum sample size)

Different study results report the prevalence of substance use among adolescents age 15-19 years. In Ghana the reported prevalence in a study conducted among Senior High School and Out -of-school Youth, ranged from 8.7% for tobacco to 25.3% for alcohol (WHO Substance Abuse Research Report, 2003) to 72.9% for tobacco and 85% for alcohol, and 32.4% for marijuana (Dogbe,2003). Therefore, 40% prevalence of substance use is used to calculate the estimated minimum sample size.

3.6 Sampling method

From the estimated minimum sample size, the proportion of pupils for each circuit was determined and systematic random sampling employed to select respondents from each school.

For representativeness, at least one JHS was selected by simple random sampling from the list of JHSs in each circuit. The list of schools within each circuit was numbered and at least one school

balloted for from each circuit area. On arrival in a school each JHS class register was obtained from the head teacher. The required number of pupils was selected by balloting. Any pupil who was selected and was absent was replaced by balloting for another pupil. This continued till the required numbers of pupils were obtained.

Participants of focus group discussions and key informants were selected by convenient sampling. The class teacher was asked to select eight or nine friends in the class for each focus group. The JHS Form 3 pupils had completed their basic certificate examination earlier in the month and were not available to participate in the study. The key informants were 5 key informant interviews.

3.7 Data Collection Techniques/Methods and Tools

Structured questionnaire and focus group discussions and key informant interviews using interview guides and observation of vendor points were used to collect data.

3.7.1 Structured Questionnaire

A structured questionnaire was completed by each of the selected pupils in JHS 1 and 2. Selection of pupils was by simple random sampling. This standardized structured questionnaire was adopted from a study by The National Health Learning and Research Centre, funded by WHO and the Ghana Health Service.

3.7.2 Focus Group Discussions (FGD)

There were four focus group discussions (FGD) held within two schools. These were made up of 2 groups of JHS boys and 2 groups of JHS girls within a selected school (Dodowa Presby JHS) and a non-selected school (Kajanya D/A JHS). The number of participants in three of the groups was 8 and one had 9 discussants**.** The members of the focus groups were selected by convenience. Discussions were held using a standard tested interview guide adopted from a study done in Ghana in 2004.

3.7.3 Key Informants Interview (KII)

Key informants were selected by convenience from some of the communities with the help of the research assistant. Among them was the chief of Natriku, the Asutuare Police inspector in charge of the station, the minster of Assemblies of God church overseeing the Osudoku and Akuse circuits, and a nursing officer from the Akuse Government Hospital.

3.7.4 Observation of Vending Points

This was carried out in Asutuare and Natriku. Sales points for alcohol in these areas were mainly unmarked houses or kiosks. No young people were seen to visit the sales points. One sales point for alcohol in Asutuare sold several other items which made it difficult to identify exactly what people went there to do. On a small bridge at the outskirts of Natriku on a path to the river side, was a place where young people met to smoke marijuana. No one was observed around the place

during the time of observation at about 11- 12 noon. Although the police inspector informed us that the youth usually smoked along the river banks, he cautioned that it was dangerous.

3.7.5Procedure

With the research assistant we sent letters of approval from the director of education as well as copies of letters of introduction from the school of public health were sent to the heads of the selected schools. Introduction was done in some schools before the start of the study. During this visit the head teacher was informed about the details of the study and arrangements to be made to get the pupils who would participate into one classroom without the presence of their teachers for about 45minutes to fill the questionnaire.

A research assistant from the district was recruited. Training involved introduction to the purpose of the study and ensuring that the assistant is thoroughly familiar with the objectives and the methodology of the study. He was taken through questionnaire and for each question he be taught why the information is required. He was involved in carrying out the pilot study with the researcher. He was introduced to the head and staff of the schools selected.

In each school all JHS Pupils were informed by the researcher assistant about the study and how participants were to be selected. Pupils were allowed to ask questions to clarify any points. They were assured of confidentiality and anonymity. Selected participants were taken through the

structured questionnaire as a group. Each participant was given a pencil, eraser and sharpener to use for completing the questionnaire. Each question was read out aloud to the pupils by the researcher and interpreted into Dangme by the research assistant and students given time to answer the questions.

Sitting arrangement was done in such a way as to discourage communication between pupils. A total of 14 days was used to collect data from the 10 JHSs selected. All questionnaires were collected from participants and checked for completeness and accuracy and any irregularities at the school. At the end of the session apart from the pencils and erasers given out, a snack and drink was given to all participants in each selected school. School heads and some teachers were given pocket diaries or pens.

3.8 QUALITY CONTROL

The Research Assistant underwent a 2-day training where he was introduced to the research protocol and the questionnaire and made to undergo interview simulations to polish up his skills. This was important in order to familiarize him with the questionnaire administration and thus reduce inconsistencies and biases during the explanation in the Dangme language.

Each question was explained in English and Dangme to ensure that participants understood clearly what the question meant. Furthermore, participants were encouraged to ask the researcher and

the assistant to spell any word they had problems with or give further explanation during the session.

Teachers and members of staff were not allowed to sit in the classroom during the time when pupils were completing the questionnaires. All participants were gathered in one classroom to ensure proper supervision by researcher, and a Form 1 boy sat with Form 2 girl to discourage talking, copying or comparing answers.

To ensure quality of work, the researcher accompanied the research assistant to every school to collect data and to cross-check on data collected. All questionnaires were collected from participants and checked for completeness and accuracy and any irregularities at the school. All (7%) data collected were kept by researcher for analysis and report writing. At the data analysis stage researcher again checked that data was complete and consistent.

3.9 DATA PROCESSING AND ANALYSIS

All data collected by the structured questionnaires was analyzed using SPSS. Frequency tables, descriptive and analytical were used to describe and compare characteristics and other variables of pupils who used substances and those who did not. For socio-demographic categorical data (e.g. mothers religion, father's religion etc), summary tables of frequency counts (and percentages) are presented for those who use substances and those who do not use substances. For assessing the

factors that influence substance use, summary tables of frequency counts (and percentages) of the relevant measures were presented for those who use substances and those who do not use substances, and were compared using Pearson's chi-square tests.

Focus group discussions and key informants interview data was analyzed manually.

3.10 ETHICAL CONSIDERATION/ ISSUES

Permission was first from the ethical board of the University of Ghana. This was approved and a letter of introduction from the School of Public Health was sent to the Dangme West District Education and Health Directorates, informing them of the study and its intent and requesting permission to carry out the study. The researcher was formally introduced to all the circuit heads at the education directorate. A copy of the letter of introduction and approval from the Director of Education was sent to the heads of JHS selected for the study. Letters of introduction was also sent to the District Police Commander and the district health administration. The study is a non-invasive one and is not likely to cause any physical harm therefore to deal with ethical issues associated with this study; verbal permission was sought from respondents associated with the study. The purpose of the study was comprehensively explained to them and given the opportunity to decide whether they will like to partake in the study.

Participants were ensured of confidentiality. Teachers were not allowed into the classroom during the time when pupils completed the questionnaires. Data collected was also held in strict confidence.

3.11 Pretest or Pilot Study

The questionnaire for the study was pre-tested with twelve JHS pupils at the Kajanya D/A JHS. The researcher and the research assistant carried out the pilot study. Points to be noted and assessed during the pretest included, availability of the sample needed for the full study, desire of the pupils to participate, clarity of the language used and time needed for administering the questionnaire. Based on feedback from the pre-test the questionnaire was modified to ensure its suitability to the study.

3.12 CONSTRAINTS AND LIMITATIONS

This study's limitations to be noted are as follows:

The JHS Form 3 pupils were not available to participate in the study. This group may have older and therefore would be more likely to use substances.

The study was carried out in the school where teachers were around although they were not present in the classroom. Some teachers however waited behind the classroom windows. This may have influence the responses of pupils.

A number of pupils had difficulty spelling and this may have affected their responses.

The classrooms were extremely hot and dark and some were crowed because the classrooms were too small. These may have stressed the participants and affected their responses.

Sessions carried out just before school closing time may also affect participants' responses in their bid to complete the questionnaire and leave for home.

Observation of vendor points which are normally patronized by the youth very early in the morning or in the evenings was done during mid-morning and afternoon.

CHAPTER FOUR

4.0 ANALYSIS AND RESULTS

This chapter presents findings of the study in the form of results obtained from the analysis. This is done in relation to the study's objectives. The findings reveal that a total of 366 JHS pupils completed the structured questionnaire while 33pupils participated in focus group discussions. The study included participants from Form 1 and 2 only because Form 3 pupils, who had completed the Basic Education Certificate Examination (BECE) and vacated before the rest of the school, were not available.

Data from 366 pupils from nine JHSs in the Dangme West District, comprising of 174 males and 192 females respondents, were analyzed and compared on measures relating to substance use, age of first or initial use, socio-demographic background and knowledge and perceptions about substance use.

For categorical data on socio-demographic characteristics and perceptions on substance use (e.g. mothers religion, father's religion etc), summary tables of frequency counts (and percentages) are presented for those who use substances and those who do not use substances and compared using Pearson's chi-square tests. For continuous socio-demographic data such as age, summary tables of means, standard deviation and ranges are presented for those who used substances and those who do not, and the 2-sample t-test was employed to compare the two groups. In some cases, graphical presentations were provided to highlight the level of difference between those who use substance and those who do not.

In the case of sparse data (less than 2% of observations falling in any cell), the assessments of respondents in such categories were either excluded or collapsed into meaningful "higher" categories for test purposes, although the tabulations themselves present all known categories.

Tabulations of frequencies and percentages and graphical presentations were done using SPSS (version16.0). All statistical tests were conducted as two sided, and declared significant for *p*-values <0.05.

4.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS AND SUBSTANCE USE

Table 4. 1: SOCIO-DEMOGRAPHIC CHARACTERISTICS AND SUBSTANCE USE

Variable		Substance Use		Total	*p*-value
		Yes	No		
		n (%)	n (%)	n (%)	
Age(Years)	N Mean Std. Dev. Range (Min-Max)	62 15.9 1.7 13-25	298 15.2 1.9 13-21	360 15.3 1.8 13-25	0.003**
	Total	62	298	360	
Sex	Male Female	34 (54.8) 28 (45.2)	140 (46.1) 164 (53.9)	174 (47.5) 192 (52.5)	0.223
	Total	62 (100)	304 (100)	366 (100)	
Class	Form 1 Form 2	28 (45.2) 34 (54.8)	156 (51.3) 148 (48.7)	184 (50.3) 182 (49.7)	0.403
	Total	62	304	366	

		(100)	(100)	(100)	
Age of first or initial Use (years)	11 12 13 14 16 17 18 19 20 21 25	22 (37.9) 6 (10.3) 7 (12.1) 3 (5.1) 1 (1.7) 1 (1.7) 1 (1.7) 10 (17.2) 5 (8.6) 1 (1.7) 1 (1.7)	0 (0.0) 0 (0.0) 0 (0.0) 0 (0.0) 0 (0.0) 0 (0.0) 0 (0.0) 0 (0.0) 0 (0.0) 0 (0.0)	22 (37.9) 6 (10.3) 7 (12.1) 3 (5.1) 1 (1.7) 1 (1.7) 1 (1.7) 10 (17.2) 5 (8.6) 1 (1.7) 1 (1.7)	– Cannot be tested
	Total	58 (100)	0 (0.0)	58 (100)	
Father's Religion	Christianity Moslem Traditional	51 (82.3) 2 (3.2) 9 (14.5)	245 (81.1) 50 (16.6) 7 (2.3)	296 (81.3) 52 (14.3) 16 (4.4)	<0.001**
	Total	62 (100)	302 (100)	364 (100)	
Mother's Religion	Christianity Moslem Traditional	53 (85.5) 4 (6.5) 5 (8.1)	270 (89.4) 26 (8,6) 6 (2.0)	323 (88.7) 30 (8.2) 11 (3.0)	0.036*

	Total	62 (100)	302 (100)	364 (100)	
Person living with	Both Parents	77 (44.3)	92 (47.9)	169 (46.2)	0.368
	Mother only	42 (24.1)	41 (21.4)	83 (22.7)	
	Father only	13 (7.5)	12 (6.2)	25 (6.8)	
	Relative	42 (24.1)	47 (24.4)	89 (24.4)	
		174 (100)	192 (100)	366 (100)	
Parent's/Guardian's Occupation	Petty Trader	63 (55.5)	136 (51.8)	199 (54.9)	0.751
	Farmer/ Fisherman	19 (30.6)	82 (27.3)	101 (27.9)	
	Other Professions	8 (12.8)	43 (20.5)	51 (14.1)	
	Unemployed	3 (4.8)	8 (2.6)	11 (3.1)	
	Total	93 (100)	269 (100)	362 (100)	
Number of siblings	1-3	21 (33.9)	115 (38.3)	136 (37.6)	0.081
	4-5	35 (56.5)	135 (45.0)	170 (47.0)	
	6 or more	6 (9.7)	50 (16.7)	56 (15.5)	
	Total	62 (100)	300 (100)	362 (100)	
Type of Work	Fishing	6 (10.2)	19 (7.7)	25 (8.2)	0.051
	Farm labourer	34 (57.7)	105 (42.7)	139 (45.6)	
	Selling/ Trading	16 (27.1)	112 (45.5)	128 (42.0)	
	Other				

		3 (5.0)	10 (4.1)	13 (4.3)	
	Total	59 (100)	246 (100)	305 (100)	
Sources of Money	Parents/ Guardians Gifts From work	20 (37.0) 18 (33.4) 16 (29.6)	131 (49.4) 86 (32.3) 48 (18.1)	151 (47.3) 104 (32.5) 64 (20.1)	0.046*
	Total	54 (100)	265 (100)	319 (100)	
Place of Residence	Asutuare Volivo Larnyo Natriku Dodowa Dawenya Kpohe Old Ningo Prampram Doryumu	11 (17.7) 11 (17.7) 10 (16.1) 2 (3.2) 5 (8.1) 4 (6.5) 11 (17.7) 6 (9.7) 2 (3.2)	69 (22.8) 26 (8.6) 23 (7.6) 38 (12.6) 35 (11.6) 11 (3.6) 28 (9.3) 34 (11.3) 38 (12.6)	80 (22.0) 37 (10.2) 34 (9.1) 40 (11.0) 40 (11.0) 15 (4.1) 39 (10.7) 40 (11.0) 40 (11.0)	0.004**
	Total	62 (100)	302 (100)	364 (100)	

*Significant at 5% level, **significant at 1% level.. *P*-values based on Pearson's chi-squares for categorical data. Categories with <2% excluded from tests. For age, p-value based on 2- sample t-test

Table 4.1 above presents a summary of the socio-demographic characteristic for the 366 JHS pupils who participated in the study and whose data were available for comparative analyses. Respondents who used substances were 62 and formed 17% of participants.

The mean age of the 360 participants who recorded their ages was 15.3 years. However, the mean age of those who used substances was 15.9 years and was significantly higher (p=0.003) than those who do not use substances, whose mean age was 15.2 years.

The participants were made up of 174 (47.8%) males and 192 (52.2%) females. Substance use among males and females was found to be similar (p=0.223), with 54.8% male using substances and 45.2 % female using substances.

Participants were made up of 182 (50.3%) Form 1s and 184 (49.7%) Form 2s. There was however, no significant difference between those who used substances and those who do not use substances in relation to class (p=0.403). Substance use among Form 1s was 45.2% and non-substance use was 51.3%. Among Form 2s, substance use was 54.8% and non-substance use was 48.7%.

Among those who used substances 56 out of 62 reported their age of first or initial use. A large proportion of respondents who used substances (23 or 39.6%) first used them when they were

14years or more. However, a similarly large proportion of 21 (36.2%), first used a substance when they were less than 12 years.

Respondents who indicated their Father's religion and Mother's religion were 364. With regard to Father's Religion and Mother's Religion, an overwhelming proportion of over 80% of respondents had fathers and mothers who are Christians. Those who had fathers who are Christians were 81.3%, 14.3% had Moslem fathers and 4.4% had fathers in traditional religion**.** Father's religion differed highly significantly between those who used substances and those who did not ($p<0.001$), with a significantly greater proportion of those who do not use substances having Moslem fathers (16.6%) compared to those who use substances (3.2%). On the other hand a significantly higher proportion of those who use substances have fathers who are traditionalists (14.5%) compared to those who do not use substances (2.3%).

A large majority of respondents also had mothers who are Christians (88.7%), 8.2% had Moslem mothers and 3.0% had mothers who are traditional worshipers. Similarly there is a significant difference between those who use substances and those who do not regarding mother's religion. Among respondents, 85.5% of those who use substances have Christian mothers compared to 89.4% of those who do not use substances. Also, among those who used substances 14.6% had non-Christian mothers compared to 10.6% among those who do not use substances.

Majority of respondents lived with both parents (46.4%), 24.4% with a relation, 22.8% lived with their mother only and 6.8% lived with their fathers only. There was no significant difference between those who use substance and those who do not, in relation to person one lived with (p=0.368).

Three hundred and sixty-two respondents indicated the occupation of their parents or guardians. The majority of respondents had parents and guardians who work as petty traders (54.9%), while 27.9% work as farmers or fishermen, 14.1% are into other profession such as dressmakers, tailors, hair dressers, drivers, masons, security men, accountants, teachers and pastors. Unemployed parents and guardians formed 4.8%. The occupations were similar among parents and guardians of those who used substances and those who did not (p=0.751).

With regard to the number of siblings, 362 participants responded. Majority of respondents indicated (47%) that they had 4 or 5 siblings, 37.6% had 1-3 siblings and 15.5% had 6 or more siblings. The number of sibling of respondents was similar among those who used substances and those who do not (p=0.081).

Three hundred and five participants indicated that they sometimes worked for money, with 45.6% working as farm laborers, 42.0% involved in trading, 8.2% in fishing and 4.3% doing other jobs. The two groups engaged in similar types of activities (p=0.051).

Only 319 participants indicated their sources of money. Most of the respondents had their sources of money from their parents (47.3%) while 32.5% had their sources of money from gifts, and

20.1% from work done. The results showed that those who used a substance and those who did not differed significantly in relation to their sources of money (p=0.046). A significantly greater proportion of those who do not use substances (49.4%) compared to those who use substances (37.0%), indicated that their source of income is from their parents/ guardians. On the other hand, a significant proportion of those who used substances (29.6%) had their sources of money from work done compared with 18.1% of those who did not use substances.

Participants who indicated their area of residence were 364. Area of residence of participants was reflective of the educational circuit area of the school. They were from Asutuare (22.0%), Volivo- Larnyo (10.2%), Natriku (9.1%) , Dodowa (11%), Dawenya (11%), Kpohe (4.1%), Old Ningo (10.7%) , Prampram (11%)and Doryimu (11%) areas within the district. The places of residence differed significantly between those who used substances and those who do not (p =0.004). The proportion of those who use substances is significantly larger among those residing in Volivo-Larnyo (17%), Old Ningo and Natriku (16.6%) compared to those who do not use substances (8.6%, 9.3%, and 7.6% respectively). However, among those who do not use substances, a significantly higher portion resided in Asutuare (22.8%), Doryimu (12.6%), Dodowa (12.6%), Dorwenya (11.6%), and Prampram (11.4%) compared to those who use substances (see Table 1 above).

4.2 KNOWLEDGE AND PERCEPTIONS ABOUT SUBSTANCE USE

Table 4. 2 below is a comparative summary of respondents' perceptions and knowledge about substance use.

With regard to why the youth use substances there was no significant difference in perception between those who used substances and those who did not (p=0.440), however the majority of respondents (40.8%) think the youth use substances because of peer pressure. Twenty-five percent think young people use substances to make them work hard, 11.1% think it is because the youth have nothing to do, 10% think it is as a result of rebellion. Only 2.5% think the reason is to help them study.

There was no significant difference in perception in the age of first use or initiation of substance use, between those who used substances and those who did not (p=0.168). The majority of respondents (75.2%) however, think that the age of first use of substances is between 11-15 years.

The distribution of substances listed by the two groups of respondents were similar (p=0.068). In decreasing order of knowledge the substances listed by respondents are: alcohol/'Apketeshie'/beer (54.3%), cigarette (21.7%), 'wee'/marijuana/cannabis (20.9%) and cocaine (3.1%).

Table4. 2: PERCEPTIONS AND KNOWLEDGE ABOUT SUBSTANCE USE AND SUBSTANCE USE

		Substance Use				Total		*p-value*
		Yes		No		n	(%)	
		n	(%)	n	(%)			
Why do youth use Substances?	Pressure from friends	26	(42.6)	121	(40.5)	147	(40.8)	0.440
	Pressure from society	6	(9.8)	15	(5.0)	21	(5.8)	
		7	(11.5)	30		37	(10.3)	
		2	(3.3)			9	(2.5)	

	Rebellion	12 (19.7)	(10.0)	90 (25.0)	
	Parental influence	3 (4.9)	7 (2.3)	9 (2.5)	
	To work hard	0 (0.0)	78 (26.1)	7 (1.9)	
	To improve learning	5 (8.2)	6 (2.0)	40 (11.1)	
	To be happy		7 (2.3)		
	Have nothing doing		35 (11.7)		
	Total	61 (100)	299 (100)	360 (100)	
What age do they start using substances?	11-15	47 (83.9)	190 (73.4)	237 (75.2)	0.168
	16-20	9 (16.1)	61 (23.6)	70 (22.2)	
	21-25	0 (0.0)	8 (3.1)	8 (2.5)	
	Total	56 (100)	259 (100)	319 (100)	
List the Substances you know	Cigarette	6 (9.8)	72 (24.2)	78 (21.7)	0.068
	Alcohol, Akpeteshie	40 (65.6)	155 (52.0)	195 (54.3)	
	Cannabis 'wee'	14 (23.0)	61 (20.5)	75 (20.9)	
	Cocaine	1 (1.6)	10 (3.4)	11 (3.1)	
	Total	61 (100)	298 (100)	359 (100)	
Do the youth take substances more at home or at	School	5 (8.1)	6 (2.0)	11 (3.1)	0.017*
	Home	45 (72.6)	204 (68.5)	249 (69.2)	
	Both	12 (19.4)	88	100 (27.8)	

school?			(29.5)		
	Total	62 (100)	298 (100)	360 (100)	
Who introduces them into substance use?	Friends	39 (62.9)	213 (72.0)	252 (70.4)	0.025*
	Curiosity	7 (11.3)	32 (10.8)	39 (10.9)	
	Parents/ Relations	9 (14.5)	15 (5.1)	24 (6.6)	
	Drug pushers	7 (11.3)	36 (12.2)	43 (12.0)	
	Total	62 (100)	296 (100)	358 (100)	
What Effects do you think Substances have on the Person?	Tiredness/sickness	24 (39.4)	114 (38.4)	111 (38.5)	0.111
	Bad temper	22 (36.1)	142 (47.8)	164 (45.8)	
	fear/Disturbed sleep	9 (14.7)	28 (9.4)	37 (10.3)	
	Failure to do well at school/work	6 (9.8)	13 (4.4)	19 (5.3)	
	Total	61 (100)	297 (100)	358 (100)	
What Effects do you think Substances have on the Family	Break down in family	26 (43.3)	119 (39.7)	145 (40.3)	0.290
	relationship	15 (25.0)		68 (18.9)	
	Sickness	17 (28.3)	53 (17.7)	111 (30.8)	
	Disgrace	1 (1.7)	94 (31.3)	22 (6.1)	
	Loss of trust in				

	child	1 (1.7)	21 (7.0)	14 (3.9)	
	Worry/fear		13 (4.3)		
	Total	60 (100)	300 (100)	360 (100)	
What Effects do you think Substances have on the community	Crime/Violence	25 (41.7)	173 (57.3)	198 (54.7)	0.044*
	Accidents	20 (33.3)		85 (23.5)	
	Break down in work relationship	6 (14.6)	65 (21.5)	41 (11.3)	
	Reduce productivity	9 (15.0)	35 (11.6)	38 (10.5)	
			29 (9.6)		
	Total	60 (100)	302 (100)	362 (100)	

*Significant at 5% level, **significant at 1% level.. *P*-values based on Pearson's chi-squares for categprical data . Categories with <2% excluded from tests

Three hundred and sixty respondents answered the questions on the reasons why youth use substance. Most respondents think that substances are usually taken more at home/ in the community (69.2%) than in school. Twenty-eight percent thought substances were taken equally at home and in school. Only 3.1% think substances are used more in schools. Those who use substances differ significantly from those who do not in their perception of the places where substances are usually taken ($p = 0.017$), with 72.6% of those who use substances indicating that

the youth use substances more at home or in the community compared to 68.5% of those who do not use substances.

Three hundred and sixty respondents answered the questions on how the youth are introduced into use substance. Majority of respondents (70.4%) think that introduction into substance use among the youth is by friends, 12.0% think it is by drug pushers and 10.9% think it is from curiosity. There however, is a significant difference between the perception of those who use substances and those who do not, with regard to how the youth are introduced into substance use (p=0.025). Majority of those who use substance (72.0%) think the source is from friends compared to 62.9% among those who do not use substances. Also, 14.5 % of those who use substances think the source of initiation is from parents/relations compared to 5.1% of those who do not use substances.

Three hundred and fifty-eight respondents answered the questions on the perception of effects of substance use on a person or the individual. Majority of respondents think that substance use results in having a bad temper (45.8%), 38.5% think substance use would result in tiredness or sickness and10.3% think it would result in fear and sleep disturbances. Only 5.3% of respondents think substance use would result in work or school failure. There was no significant difference in the responses given by those who used substances and those who did not in relation to their perceptions on the effects of substance use on the individual (p=0.111).

Three hundred and sixty participants responded to the question on their perception of the effects of substance use on the family. Majority think that substance use leads to a breakdown in family relationships (40.3%), 30.8% think it brings disgrace to the family, while 18.9% think it will result in sickness in the family. There was no significant difference however, between those who used substances and those who do not with regard to their perception on the effects of substance use on the family (p=0.290).

Of the 362 who answered the questions about perception of substance use on the community, majority think that substance use results in violence and crime in the community, 23.5% think it results in accidents (road traffic accidents), 11.3% think it results in a break down in work relationship and 10.5% think it results in reduced work productivity. Their perception of the effects of substance use on the community however, differed significantly between those who used substances and those who did not (p=0.044). A significant proportion of those who do not use substances (57.3%) think that violence / crime are the effects of youth substance use on the community compared to those who used substances (43.7%). Thirty-three percent of those who use substances indicated that the effect of substance use results in accidents (road traffic accidents) compared to 21.5% of those who do not use substances. Furthermore, 15% of those who use substances think substance use results in reduced work production compared to 12.5% of those who do not use substances, while 14.6% of those who use substance think its use results in break down in work relationship compared to 11.6% of those who do not use substances.

4.3 FOCUS GROUP DISCUSSIONS AND KEY INFORMANT INTERVIEWS

The focus groups were made up of two groups of boys and two groups of girls. One group of girls and one group of boys were Form 1s, while one group of boys was made up of Form 2s and the other group of girls made up of Form 1s. The ages of boys ranged from 13-21years while the girls' ages ranged from 14-21 years.

Majority of the respondents in the focus groups lived with both parents who were Christians. The key informants were all Christians. Key informants were all adults. Majority of focus group discussants were Christians. Key informants were all Christians

The key informants included a Chief, a Police Inspector, a Nursing officer, a Reverend Minister and an Assemblyman.

Most of the participants explained substance use as taking medicine without a doctor's advice or prescription or taking an overdose or the overuse of prescribed drugs. Others described substance use as the use cocaine and other hard drugs.

"drug abuse or substance use is taking too much drugs and medicines, ...taking too much alcohol,…", " smoking", "…taking marijuana", "taking cocaine" (Form 1 girls from Dodowa Presby JHS)

"It is taking in medicine without prescription or more than necessary or taking a drug not meant for a purpose…" (Chief of Natriku)

"As for drug abuse it is a problem to the police and the country as a whole and it is our duty, the police, the duty of the police to try to eradicate the carcass or cancas or reduce it because for instance when someone is indulge in cocaine business and reach some stage, at some stage he can train people or drug baron or he can even try to take over the county through violence".(Police Inspector in -charge of Asutuare Station)

"*They have to stay in the water for a long time to man the irrigation pumps on the rice farms".*

There were several terminologies and local names given for alcohol. Interestingly most of these were given by the female discussants. Majority of discussants listed the following as the alcoholic beverages they know of:-*''apketeshi', 'goal', 'soccer', 'cardinal', gin, 'abe nsuo' Smirnoff,' stricker', 'ogididi', 'playboy', 'pusher' ,'ahookela', 'chloroquine', 'akronue tsupa'*. The male discussants mentioned '*wee', 'okunko', 'ganja', 'tabaa'*, 'tawa' and 'paracetamol' as some of the names of marijuana. Cigarette and 'asara' were the tobacco products listed. Cocaine was known by all. Only a few knew about heroine. None of them knew about inhalants or other illicit substances.

4.4PERCEPTIONS OF SUBSTANCE USE

Focus group discussants associated substance use to the desire for users to work hard to make plenty money over a short period. On the other hand all key informants sited poverty and poor

parental control in addition to the desire to work hard for more money, as the main reason why the youth use substances in the community in general.

"Parents do not have time for children. Because they do not have money to take care of the children they leave them on their own…… There's lot of poverty in the system and no jobs" (Assemblies of God minister).

"I think the youth use substances so that they can work hard to make lots of money or to study" (Kadjanya D/A JHS Form 1 girl)**.**

Majority of discussants agreed that substances are abused more at home or in the community than in schools. Some discussants however, indicated that it was more rampant in Senior High Schools than in the JHSs. They all agreed the source of initiation to substance use was friends.

Majority think that substance use is of no benefit to the person's family. However, a majority think it is of benefit to the individual and his friends because it makes him work hard for plenty money and gives appetite for food.

"Wee makes them strong to work. Some people if they want to insult….this leads to fights"

"Cocaine is the same (makes them strong to work and insult and fight). *Some people take cocaine to learn, without it they cannot learn".*

"He thinks it will make him work hard but in the end …it is of benefit to his friends, yes those who are also part of his gang….and he is brave as they are.." (Dodowa Presby JHS Form 2 girls)

"Drugs help them work hard", "..it helps 'akronue' (inguinal hernia)", "to help them build their body", "..helps them to eat. For appetite" (Form 2 pupils Dodowa Presby JHS).

Key informants indicated that those who used marijuana were involved in work as farm laborers and sand winning. All discussant agreed that substance use does not benefit the community but leads to crime in the community.

Marijuana or 'Wee' was cited as the commonest substance used by the youth in general and alcohol by both JHS pupils and the youth in the community. All discussants admitted that cocaine was not used by anyone in the community. Cigarette is smoked by only a few people. It was sometimes used by those who smoked marijuana to mask the smell of the marijuana. The focus groups discussants did not know about heroin, valium, amphetamines or inhalants. They mentioned the use of 'asra' or tobacco for sniffing by the youth in town including students of the JHSs.

*"Cocaine, alcohol, 'wee', 'akpeteshie',.... 'Asra,'……they breath it… young people take asra because sometimes they say they are having cold…".(*A Form 2 girl from Dodowa JHS Presby)

"Here I understand some of them are using this 'wee'…ooh, commonly, you don't see them drinking much alcohol than 'wee'". "The common one which is at this area is marijuana. That they hide from us. Alcohol is a problem, but not a problem as such like the drugs but a lot of the youth take it…the 'wee'. No cocaine" (Police Inspector in-charge of Asutuare Station).

Majority of key informants had come into contact with the youth in the community and Senior High Schools who use marijuana and alcohol. They had been in contact with very few JHS pupils who used substances.

"'Yes, I once call them but they never say the truth ....they are in SS not JSS"(Chief of Natriku).

"As for the alcohol I have been seeing them. Majority are not students but according to the Madame, some SS boy s were in the school…Osudoku Secondary School…..No JS S(pupils), but some who behave abnormally…the behavior, and that shows there is something pushing them. The way I see them and they are using the girls (JHS boys), last term 3 became pregnant (JHS girls in this school). The boys work and give them money" (Assemblyman for Osudo).

"Yes, doctor you see them plenty all over town. As for me I know them. They don't respect how they can insult."(Nursing Officer, Akuse Government Hospital).

"Community I'll say over sixty percent (marijuana), alcohol- ninety percent or ninty-nine percent. Ephedrine, 'volume' used to learn in the student body level, SSS, thirty percent. Some of them are students -SS and even a JSS boy, the SS is more. There is not much evidence at school here, maybe anything I say will be allegation or something but there is this substance I always hear of is the alcohol and wee. The wee,…at times people take ephedrine and the wee also in the farming area…wee and alcohol. As for the alcohol I have been seeing them". (Assemblyman for Osudo).

"About forty percent of youth in the town use wee and alcohol"(Assemblies of God minister).

Most participants said the youth obtained the money to buy substances from work done. A few said some got money from stealing.

"Work e.g. sand winning money got is use for wee and alcohol and…when they go and harvest or weed the rice farm…sometimes these small small boys they make plenty money…".(Nursing Officer)

Majority of discussants thought substance use is on the increase in the communities and although it was on the increase among school children including JHS pupils, they agreed that JHS pupils used alcohol at home as appetite stimulants or during festive occasions.

"it is increasing…..when they take it you see it from their faces …and their lips - wee makes the lips black and alcohol makes it red"… "Somebody in a group or having friends who tell another person to try it and see and it continues to spread." (Dodowa JHS form 2 girls). "…and during the festivals"(Kajanya JHS form 1 girl)

"Parental control is very loose. They complain they do not have money, their rice farms are not doing well….only 30% are taking care (of their children)*.There is no control of what they have….they take decisions on their own. As they do that they encounter certain experiences* (substance use)…" (Chief of Natriku).

"Peer pressure it is increasing because they are influencing their friends more than the parents influence them. I have evidence you go and stand by any store and see- early morning or from

six. From six in the morning or the evening they buy into polythene bags (alcohol)…"(Osudoku Assemblyman).

"The youth want money and they think it will make them work hard to make money….and now there are a lot of drinking bars .."(Dodowa JHS Form 2 pupil)

The discussants agreed that it was easy to come by these substances in the communities because marijuana is grown in farms around or brought from farms in the Manya Krobo District. Because marijuana is smoked by a lot of the youth to enable them farm or fish, it was relatively easy to access it. A 'tot' of akpeteshie cost between 15 and 20 pesewas. A stick of cigarette cost 15 pesewas. The discussants did not know the cost of marijuana although they admitted that it was not expensive. Alcohol is obtained by buying from unmarked kiosks in small sachets, while marijuana was obtained by buying from drug pushers at the river bank or in the bushes. Some of the youth also bought marijuana on credit. It was evident in all the focus group discussions that the youth are usually convinced into drug use by being told of the benefits of taking drugs such as making one work hard to get more money.

"They have money, they work. I know form 1 boys who can clear one hector and are paid 180 Ghana cedis per hector". (Osudoku Assemblyman)

"From their friends in the society who, some too work for it….sometimes they go to the market to carry loads to obtain money. Sometimes the drug dealers, they themselves give it so them" ,

"Wee, sometimes they buy it on credit from the drug pushers, sometimes they get it from their friends who buy some and give them some. (Dodowa Presby JHS Form 2 girls)

"Working on rice farms, "loading sand for money", "…Banana farm workers credit 'wee' to them…" (Kadjanya D/A JHS Form 1 boys)

In assessing the Knowledge of discussants about laws on substance use they all generally agreed that it was illegal to use substances. However, they stated that alcohol was not illegal.

"The law says when anyone is smoking the wee he would be punished ….by the authorities"

"…. also there is a law about cigarette… they write it on it (the box)." (Kadjanya D/A JHS Form 1 boy)

"As for alcohol there is no law against it…..so it is not illegal"(Asutuare Police Inspector in-charge of Station).

Most of the participants indicated that there are no rules against taking alcohol. To protect the youth against substance use, vendors and users must be arrested by the police and imprisoned for many years. The discussants emphasized the role of chiefs in the communities in ensuring that planting of 'wee' is banned in the community and all wee farms destroyed and burnt. The chiefs should also discourage distilling of alcohol in the communities. Chiefs and elders as well as teachers educating the youth on the dangers of substance use were indicated in all the FGDs as a

means of preventing the youth from getting into substance use. Others also suggested that television actors should not take alcohol or smoke on screen.

Imprisonment, beating up and banishing from the community was indicated by most participants as means of helping the youth already in substance abuse to quit.

Majority Participants mentioned mass campaign against dangers of substance use and proper parental control as well as permanent employment in the community to prevent temporary jobs which encouraged the want to lots of money over a short period.

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

Introduction

The chapter discusses the study findings on the socio-demographic characteristics of the respondents and its relation to substance use, the age of first or initial substance use, and knowledge and perceptions about substance use. Furthermore it discusses how these influence substance use. The study findings of the focus group discussions and key informant interviews are also discussed.

5.1 Socio-Demographic Characteristics and Substance Use

The socio-demographic characteristics of the respondents is essential to the study, because together perceptions about substances, influence the use or non- use of substances as well as the age of initiation of use; (Barber et al, 2003; Beck and Treiman,1996).

There was a significant difference in age between those who use substances and those who do not (*p*=0.003). Those who used substances had a mean age of 15.9years which was significantly higher than the mean age of 15.2 years, among those who do not use substances. There was no significant difference in substance use between males and females. This is not very surprising because the WHO report on alcohol indicates that advertising companies today target young

women Similarly, Rumploid et al (2006) in a study on Psychotropic substance Abuse among Adolescents reported no significant gender difference in alcohol consumption. A study done by Adu-Mireku (2003) among Seniot High School in Accra reported that boys were significantly more likely than girls to be users of substances. Kandel et al, (1997) however reported that among 15-year-olds in Europe, boys were found to drink more frequently than their female counterparts.

Substance use is among participants in Form 1 and Form 2 is similar. One would have expected a higher proportion of users in Form 2 than in Form 1. This is probably due to the similarities in ages among pupils in both classes.

Parents' religion was significant in relation to substance use with more than 80% respondents indicating they had Christian parents. However, a significant proportion of those with Moslem parents do not use substances compared to those who do. Secondly, a significantly larger proportion of pupils whose parents are traditional worshipers use substances compared to those who do not. This is not surprising because as part of their religious practice Moslems do not take alcohol while traditional worshipers practice the pouring of libation using alcohol. There was also a significantly greater proportion of respondents with Christian mothers (89.4%) among non-substance users compared the mothers of substance users (85.5%). This observation illustrates the importance of religion and substance use since it is assumed that the children are influenced by the religion of their parents.

Parental support, parental control and poverty which influence substance use among the youth (Barber et al, 2003) was investigated using the person respondent lived with, the occupation of the parents or guardian, the number of siblings, whether one worked for money and type of work, the sources of money and area of residence. Majority of respondents lived with both parents (46.2%), 24.4% lived with a relation and 22.7% lived with their mother only. However, the person lived with, did not differ significantly between those who used substances and those who did not.

Parents or guardians of respondent were mostly petty traders (47.6%) and farmers or fishermen (30.6%). The occupation of the parent or guardian did not also differ significantly between the two groups; neither did the number of siblings differ significantly between them.

The majority of respondents indicated that they sometimes work for money (305 or 83.3%). This is an indication of the general level of poverty within the study area (Dangme West District Profile, 2009). However, the type of work done was similar between the two groups (p=0.051).

Sources of money was mainly from parents among respondents (47.3%), 32.5% was from gifts from friends and relations while 20.1% reported their source was from work done. Interestingly there was a significant difference between the two groups in relation to sources of money (p=0.046), with more non-substances users having their source of money from parents (49.4%) compared to (37.0%) among substance users. Also, a significantly higher proportion of substance users (29.6%) have their source of money from work compared to 18.1% among those not using substances. This observation is explained by the fact that substances are used by the youth in the

community to help them work hard. Pupils who work for money are more likely to use their money the way they like and even to buy substances to use. This is associated with poverty and poor parental control. Poor parents allow their children to work for extra money and soon they have no control over their children. This was explained by the focus group discussants and key informants interviewed.

Area of residence is significantly associated with substance use (p=0.004), with a significant proportion of those who used substances coming from Volivo-Larnyo (11 or 17.7%) and Old Ningo (11 or 17.7%) compared with those who did not use substances (26 or 8.6% and 28 or 9.3% respectively . This is important when targeting the schools and communities in dealing with the issues related to substance use.

5.2 Prevalence of Substance Use

The results reveal that prevalence of substance use among JHS pupils in the Dangme West District is 17%. This is lower than the result of a study done among adolescents and out of school youth carried out by Adu-Mireku (2003) among Senior High School pupils in Accra, with alcohol use prevalence of 25.7%. In South Africa Madu & Malta (2003) reported a prevalence of 39.1% for alcohol among High School adolescents. In the US Rumpold et al. *(*2006) report prevalence of substance use of 25% in the USA among 15 year olds. Gabhainn and Francios (2000) report

alcohol use between 10% and 45% among adolescent in Europe. Among Austrians Ramploid et al report a prevalence of 28-58% among 14-17 year olds. Although the pupils in other studies are of similar age to those in this study, it is likely that the senior high school environment contributes to substance use. Also the perception that these substances help one study which is predominant among senior high school pupils may contribute to the higher prevalence of substance use (WHO substance abuse research report, 2000). Thirdly substance use is generally higher in the urban areas than the rural areas (WHO substance abuse research report, 2000). Since the Dangme West District is predominantly rural this may account for the relatively low prevalence of substance use.

5.3 Common Substances Use

In this study the common substance used by respondents is alcohol. None of the respondents used cigarette or marijuana. In other studies, although alcohol is the major substance of use among high school pupils, it usually is not the only substance of use. A study conducted in a Senior High School by Dogbe (2003), reported the use of tobacco (72.9%), marijuana (32.4%), valium (16.7%) and Librium (7.1%) in addition to alcohol (85%). This is an important finding because it is likely that these JHS pupil will after completing school may fall into the use of marijuana because of the lack of jobs and the fact that they are mostly farmers. Student in for example 15 year old pupils in the USA were reported to use cigarette and marijuana.

Among focus group discussants the majority of respondents who reported substance were female with alcohol being the only substance reported. This result may have been due to the fact that the researcher was female.

5.4 Age of First or Initial Substance Use

The age at first use ranged from 11years to 25 years, with majority of users initiating substance use at 11 years (37.9%). This finding is comparable to the study by Leite and Parrish (1994), where they report the average age for first-time experience with alcohol, in North America, is 11 years. Escobedo et al, (1995) reported that the average age of the onset of alcohol use is found to be 14 years. Age of initiation of alcohol use is important because research has found that the earlier the age at which people begin drinking, the more likely they are to become alcohol dependent later in life and are more likely to experience alcohol-related unintentional injuries (Hingson et al., 2000; Grant and Dawson, 1997). The highest risk for developing dependence according to DeWit et al. (2000) occurs among individuals who started using alcohol at ages 11 to 14. Pagliaro and Pagliaro (1996) however, mentioned that adolescents who develop alcohol problems generally begin drinking alcoholic beverages during their early or mid-teen years.

5.5 Perceptions about Substance Use

Generally in this study there was no significant difference between those who use substances and those who do not on perceptions about why youth take substances, neither was perceived age of first use significantly different between the groups.

Effects of substance use on a person or his family were not significantly associated with substance use.

Compared to those who do not use substances a greater proportion of those who use substances think that substances are used more outside the schools than in the school. This was confirmed by the focus group discussants and key informants.

There was a significant difference between the two groups and perception about source of initiation or what makes the youth start using substances (p=0.025). Friends are perceived as those who introduce the youth into substance use by 58.3% of respondents, followed by drug pushers (15.7%) and curiosity (13.9%). A smaller proportion of respondents who use substances compared to those who do not, think that the youth are initiated into substance use by friends or drug pushers**.** This is important because it indicates the risk perception from friends and drug pushers among those who use substances is low. This may have contributed to their use of

substances. Morgan & Grube (1991) report that the perceived use of a substance by peers or a close friend is the most potent factor associated with use.

There is a significant association between substance use and perception of effects of substance use on the community (p=0.025). Compared to those who use substances (41.7%), more of those who do not use substances (57.3%) think that the effects of substance use on the community will result in violence/crime and accidents. However, respondent's perception of the role played by hard work in association with substance use was 23.7%, peer pressure (friends) 22% and idleness 12%. Generally the risk perception among those who use substances is low compared to those who do not.

Findings from the focus groups and key informant interviews indicate that although substance use is not common among JHS pupils, alcohol is the predominant substance used by pupils with more JHS girls using alcohol than boys. Also they indicate that there is an increase in substance use in the communities because alcohol and marijuana have become relatively easy to access and poverty results in parents leaving their children to fend for themselves. This has led to poor parental control with further increase in substance use. Also the youth believe that substances enable them work hard to get a lot of money.

Alcohol is generally not seen as a serious problem because there are no laws prohibiting its use.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

Findings revealed that the prevalence of substance use was 17% with a slight predominance among males (54.8%) in Form 2 (54.8%). The mean age of those who used substances was 15.9 years and differed significantly from the mean age of those who do not use substances (15.2 years). The substance commonly used by JHS pupils in the Dangme West District is alcohol with the age of first use occurring predominantly at 11 years.

Substance use among JHS pupils was influenced significantly by parents' religion, with a significant proportion of pupils with Moslem parents not using substances while a significant proportion of respondents with parents who are traditional worshipers using substances . Source of money and area of residence also influenced substance use significantly.

In conclusion substance use among JHS pupils of the Dangme West District is low but significant at age 15.9 years. Majority of users take alcohol and start an early age of 11 years. Since early onset alcohol use (11-14 years) is reportedly associated with future alcohol dependence, it is important that preventive measures into substance use are started before JHS. Gender differences in substance use were not significant; however, among focus group discussants majority of those

who use alcohol are girls in JHS form 1. Substance use is influenced by age, parent's religion, with a source of money and area of residence and socio-economic activities.

Although substance use is relatively low among JHS pupils in the Dangme West, it is likely that due to the socio-economic activities the prevalence is higher in the communities .alcohol and marijuana use are prevalent in the community but alcohol which is the prevalent substance of use by JHS pupils is not regarded as serious problem by the community compared to marijuana. This is important because pupils who use alcohol they are likely to continue their behaviors after leaving school and even start marijuana due to poor parental control the socio- economic activities.

Focus group discussions and key informant interviews helped understand some of the social issues related to substance use. Although the use is low among the JHS pupils it appears relatively higher among the youth in the community with marijuana use being significant.

6.1Recommendations

Similar studies should include Form 3 pupils and also consider out of school pupils in the community.

Information about substance use should be intensified in the schools and started at the primary school level. This is to be carried out by the Ghana Education Service, The Ghana Health Service through the District Health Administration, The District Assemblies and the information on the dangers of alcohol misuse, especially the social and medical consequences should be emphasized. Information on prevention should aim at the peer groups by giving them information about the mechanisms of peer pressure since majority of respondents think that the youth are initiated to substance use by friends. Information should not only be imparted to students in schools but also to opinion leaders and families of children to increase the parents' information about the risk associated with substance use.

Religious practices which discourage substance use should be encouraged especially by Christian and Moslem leaders in the community. Since parents of pupils are predominantly Christians the churches in the communities should take advantage and use Christian principle to encourage parents take care of their children till they are mature. This is because the majority of pupils who lived with their parents and whose source of money was from their parents did not use substances.

Ultimately provision of skills to the youth and creation of permanent jobs such as the reopening of the Asutuare sugar factory, and setting up more such factories would discourage the youth in the communities from taking substances to work hard for a lot of money before the farming season is over.

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