



## The Knowledge, Perception, Attitude and Use of Marijuana among Senior High School Students in the Bawku West District

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### Abstract

The use of marijuana is a global problem and earlier evidence suggests an increasing trend in its use in all regions of the world. Despite years of research on marijuana and its effects on the human body, significant gaps in the literature exist. The purpose of this study was to investigate the knowledge, perception, attitude, and use of marijuana among senior high school students in the Bawku West District.

With a quantitative study approach, a cross-sectional study design was employed to answer the research questions. Cluster sampling is a method of probability sampling that is often used to study large populations, particularly those that are widely geographically dispersed. Researchers usually use pre-existing units such as schools or cities as their clusters. Zebilla Senior High/Technical School was chosen among the cluster of schools in the Bawku West District. After the cluster method was used to select the school, the convenient sampling method was used to select students for data collection. A non-probability selection technique called convenience sampling selects units for the sample based on which ones are most convenient for the researcher to access. Data management and analysis was done using the Statistical Package for Social Sciences (SPSS), now known as Predictive Analytics Software (PASW) version 20.

**Keywords:** Bawku West District, Marijuana use, High school students, Quantitative study

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### Introduction

In many countries today, narcotic drug usage and addiction are social problems. According to experts, adolescent substance use is currently the most expensive and pervasive public health problem (Feinstein, Richter, & Foster, 2019).

The problem is not with drug use; rather, it is with addiction, which makes so many governments pay attention to the laws that control drug use, distribution, and manufacture.

Marijuana is one narcotic drug that puts individuals and societies at danger in the ways indicated above.

Marijuana, sometimes referred to as "weed," "herb," The terms "grass," "bud," "Ganja," and "Mary Jane" all refer to a dried flower combination of the Cannabis sativa plant that is greenish- grey in colors (National Institute of Drug Abuse [NIDA, 2019]. Some people like to consume their marijuana in the form of blunts, pipes, bongs, or joints (marijuana rolled in cigar wraps).

Some religions allow the use of marijuana to prepare tea. It may also be marketed or used therapeutically when coupled with treats like desserts and pastries (NIDA, 2018).

Some people like to consume their marijuana in the form of blunts, pipes, bongs, or joints (marijuana rolled in cigar wraps). Some religions allow the use of marijuana to prepare tea. It may also be marketed or used therapeutically with treats like desserts and pastries (NIDA, 2018). Around 181.8 million persons in the world between the ages of 15 and 64 used marijuana recreationally in 2016. Marijuana usage is a global issue, and prior research indicates that it is on the rise everywhere in the world (NIDA, 2018).

The United Nations Office on Drugs and Crime (UNODC, 2015) research states that in 2013, this substance the most widely used substance worldwide utilized a controlled psychoactive drug internationally.

According to research by Mangerud *et al.* (2014)<sup>[4]</sup>, 22.2 million Americans aged 12 and over currently consume marijuana. In particular, there is a growing pattern of teenagers using synthetic marijuana, sometimes known as K2 or "spice" (Chappell, 2017)<sup>[17]</sup>.

According to studies, drug usage has sharply grown, notably in emerging nations and among young people in Africa (Atwoli *et al.*, 2017)<sup>[11]</sup>.

Similar to those in most Western nations, this condition presents major social and public health issues. Despite being regarded as an illicit substance, marijuana, also known as "Wee" in Ghana, is currently one of the most widely grown and consumed illicit drugs among youths in the nation. Despite the paucity of data on marijuana use in Ghana, many sources have indicated that the drug's prevalence varies across the nation.

For instance, according to the most recent UN World Drug Report, about 22% of Ghanaian youth and young adults use marijuana.

Recent data from the Ghana Narcotic Control Board also shows that, out of a total of 50,000 drug users, 35,000 of these users are teenagers enrolled in junior and senior high schools in Ghana, according to Hormenu, Elvis, Thomas, and Dietmar (2018).

Reuben (2014) reiterated that the National Psychiatric Hospital receives 400 outpatient cases daily, with 30% of the cases being marijuana-related, out of which 10% are usually admitted to the hospital each year. Cannabis use has been linked to mental illness, deadly fury, lethargy, poor cognitive function, and a general lack of desire.

According to Birhanu, Bisetegn, and Woldeyohannes (2014)<sup>[15]</sup>, substance use, including the use of alcohol, tobacco, and marijuana, has grown to be a significant public health issue with concomitant socioeconomic issues. Police data and reports from mental health facilities both confirm that marijuana is the most common narcotic drug in Ghana, accounting for the bulk of psychiatric cases and drug law offenses. More worryingly, marijuana is considered by the World Health Organization (2015) to be the most widely cultivated, trafficked, and abused illicit drug worldwide. This tends to further increase the prevalence of its use and compound the debilitating effects on individuals and society at large. According to research, marijuana users have poor short-term memory, poor judgment, and distorted perception, which negatively affects their academic performance (Wilkinson, Radhakrishnan, & D'Souza, 2014).

Again, marijuana usage when young can have an impact on learning, memory, and academic performance (Meier *et al.*, 2019).

Numerous studies have shown that cannabinoids help treat nausea and vomiting in advanced stages of diseases including cancer and AIDS, despite the negative impacts of marijuana on health and society (Robson, 2014).

Several articles have recently claimed that marijuana has medicinal benefits for conditions ranging from the treatment of gout to the prevention of uterine bleeding (Thomas, 2020). Cannabis (also known as marijuana) has been suggested as a possible treatment for those with chronic pain and opioid addiction in the United States, which is now experiencing an opioid epidemic.

In a study, 841 respondents self-reported using or recently using opioids, and 61% stated they were taking them for pain. They also self-reported their opinions on how cannabis use affected them, along with cannabis (Reiman, Welty, & Solomon, 2017). According to the results, participants favoured using marijuana along with their opioid medications because it worked better than the opioids, it enabled them to take less opioids, and they would rather experience the side effects of using marijuana than the side effects of opioids (Reiman *et al.*, 2017). Overall, most of the participants would use cannabis as a treatment especially if it were easier to access.

Additionally, fewer opioid prescriptions were written, probably because marijuana can be used to treat the same kind of pain that these opioids are designed to treat (Shi *et al.*, 2019).

A study by Vigil, Stith, Adams, and Reeve (2017) found that allowing medical marijuana reduces opioid use and opioid-related mortality.

More than 80% of the subjects reduced the dosage of opioids they were taking, indicating that they were substituting cannabis for the opioids.

There have been many justifications put out for this substitution, including greater public health initiatives to raise awareness of the opioid epidemic, the possibility that marijuana would be more effective than opioids, and the fact that marijuana has less negative side effects (Vigil, Stith, Adams, & Reeve, 2017).

Despite this, the alarming safety profile of cannabis, the lack of strong empirical support for its efficacy, the general absence of clear evidence in what is used "medically," and the methodological challenges in conducting research suggest that, at present, cannabis should not necessarily be considered an optimal choice as a drug for pain management. As in other developing nations, drug misuse is an issue in Ghana as well. This is one of the many effects of rapid social change, which has led to a rise in social vices among young people.

However, it is impossible to pinpoint the exact moment that drug usage first became a problem in our country due to a lack of reliable statistics (Adu-Gyamfi & Brenya, 2015)<sup>[1]</sup>.

According to some reports, marijuana is the most often abused illegal drug in Ghana, followed by the consumption of alcohol and cigarettes on a legal basis (Adu-Gyamfi & Brenya, 2015)<sup>[1]</sup>.

Ghana has been identified as a marijuana producer for the international drug trade with significant population usage, and Ghana has been classified as the top user of marijuana in Africa and the third-highest user worldwide and the third in the world (Dogbe, 2015).

Degenhardt, Stockings, Patton, Hall, and Lynskey (2016) claim that epidemiological information on the prevalence of teenage drug use in Africa is scarce and clearly lacking.

The extent of substance usage among various teenage populations has very seldom been published in studies.

According to a recent transnational study (Peltzer & Pengpid, 2018), 4.1% of school-age adolescents reported using marijuana in the past month overall, with Ghana having the highest prevalence (8.1%). The study looked at the prevalence of marijuana and amphetamine use, as well as risk factors associated with those behaviours, among adolescents in 9 African countries. In Ghana, past local studies indicated lower prevalence rates of 2.6% to 7.2% lifetime marijuana use, but this study indicates a rise. However, there hasn't been

enough research done in the Ghanaian context to understand the negative consequences of marijuana, attitudes toward marijuana use, and the prevalence of its usage.

In other countries, both adults and teenagers have low and steadily dropping perceptions of marijuana's risk and favourability (Newport, 2017). The perceived risk of marijuana use among teenagers has decreased over the late 2020s and early 2000s.

According to survey data from 2017, the majority of teenagers do not perceive infrequent marijuana use as posing a significant risk (Johnston, O'Malley, Bachman, Schulenberg, & Miech, 2014).

### **Public health issues have emerged as a result of widespread substance abuse.**

In adolescents and young adults, cannabis usage has been reported to be higher, and research suggests that teenagers who use marijuana have a higher chance of developing psychotic problems in the future (Bechtold *et al*, 2015).

Additionally, there are additional negative behaviors connected to marijuana usage, such as binge drinking, smoking, and having numerous partners in a sexual relationship (Wright & Palfai, 2019).

Despite several initiatives to spread awareness of the negative effects of marijuana use, statistics from throughout the world indicate a rise in youth marijuana use.

Cannabis, sometimes known as "wee," is one of the most widely consumed illicit substances each year, according to Sheikh (2019), particularly with high rates of use among young individuals. This cut across all the ten regions in the country and Bawku West has not been an exception as they recorded 19 substance abuse-related cases in 2021 (Bawku West Health Directorate report, 2022). There are large gaps in the amount of knowledge about marijuana and its effects on the human body after years of research. The gaps span from the drug's actual medical advantages, which differ greatly between studies, to its actual impacts on memory, learning, and social integration. The limited drug usage studies that were carried out in Ghana were mostly concerned with the general public. Very little is known about the research on marijuana usage and its contributing factors in the Bawku West District, according to a review of the literature.

### **However, anecdotal information points to extensive marijuana use in the district.**

Anecdotal research suggests that drug use among residents of the Bawku West district is on the rise, although no study has been conducted to produce empirical data to assess the magnitude of the problem in the area the District Health Directorate annual report showed that substance-related cases recorded in the year 2021 were 19 cases.

The Rastafarian Council of Ghana and others have also stepped up their demands for the country to legalize marijuana use (Dadzie, 2019). If granted, this might result in widespread marijuana use across the nation. It is essential to determine the general public's level of awareness, attitude, and marijuana usage given the apparent rise in marijuana use and its implications on psychological outcomes.

Therefore, the purpose of this study was to examine marijuana knowledge, perception, attitudes, and use in the Bawku West District.

### **Specific Objectives**

1. To assess the level of knowledge on the use of marijuana among senior high school students in the Bawku West District.
2. To examine the attitude of students towards the use of marijuana.
3. To assess the perception of students about the use of marijuana

### **Research Questions**

**The research issues that the study aimed to address were as follows:**

1. What is the level of knowledge of Senior High School students in the Bawku West District about the use of marijuana?
2. What is the attitude of senior high school students in the Bawku West District regarding marijuana usage?
3. What is the perception of senior high school students of Bawku West District regarding marijuana usage?

### **Significance of the Study**

A study on the knowledge, perception, attitude, and use of marijuana among senior high school students in the Bawku West District is very important given the dearth of literature on its use in Ghana.

Findings about knowledge levels will assist policy makers in creating educational materials that will inform the general public about marijuana's negative effects in a sufficient and appropriate manner.

The study will also adequately inform the Bawku West District Assembly on marijuana usage among students and call attention to the necessity for the Assembly to integrate mental health and related issues in both short- and long-term goals.

Finally, the study's findings will significantly advance the body of knowledge on future research on the use of marijuana and serve as a starting point for other scholars.

### **Definition of Terms**

Relationships and actions toward marijuana usage and marijuana users are referred to as attitudes.

Knowledge: Awareness or comprehension of the repercussions of marijuana use.

Cannabis sativa, a type of hemp plant, produces dried leaves, flowers, stems, and seeds that are used to make marijuana, a hallucinogenic narcotic.

Marijuana use: In this study, marijuana use is defined as smoking the drug.

The theory of planned behavior (TPB), created by Ajzen in 2017, explains why people use marijuana and explains how people's cognitive traits relate to the creation and maintenance of behavioral patterns. As the foundation for the potential to anticipate behavior, this theory focuses on theoretical constructions regarding the many motivational elements. TPB is commonly regarded as a highly accurate predictor of behavior and behavioral intentions, which are influenced by attitudes toward the behavior and perceptions of social norms regarding it (Ajzen, 2017).

The notion of planned behavior has been recognized in contemporary literature as one of the most successful techniques for anticipating behavior (Akulume & Kiwanuka, 2016; Harwood, 2017; Kalolo & Kibusi, 2015; Lawton,

Ashley, Dawson, Waiblinger, & Conner, 2019) [6]. Ajzen defined attitude as how an individual's ideas about the results or advantages of engaging in certain behaviors (behavioral beliefs) are given weight by assessments of those results or advantages. The expected effects of marijuana use (i.e., positive and negative expectations) and the affective or evaluative components of marijuana usage can help distinguish attitudes (Petraitis, Flay, & Miller, 2017). Although result expectancies and evaluative attitudes can be distinguished from one another, both categories are thought to be conceptually separate and play equally significant roles in substance use behaviors (Stacy, Widaman, & Marlatt, 2020; Wall, Hinson, & McKee, 2018). Normative beliefs relate to adolescents' opinions of marijuana usage as being socially acceptable (i.e., how others view them when they use marijuana). Self-efficacy is frequently described as confidence in one's capacity to avoid using marijuana when it's appealing. Last but not least, behavioral intention is the desire or preparedness to begin utilizing marijuana in the future (Kam, Matsunaga, Hecht, & Ndiaye, 2019). The TPB assumes that attitudes, social acceptance, and self-efficacy come before intentions, which come before actual behavior. Level of knowledge on the use of marijuana among senior high school students.

A majority of older users perceive no or only slight health-related or other harm from frequent (e.g., several times a week) marijuana use. However, research findings show that both short-term marijuana use and early onset and chronic/long-term marijuana use are associated with more adverse health, mental health, and cognitive health outcomes than benefits (Hall & Degenhardt, 2014; Volkow, Baler, Compton, & Weiss, 2014). Evidence from multiple studies led the World Health Organization (WHO) to posit that marijuana use has a small causal impact on traffic injury; however, WHO summarized that evidence on marijuana's effect on non-traffic injuries is less conclusive (World Health Organization, 2016).

Awareness and knowledge about the harmful effects drug abuse is of vital importance for prevention as well as treatment of drug abuse. Nebhinani, Misra, Kaur, and Kulhara (2012) conducted a school-based survey on drug related knowledge and attitude among adolescents. It was found that most of the students appeared to have adequate knowledge about addictive substances and their harmful effects to the body. Similar to this finding, substantial knowledge was found about substance related effects in different populations of students (Tsering, Pal, & Dasgupta, 2020). (Tsering, Pal, & Dasgupta, 2020). In the same study, most of the students appeared to have adequate knowledge about addictive substances, their harmful effects to body and the treatment part of drug abuse.

Additionally, Geramian, Akhavan, Gharaat, Tehrani, and Farajzadegan (2019) sought to assess the determinants of drug abuse in high school students and their related knowledge and attitude. Their findings indicate that the knowledge level of high school students about addictive drugs and particularly their adverse effects is in a medium level for both sexes and in urban and rural areas. These findings are consistent with findings of another study conducted by Rockville (2019). On the contrary however, in a study carried out in the Netherlands, it was shown that the knowledge of students about tobacco and cannabis was insufficient (Sarami & Naderi, 2019).

More recently, Azofeifa *et al.* (2016) assessed national

estimates of marijuana use and related indicators in the United States. In their findings, the estimated national prevalence of perceived great risk from smoking marijuana once a month among persons aged  $\geq 12$  years was 26.5%. Additionally, the estimated national prevalence of perceived great risk from smoking marijuana once or twice a week among persons aged  $\geq 12$  years was 34.3%. Conversely, during 2014–2018 the percentage of persons perceiving no risk from smoking marijuana once or twice a week increased in all age groups. Moreover, the study of Al-zurfi *et al.* (2016) sought to examine the knowledge, attitudes and beliefs related to drugs among Pahang matriculation students in Malaysia. It was found that the prevalence of good knowledge of drug abuse was 82.03%

Attitude towards the use of marijuana among senior high school students.

Attitudes have historically been a chief focus of social psychological research given their assumed importance in guiding behaviour. Even though several studies, including those focused on cannabis, typically tend to measure attitudes in the form of a respondent's summary evaluation of overall favorable or unfavorable reaction toward an external stimulus, theoretical research on the topic has characterized attitudes as a complex phenomenon reflecting the integration of numerous factors (Hansen & Hansen, 2016).

Considerable research on adolescent substance misuse has been focused on the determinants of usage, such as parental involvement, personality characteristics, and the social environment. However, less frequent is research on adolescents' attitudes toward illicit substances and how qualities of these attitudes relate to behaviour (Hohman, Crano, Siegel, & Alvaro, 2014). Psychologists have long been at odds over the relationship between attitudes and behaviours, but today the consensus is that attitudes can cause actions. In a descriptive study to assess the knowledge and attitude regarding ill effects of substance use among adults in a selected rural community of Maharashtra, Sumitha and Pompa (2019) found that almost 82% had a positive attitude regarding the non-use of substance

In the study of Jendza (2019), the majority of participants (80.1%) feel that their attitude towards marijuana has stayed "the same" since its legalization. Just over 10% of the participants claim that their attitudes towards recreational marijuana have grown more positive while about 8% of the participants feel that their attitude has grown more negative towards marijuana. Additionally, the increasing marijuana use rate among older adults has been attributed to the aging baby boomers who have had greater exposure to marijuana (Choi, Marti, DiNitto, & Choi, 2018). Some earlier studies found permissive attitudes toward the recreational use of marijuana (Asbridge *et al.*, 2014; Barrio *et al.*, 2019). According to Allen (2020), the percentage of adolescents who think that the regular use of marijuana is risky has been declining over the years.

Despite this growing interest on attitudes toward marijuana use, there is a surprising paucity of standardized cannabis attitude measures to guide this line of investigation (Arora *et al.*, 2019).

### **Prevalence of the use of marijuana among senior high school students.**

Drug use among teenagers has gained attention since it can lead to behaviors and conditions that not only hurt health but can also cause functioning issues in later life. This hazardous

behavior is intimately linked to rising illness and death, which present significant problems for both the general public and mental health. Other detrimental effects could include, but are not limited to, decreased life expectancy, unemployment, theft, vandalism, accidents, and suicide (Henkel, 2017). There have been numerous significant changes in the rates of substance use among young people during the last three decades. Marijuana, with its highly addictive qualities, has been cited in study literature as the most widely used illicit drug in both developing and developed countries (Degenhardt *et al.*, 2008) emphasizing marijuana as a significant worldwide health risk because of nicotine (Degenhardt *et al.*, 2016).

According to Johnston *et al.* (2019) there are more than one-third of high school seniors (37 percent in 2018) and one in eight Americans over 12 years old (12.8 percent in 2019) reported past-month use. In the last month, 40.1% of school-age teenagers reported using marijuana, according to a recent global study that examined the incidence of marijuana and amphetamine use, as well as risk factors among adolescents in 9 African nations (Peltzer & Pengpid, 2018). According to Peltzer and Pengpid's study, Ghana had the greatest prevalence of marijuana use in the past month (46.1%), which is an increase over earlier local studies in Ghana that discovered lower prevalence rates of 20.6% to 27.2% lifetime marijuana use.

Due to the varying methodology used in other studies, the findings have been highlighted differently utilized demographics and designs. For instance, the Global School Based Health Survey (GSHS) recorded cannabis use at 27.9% in 2017, and a subsequent survey found that prevalence had increased to 40.2%, with significantly higher rates of use among men than women in Ghana's senior high schools (Nkyi, 2014).

#### **Perception towards the use of marijuana among senior high school students.**

Marijuana was generally perceived to be the least harmful, least addictive, and most socially acceptable, with electronic cigarettes and hookah closely following among students" (Berg *et al.*, 2015). This perception may start to shift further, with more states legalizing marijuana. Madras (2015) showed that prevalence of marijuana use increases when perceived risk of use decreases. Marijuana has been perceived to be less harmful than traditional cigarettes by college students (Berg *et al.*, 2015).

In a study, Perceptions of Ghanaian Students about the Influence of Drug Use on Academic Performance 44 (48.89%) of the participants were of the opinion that peer pressure influenced students to use drugs, 24 (26.67%) agreed that drug use was caused by advertisement. Also, 18 (20.00%) of the students agreed that drug use was caused by living in single-headed homes which results from the death of a parent, 1 student each held the view that children living with divorced parents and children who have served a term in prison have a greater likelihood of using drugs. Few (2.22%) students agreed that the use of drugs among students is influenced by the environment, personality, and ignorance about the dreadful effects of drug use on the person. These findings show that most students who abuse drugs are influenced by factors within the environment including peer pressure and advertisement, as this culminated into 75.56% of the responses. This was followed by those who stated that losing a parent could result in drug use. The students

(20.00%) believed that living in a single-headed home or living as an orphan was a causative factor (Cudjoe, Acheampong, & Gyedu, 2016).

Marijuana was also perceived to be less addictive than cigars and other tobacco products in a study by Berg (2018). This perception of low risk associated with marijuana use has not been stagnant either. Merrill showed that the perception that marijuana use had no risk to health increased from 2009 through 2013 for students in 6th, 8th, 10th, and 12th grade (Merrill, 2015). As Merrill (2015) found a low perception of harm can lead to an increase in use of marijuana (Merrill, 2015). Through changes in perceptions of marijuana use, the potential exists for marijuana use to increase over time among students. With this potential increase in usage, it will be important to have healthcare providers who understand and can discuss this topic with patients (Merrill, 2015).

Furthermore, studies on the perceived benefits of marijuana have implicated the effects as helpful in treating glaucoma, nausea, vomiting, chronic pain, inflammation, epilepsy, multiple sclerosis and more (Volkow, Baler, Compton, & Weiss, 2014). Additionally, marijuana use has been shown to help increase appetite, positive mood, and promote weight gain in individuals with cancer, AIDS and other wasting syndromes (Machado Rocha, Stéfano, De Cássia Haiek, Rosa Oliveira, & Da Silveira, 2008; Volkow *et al.*, 2014). Recreational marijuana users report perceived reasons for use including the subjective effects of relaxation, stress reduction, reflection and introspection, euphoria, socialization, aphrodisiac properties, and general enjoyment of life and activities (Osborne & Fogel, 2008).

#### **Factors associated with the use of marijuana among senior high school students.**

It is crucial for educators and administrators to comprehend how marijuana impacts college students' academic performance as well as how use and abuse of the drug directly affects the college experience as a whole.

There is conflicting evidence about whether differences in marijuana usage prevalence are related to factors such as race (Habtamu & Adamu, 2013), socioeconomic class (SES), and living in an urban, suburban, or rural area (Humensky, 2020). Teenagers with strong family ties, positive involvement, high parental expectations for their academic performance, and high levels of parental communication and supervision, for instance, have lower rates of marijuana use (Legleye, Beck, Khlal, Peretti-Watel, & Chau, 2019). Those with dysfunctional households (Karriker-Jaffe, 2017) or those whose parents use drugs and keep them available at home (Fulkerson *et al.*, 2020) have higher rates, in comparison.

Additionally, religious belief, particularly in a fundamentalist religion (such as Christianity or Islam), is associated with lower rates, but religious affiliations with beliefs that depart from mainstream norms are associated with greater rates (White & Halliwell, 2020). (Siziya *et al.*, 2013). Religious affiliation substantially predicted marijuana use among teenagers in the area in the study by Hormenu *et al.* (2018). Teenagers who practiced Islam were more likely to use marijuana than their Christian counterparts. Although earlier studies (Michalak, Trocki, & Bond, 2017) have supported the current finding, other accessible supporting material offers contradictory information. For instance, Muslims are less likely to even drink alcohol than their religious counterparts in other nations and have been reported to strongly condemn the use of psychoactive substances (Viner *et al.*, 2016).

Additionally, a number of studies have revealed that teenagers who have connections to marijuana users' social groups or family members report greater rates of use (Kumpfer & Magalhes, 2016). Numerous indicators, including subpar academic performance, a dislike of school, and absenteeism, are linked to adolescent marijuana use (Chakravarthy, Shah, & Lotfipour, 2013) [18]. According to a new study, marijuana users have a two- to three-fold higher chance of dropping out of school than non-users (Das, Salam, Arshad, Finkelstein, & Bhutta, 2016). However, a different study among teenagers discovered that marijuana usage was more significantly linked to level of job goals than to interest or academic achievement (R. E. Thomas, Lorenzetti, & Spragins, 2017) [8] in more recent research, Hormenu *et al.* (2018) found statistically significant differences in marijuana use chances based on gender, religion, socioeconomic position, and region. Girls were found to use marijuana less frequently than boys, while Muslims were shown to consume marijuana 1.8 times more frequently than Christians. It's interesting to note that Peltzer and Pengpid (2018) found that girls in Ghana were considerably more likely than boys to have used marijuana during the preceding month.

### Research Methodology

This section outlines the research methods that were used in the study. It includes the study design, study setting, study population, inclusion and exclusion criteria, sampling technique and sample size determination, data collection procedure and study instrument. It also presents the data management and analysis, validity and reliability, and ethical considerations.

### Study Design

The study is quantitative in nature; hence a descriptive cross-sectional study design was used. Descriptive study design involves accurate portrayal of the characteristics of a particular individual, situation or a group (Mustapha, 2014). In cross-sectional study design, measurement of the independent variable and the dependent variable are taken at the same point in (Mustapha, 2014). According to Polit and Beck (2008), cross-sectional studies are appropriate for describing the status of phenomena or for describing relationships among phenomena at a fixed point in time. Again Olsen and St George (2015) indicate that in a cross sectional study, either the entire population or a subset is selected, and from these individuals, data are collected to help answer the research questions of interest. This design was hence considered appropriate for the current study. The reason being that the population used for the study would be too large to be used all due to time constraints.

### Study Setting

#### The study was conducted in the Bawku West District of the Upper East Region.

The Bawku West district is one of the fourteen districts of the Upper East region of Ghana. It was created in 1988 as a district assembly with Zebilla as its district capital and located at the Eastern part of the region. Bawku West District has a total land area of 979km<sup>2</sup>. According to the 2021 population census Bawku West District has a total population of 114,427. The district shares boundaries with Burkina Faso to the north, Binduri district to the east, Talensi/Nabdam district to the West and the East Mamprusi district to the south. In terms of education the district has three senior high

school. The predominant occupation of the Bawku West District is subsistence farming along side rearing or animal production. In terms of health care delivery, the district has one District Hospital with several health centres and CHPS compounds located throughout the district

### Study Population

The population for a study is the collective or totality of those that meet a set of specification (Polit & Beck, 2004). It is the aggregate of cases in which the researcher is interested. Therefore, the study population included all students of Zebilla Senior High/ Technical School which has a population of 1,482.

### Inclusion Criteria

All students of Zebilla Senior High/Technical schools who were available at the time of data collection qualified for inclusion in the study. Only those who were willing to participate were included in the study.

### Exclusion Criteria

All students who were not present on campus (might have taken exeat to go home) and those who were not available on campus without exeat (reasons best known to them) at the time of data collection were excluded from the study. Additionally, students who showed unwillingness to participate were also excluded from the study.

### Sample Size

Using Taro Yamane 's formula, the sample size was calculated as follows;

$$n = \frac{N}{1 + N(e)^2}$$

Where; n= sample size, N= study population size, e = sampling error,

We would like to use 95% confidence interval with 5% sampling error. With a population Size (N) of 1,482 and sampling error (e) of 0.05,

$$n = \frac{1,482}{1 + 1,482(0.05)^2}$$

$$\rightarrow n = \frac{1,482}{4.705}$$

$$\rightarrow n = 314.9$$

But due to time, the research will consider 300 respondents

### Sampling Technique

According to Etikan, Musa, and Alkassim (2016), sampling refers to the process of selecting a proportion of the population to represent the entire population. Simple random sampling is a type of probability sampling in which the researcher randomly selects a subject of participants from a population. With this method each member has an equal chance of being selected. The researcher employed this method to select the subjects.

### Data Collection Instrument

The main instrument used for the data collection was a structured questionnaire with a likert scale scores. The

instrument was chosen because of its simplicity, ability to save time and the possibility to make comparison as well as gather data from a group of people at a go. The data collection instrument was developed in line with the study objectives; thus, focusing on assessing the knowledge, attitude and use of marijuana among students in the Bawku West District. The questionnaire was divided into four major sections. Section A assessed respondents' background information such as age, sex, ethnicity and religion. Section B basically examined knowledge about the harmful effects of marijuana whereas Section C collected data about the attitude towards the use of marijuana. The final section, Section D assessed the use of marijuana using the Marijuana Smoking History Questionnaire (MSHQ). The Marijuana Smoking History Questionnaire (MSHQ) was developed by Bonn-Miller and Zvolensky (2019) and has been used successfully as a measure of marijuana use history and pattern. It contains four items that measure the smoking history of participants.

### Data Collection Procedure

Data was collected by the researcher with the help of five research assistants (colleagues at work place) who were trained on how to administer questionnaires. Data collection will be done in July 2023. The data collection will last 14 days (2 weeks). The first 4 days will be used for the research preparation team and 10 days for the actual data collection.

### Data Management and Analysis

Data management and analysis was done using the Statistical Package for Social Sciences version 25 (SPSS), now known as Predictive Analytics Software (PASW) version 25. Filled-in questionnaires were checked for completeness, coded, and entered directly into the software for analysis. Data cleaning and transformation were done before analysis. Both descriptive and inferential statistical analyses were carried out to meet the study objectives. Descriptive results took the form of frequencies, percentage distribution, means, and standard deviations and were presented in tables. Moreover, a Chi-square test of independence in a cross-tabulation analysis was done to determine the factors associated with the use of marijuana. This is because the use of marijuana is measured on two levels (use or no use).

### Validity and Reliability

Grove (2001) refers to the validity of an instrument as the determination of the extent to which an instrument measures what it is purported to measure. On the other hand, reliability is the degree to which an instrument produces stable, accurate, and consistent results (Drost, 2017). To ensure face validity, the researchers conducted an extensive literature review and examined the adapted questionnaire thoroughly to ensure that all the variables to be measured were included. Content validity which indicates the extent to which items adequately measure or represent the trait that the researcher wishes to measure was ensured by subject matter expert review by our supervisor. With regard to criterion validity, the instrument was compared with other established measures (concurrent validity) and tested over some time (predictive validity). As such, a pre-test of the study instrument, the questionnaire was conducted at the Anglican Senior High School with twenty (25) respondents who met the inclusion criteria. This is because both schools have respondents with similar characteristics. This was done to validate the questionnaire, whether it is too long or short, has difficult

wordings, or contains culturally sensitive questions. In ensuring reliability, the reliability coefficient (Cronbach's alpha) of each scale was calculated after the pre-test of the questionnaire for internal consistency.

### Ethical Considerations

In research, ethical considerations are very important, especially when it has to do with human beings as participants. According to Creswell (2019), the ethical principles underlying research are general and concern issues such as privacy, anonymity, confidentiality, honesty, and respect for fundamental human rights. To that effect, the researchers sought and obtained permission from the authorities of Zebilla Senior High/Technical School. An informed consent was also obtained from respondents before data collection commenced. The principle of anonymity and confidentiality were also adhered to hence, the identity of participants was not a requirement on the questionnaire and the information obtained was strictly confidential.

### Results and Discussion

#### Demographic Data

The demographic data involves the background educational level, religion and ethnicity.

Table 1: Demographic data

Variables	Category	of respondents; it Frequency (N)	involves age, gender, Percentage (%)
Age	15 –19	170	56.6
	20 –24	130	43.4
	25 and above	0	0.0%
	Total	300	100.0
Gender	Male	164	54.7
	Female	136	45.3
Form	Total	300	100.0
	Form 1	33	11.0
	Form 2	115	38.3
	Form 3	152	50.7
Religion	Total	300	100.0
	Christian	100	33.3

Islam	121	40.4
Traditionalist	79	26.3
Total	300	100.0
Talensi's	26	8.7
Mamprusi's	13	4.3
Kussasi's	166	55.3
Ethnicity		
Kassena's	48	16.0
Others	47	15.7
Total	300	100.0

Source: Field Survey, (2023)

Table 1 talks about the demographic data of respondents, results showed that 56.6% of respondents were between 15-19 years, 43.4% of respondents were between 20-24 years old and 25 years and above were 0.00%. Majority of respondents (54.7%) were males whereas 45.3% were females. Also, 11% of respondents were in form one, 38.3% were in form two and 50.7% were in form three. On religion, 33.3% were Christians, 50.7% were Islam and 26.3% were traditionalist.

On ethnicity, 8.7% were Talensi's, 4.3% were Mamprusi's, 55.3% were Kusasi's, 16.0% were Kassena's and others were 15.7%.

## 2. Knowledge on the effects of marijuana

**Table 2:** Knowledge on the effects of marijuana

Variables	Frequency	Percentage (%)
<b>Marijuana smoking can lead to antisocial Behaviour such as stealing or lying</b>		
Yes	232	77.3
No	68	22.7
Total	300	100.0
<b>Marijuana smoking can lead to poor school performance and higher chances of school Dropout</b>		
Yes	68	22.7
No	232	77.3
Total	300	100.0
<b>Smoking of marijuana can cause a decline in intelligence quotient (IQ).</b>		
Yes	263	87.7
No	37	12.3
Total	300	100.0
<b>Smoking of marijuana can cause short term memory problems</b>		
Yes	258	86.0
No	42	14.0
Total	300	100.0
Marijuana smoking can lead to very strange behavior, seeing, hearing or smelling things That aren't there, not being able to tell		
<b>imagination from reality</b>		
Yes	264	88.0
No	36	12.0
Total	300	100.0
<b>Severe anxiety, including fear that one is being watched or followed (paranoia) can result from marijuana smoking</b>		
Yes	146	48.7
No	154	51.3
Total	300	100.0
<b>Marijuana smoking increases one's risk of developing lung cancer</b>		
Yes	204	68.0
No	96	32.0
Total	300	100.0
<b>Marijuana smoking increases the risk of contracting sexually transmitted diseases</b>		
Yes	142	47.3
No	158	52.7
Total	300	100.0
<b>Marijuana smoking increases the risk of developing stroke</b>		
Yes	186	62.0
No	114	38.0
Total	300	100.0
<b>Marijuana smoking increases the risk of Developing heart attack</b>		
Yes	209	69.7
No	91	30.3
Total	300	100.0

Source: Field Survey, (2023)

Table 2 depicts results on respondents' knowledge on the effects of marijuana. Results showed that respondents knew

about the effects of marijuana as they agreed that marijuana smoking can lead to antisocial behaviour such as stealing or lying (77.3%), poor school performance and higher chances of school dropout (77.3%), cause a decline in intelligence quotient (IQ) (87.7%), short term memory problems (86%), can lead to very strange behavior, seeing, hearing or smelling things that aren't there, not being able to tell imagination from reality (88%), severe anxiety including fear that one is being watched or followed (paranoia) (51.3%), increases one's risk of developing lung cancer (68%), increase the risk of developing stroke (62%) and heart attack (69.7%).

## 1. Attitude towards marijuana use

**Table 3:** Attitude towards marijuana use

Variables	Frequency	Percentage (%)
<b>Using marijuana can be a pleasant activity</b>		
Yes	126	42.0
No	174	58.0
Total	300	100.0
<b>A young person should never try marijuana</b>		
Yes	193	64.3
No	107	35.7
Total	300	100.0
<b>Many things are much riskier or dangerous than trying marijuana</b>		
Yes	263	87.7
No	37	12.3
Total	300	100.0
<b>Marijuana use is one of the biggest evils in the country</b>		
Yes	167	55.7
No	133	44.3
Total	300	100.0
<b>Marijuana help people to experience life in full</b>		
Yes	128	42.7
No	172	57.3
Total	300	100.0
<b>Would you accept someone who smokes marijuana as a friend</b>		
Yes	221	73.7
No	79	26.3
Total	300	100.0
<b>Marijuana generally has bad effects on a person</b>		
Yes	114	38.0
No	186	62.0
Total	300	100.0
<b>Use of marijuana among students is not bad</b>		
Yes	163	54.3
No	137	45.7
Total	300	100.0
<b>Occasional use of marijuana is not really dangerous</b>		
Yes	204	68.0
No	96	32.0
Total	300	100.0

Source: Field Survey, (2023)

Attitude towards marijuana is presented in table 4.3. It was revealed that majority of respondents (58%) disagreed that using marijuana can be a pleasant activity. Also, majority of respondents (64.3%) agreed that a young person should never try marijuana. Most respondents (87.7%) disagreed that many things are much riskier or dangerous than trying marijuana.

Furthermore, majority of respondents (57.3%) disagreed that marijuana help people to experience life in full.

Most respondents (73.7%) disagreed that they would accept someone who smokes marijuana as a friend. Again, majority of respondents (62%) agreed that marijuana generally has bad effects on a person. Majority of respondents (54.3%) disagreed that that use of marijuana among students is not bad. Majority of respondents (68%) disagreed that occasional use of marijuana is not really dangerous. It was noted that majority of respondents (55.7%) disagreed that marijuana use is one of the biggest evils in the country.

#### 4. Perception of students about the use of marijuana

**Table 4:** Perception of students about the use of marijuana

Variables	Frequency	Percentage (%)
<b>Marijuana use is equally harmful to your health like any other substance use</b>		
Yes	112	37.3
No	188	62.7
Total	300	100.0
<b>If you try marijuana even once you are hooked</b>		
Yes	138	46.0
No	162	54.0
Total	300	100.0
<b>Marijuana use among adolescents is as a result of peer pressure</b>		
Yes	223	74.3
No	77	25.7
Total	300	100.0
<b>Marijuana use is as a result of parenting</b>		
Yes	69	23.0
No	231	77.0
Total	300	100.0
<b>Marijuana use is the work of witchcraft in the family</b>		
Yes	189	63.0
No	111	37.0
Total	300	100.0
<b>Marijuana is a result of 'juju' in the family or evil doers</b>		
Yes	221	73.7
No	79	26.3
Total	300	100.0

Source: Field Survey, (2023)

Table 4 talks about the perception of students about the use of marijuana. It was revealed that majority of respondents (62.7%) perceived that marijuana is equally harmful to one's health like any other substance use. Majority of respondents (54%) perceived that if you try marijuana even once you are hooked. Most respondents perceived that marijuana use among adolescents is as a result of peer pressure (74.3%), parenting (77%), work of witchcraft in the family (63%) and juju in the family or evil doers (73.7%).

#### 5. Prevalence of the use of marijuana

**Table 5:** Prevalence of the use of marijuana

Variables	Frequency	Percentage (%)
<b>Do you currently or have you ever smoked marijuana</b>		
No	208	69.3
Yes	92	30.7
Total	300	100.0
<b>30 Day Marijuana Use</b>		
Once per week	34	37.0
Once per day	52	56.5
More than once per day	6	6.5
Total	92	100.0
<b>How old were you when you first smoked marijuana</b>		
<21	22	23.9
16-18 years	34	37.0
19-21 years	36	39.1
Total	92	100.0
<b>How many years have you been using marijuana</b>		
Less than 1 year	56	60.9
1-5 years	36	39.1

Source: Field Survey, (2023)

Table 4.5 talks about the prevalence of the use of marijuana. It was revealed that 69.3% representing majority of respondents (69.3%) were currently not smoking marijuana whereas 30.7% smoked marijuana. Respondents who smoked marijuana opined that their marijuana use in the past 30 days were once per day (56.5%), once per week (37%) and more than once per day (6.5%). On age at which respondents first smoked marijuana, 39.1% stated between 19-21 years, 37% stated between 16-18 years and 23.9% stated more than 21 years. Respondents opined that they had been using marijuana for less than 1 years (60.9%) whilst 39.1% had been using marijuana between 1-5 years.

#### 6. Factors associated with the use of marijuana

**Table 6:** Factors associated with the use of marijuana

Variables	Frequency	Percentage (%)
<b>Relationship problems</b>		
Yes	112	37.3
No	188	62.7
Total	300	100.0
<b>Stress in school</b>		
Yes	155	51.7
No	145	48.3
Total	300	100.0
<b>Depression</b>		
Yes	235	78.3
No	65	21.7
Total	300	100.0
<b>Being anxious</b>		
Yes	162	54.0
No	138	46.0
Total	300	100.0

Easy access to substances like marijuana in school and the community		
Yes	220	73.3
No	80	26.7
Total	300	100.0
Culture practices		
Yes	224	74.7
No	76	25.3
Total	300	100.0
Religious practices		
Yes	78	26.0
No	222	74.0
Total	300	100.0
Peer pressure		
Yes	248	82.7
No	52	17.3

Total	300	100.0
Curiosity		
Yes	264	88.0
No	36	12.0
Total	300	100.0
Financial constraints		
Yes	246	82.0
No	54	18.0
Total	300	100.0
Problems at home and the society		
Yes	184	61.3
No	116	38.7
Total	300	100.0
Sleeplessness		
Yes	284	94.7
No	16	5.3
Total	300	100.0

Source: Field Survey, (2023)

Table 4.6 depicts results on factors associated with the use of marijuana. Results showed that respondents agreed that relationship problems (62.7%), stress (51.7%), depression (78.3%), being anxious (54%), easy access to substances like marijuana in school and in the community (73.3%), peer pressure (82.7%), curiosity (88%), financial constraints (82%), problems at home and the society (61.3%) and sleeplessness (94.7%) lead to the use of marijuana among students.

It was noted that respondents disagreed that cultural practices (74.7%) and religious practices (74%) lead to the use of marijuana among students.

## Discussion

### Knowledge on the effects of marijuana

Results showed that respondents knew about the effects of marijuana as they agreed that marijuana smoking can lead to antisocial behaviour such as stealing or lying (77.3%), poor school performance and higher chances of school dropout (77.3%), cause a decline in intelligence quotient (IQ) (87.7%), short term memory problems (86%), can lead to very strange behaviour, seeing, hearing or smelling things that aren't there, not being able to tell imagination from reality (88%), severe anxiety including fear that one is being watched or followed (paranoia) (51.3%), increases one's risk of developing lung cancer (68%), increase the risk of developing stroke (62%) and heart attack (69.7%).

Consistent with the above results, research findings by Nebhinani, Misra, Kaur, and Kulhara (2012) conducted in a school-based survey on drug related knowledge and attitude

among adolescents (n=210) in a high school in Chandigarh, found that most of the students, 98.1% appeared to have adequate knowledge about addictive substances and their harmful effects to the body. Similar to this recent study, level of knowledge on harmfulness of substance use among students was very high (urban = 84.6% and rural = 61.5%) and they stated media as the most frequent source of information in a study to assess the knowledge regarding harm of use and to obtain information about attitudes among high school students (n=416) (Tsering, Pal, & Dasgupta, 2010). Additionally, Geramian, Akhavan, Gharaat, Tehrani, and Farajzadegan (2019) sought to assess the determinants of drug abuse in high school students and their related knowledge and attitude using cross-sectional study in Isfahan province with a sample of 6998 students. It was observed that students in urban areas in comparison with those in the rural areas have a higher level of knowledge about the different types of drugs, adverse effects of stimulant drugs, long-term adverse effects of the drugs. Moreover, the study of Al-zurfi *et al.* (2016) sought to examine the knowledge, attitudes and beliefs related to drugs among Pahang matriculation students in Malaysia with a cross-sectional study was conducted involving 217 matriculation students. It was found that the prevalence of good knowledge on drug abuse was 82.03% and it is found that 70 (32.3%) students have heard of cannabis.

### Attitude towards marijuana use

It was revealed that majority of respondents (58%) disagreed that using marijuana can be a pleasant activity. Also, majority of respondents (64.3%) agreed that a young person should never try marijuana. Most respondents (87.7%) disagreed that many things are much riskier or dangerous than trying marijuana. Furthermore, majority of respondents (57.3%) disagreed that marijuana help people to experience life in full. Most respondents (73.7%) disagreed that they would accept someone who smokes marijuana as a friend. Again, majority of respondents (62%) agreed that marijuana generally has bad effects on a person. Majority of respondents (54.3%) disagreed that the use of marijuana among students is not bad. Majority of respondents (68%) disagreed that occasional use of marijuana is not really dangerous. It was noted that majority of respondents (55.7%) disagreed that marijuana use is one of the biggest evils in the country.

In line with the above study, a study by Jendza (2019) on Attitudes, beliefs, and changing trends of cannabis usage among college students (n = 74), showed that majority of participants (80.1%) feel that their attitude towards marijuana has stayed "the same" since its legalization. Just 10.8% of the participants claim that their attitudes towards recreational marijuana have grown more positive while about 8.1% of the participants feel that their attitude has grown more negative towards marijuana. Some earlier studies found permissive attitudes toward the recreational use of marijuana (Asbridge *et al.*, 2013; Barrio *et al.*, 2019). According to Allen (2020) in the study Legalization of marijuana and youths' attitudes toward its use, the percentage of adolescents who think that the regular use of marijuana is risky has been declining over the years.

### Perception of students about the use of marijuana

On perception of students about the use of marijuana, it was revealed that majority of respondents (62.7%) perceived that marijuana is equally harmful to one's health like any other

substance use. Majority of respondents (54%) perceived that if you try marijuana even once you are hooked. This is consistent with a study, drug related knowledge and attitude among adolescents: a school-based survey in Chandigarh with a sample (n = 210) consisted of 116 boys and 94 girls a self-reported questionnaire was employed in this cross-sectional study. Most of the students appeared to have adequate knowledge about addictive substances and their harmful effects to body but not about the treatment aspects (Nebhinani, Misra, Kaur, and Kulhara, 2012) Most respondents perceived that marijuana use among adolescents is peer pressure (74.3%), parenting (77%), work of witchcraft in the family (63%) and juju in the family or evil doers (73.7%). Corroborating with a study, Perceptions of Ghanaian Students about the Influence of Drug Use on Academic Performance using sample of 90 students out of 250 final year students, majority 44 (48.89%) of the participants were of the opinion that peer pressure influenced students to use drugs, 18 (20.00%) of the students agreed that drug use was caused by living in single-headed homes which results from the death of a parent, 1 student held the view that children living with divorced parents. The students (20.00%) believed that living in a single-headed home or living as an orphan was a causative factor (Cudjoe, Acheampong, & Gyedu, 2016).

### Prevalence of the use of marijuana

It was revealed that 69.3% representing majority of respondents (69.3%) were currently not smoking marijuana whereas 30.7% smoked marijuana. Respondents who smoked marijuana opined that their marijuana use in the past 30 days were once per day (56.5%), once per week (37%) and more than once per day (6.5%). On age at which respondents first smoked marijuana, 39.1% stated between 19-21 years, 37% stated between 16-18 years and 23.9% stated more than 21 years. Respondents opined that they had been using marijuana for less than 1 years (60.9%) whilst 39.1% had been using marijuana between 1-5 years.

In support to the above results, Azofeifa *et al.* (2016) assessed national estimates of marijuana use and related indicators in the United States. In their findings, the estimated national prevalence of perceived great risk from smoking marijuana once a month among persons aged  $\geq 12$  years was 26.5%. Additionally, the estimated national prevalence of perceived great risk from smoking marijuana once or twice a week among persons aged  $\geq 12$  years was 34.3%. Conversely, during 2014–2018 the percentage of persons perceiving no risk from smoking marijuana once or twice a week increased in all age groups. Moreover, a study on the psychosocial Determinants of Marijuana Use Among Selected Junior High School Students in the Central Region of Ghana was recently carried out by Hormenu *et al.* (2018). According to their research, 9.3% of school-age teenagers in Ghana's Central Region have ever used marijuana. In the Central Region, 9% of school-age youth reported using marijuana regularly. This incidence was lower than earlier findings of 40% and 17% marijuana use among JHS students in Ghana's Ashanti and Greater Regions' Bosomtwi, Atwima-Kwanwoma, and Dangme East Districts (Assabil, 2020).

### Factors associated with the use of marijuana

Results showed that respondents agreed that relationship problems (62.7%), stress (51.7%), depression (78.3%), being anxious (54%), easy access to substances like marijuana in

school and in the community (73.3%), peer pressure (82.7%), curiosity (88%), financial constraints (82%), problems at home and the society (61.3%) and sleeplessness (94.7%) lead to the use of marijuana among students. Similarly, study on the Influence of Socioeconomic Status on Cannabis Use Among French Adolescents, using sample 39,542 posited that student with strong family ties, positive involvement, high parental expectations for their academic performance, and high levels of parental communication and supervision, for instance, low risk of marijuana use (Legleye, Beck, Khlal, Peretti-Watel, & Chau, 2012). Those with dysfunctional households (Karriker-Jaffe, 2011) or those whose parents use drugs and keep them available at home (Fulkerson *et al.*, 2010) have higher rates, in comparison. However, a study on Alcohol and Tobacco Use during Adolescence: the Importance of the Family Mealtime Environment (n = 550) stated that religious belief, particularly in a fundamentalist religion (such as Christianity or Islam), is associated with lower rates, but religious affiliations with beliefs that depart from mainstream norms are associated with greater rates (White & Halliwell, 2020; Siziya *et al.*, 2013).

### Conclusions

The study focused on knowledge, perception, attitude and use of marijuana among students. Senior High School Students in the Bawku West District knew about or were knowledgeable on the effects of marijuana. Effects of marijuana were that marijuana smoking can lead to antisocial behaviour such as stealing or lying, poor school performance and higher chances of school dropout, causes a decline in intelligence quotient (IQ), short term memory problems, strange behaviour, seeing, hearing or smelling things that aren't there, not being able to tell imagination from reality, severe anxiety including fear that one is being watched or followed (paranoia), increases one's risk of developing lung cancer, increase the risk of developing stroke and heart attack.

There were negative attitudes among students towards marijuana use which interestingly is positive as students believed that using marijuana though can be a pleasant activity, marijuana does not help people to experience life in full, they would not accept someone who smokes marijuana as a friend, marijuana generally has bad effects on a person, use of marijuana among students is bad and occasional use of marijuana is really dangerous.

Students perceived that marijuana is equally harmful to one's health like any other substance use. If you try marijuana even once you are hooked. Marijuana use among adolescents is the work of witchcraft in the family, bad parenting, bad morals among students and juju in the family or evil doers.

Prevalence of the use of marijuana among senior high school students in the Bawku West District was low or a few students were using marijuana. They have been using marijuana in the past 30 days once per day, once per week and more than once per day. The age at which they first smoked marijuana was between 19-21 years, and some have been using marijuana for less than 1 year and between 1-5 years.

Factors associated with the use of marijuana included relationship problems, stress, depression, being anxious, easy access to substances like marijuana in school and in the community, peer pressure, curiosity, financial constraints, problems at home and the society and sleeplessness. Cultural and religious practices reduced the use of marijuana among

students.

### Recommendations

#### Based on the findings of the research, the researcher recommends the following:

Although there was awareness about the effects of marijuana use among students, there is still the need for continuous education by school authorities on marijuana use and associated health complications.

The school authorities should effectively enhance the counselling and chaplaincy department to be able to effectively provide counselling to students in a friendly and convenient environment as they are prone to such substance use due to circumstances involving peer influence and many more.

Further studies should be carried out to assess the role of religion and chaplaincy in substance use in senior secondary schools in Ghana.

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