PREVALENCE OF SUBSTANCE USE AND PSYCHOSOCIAL INFLUENCING FACTORS AMONG SECONDARY SCHOOL STUDENTS IN DODOMA MUNICIPALITY

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PREVALENCE OF SUBSTANCE USE AND PSYCHOSOCIAL INFLUENCING FACTORS AMONG SECONDARY SCHOOL STUDENTS IN DODOMA MUNICIPALITY

By

Gema Simbee

A Dissertation Submitted in (partial) Fulfillment of the Requirements for the Degree of Master of Medicine (Psychiatry) of the Muhimbili University of Health and Allied Sciences

Muhimbili University of Health and Allied Sciences

October 2012

CERTIFICATION

The undersigned certify that they have read and hereby recommend for examination of the Dissertation entitled ***Prevalence of Substance Use and Psychosocial Influencing Factors among Secondary School Students in Dodoma Municipality,*** in fulfillment of the requirement for the degree of Master of Medicine (Psychiatry) of Muhimbili University of Health and Allied Sciences.

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Prof. Gad P. Kilonzo

(Supervisor)

Date: _____

CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance by Muhimbili University of Health and Allied Sciences a dissertation entitled ***Prevalence of Substance Use and Psychosocial Influencing Factors among Secondary School Students in Dodoma Municipality,*** in (Partial) fulfillment of the requirements for the degree of Master of Medicine (Psychiatry) of Muhimbili University of Health and Allied Sciences.

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Prof. Gad P. Kilonzo

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DECLARATION AND COPYRIGHT

I, **Gema Peter Simbee,** declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

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DEDICATIONS

This work is dedicated to all Tanzanian youths and families who have been afflicted by the drug use problem. It is my hope that through this work we are going to fight together to touch the core of the problem at the family level. Together we can do it.

ABSTRACT

Background: Substance abuse among adolescents continues to be a growing concern globally and in this setting. Available information in Tanzania suggests that the drug abuse problem among youth both in school and out of school is on the increase. Adolescence is a developmental period of peak risk for onset of substance use and substance-related problems. Although many adolescents who engage in experimental use of alcohol and tobacco do not progress to regular use, some do progress and experience more chronic and severe substance-related problems that persist into adulthood. There is, however, some evidence that those adolescents who receive support from their families, schools, and the community at large are: less likely to involve themselves in substance use behavior; perform well in school; develop positive identities and grow up to be responsible adults in their families, society and at work. This study aimed at determining the prevalence of substance use and psychosocial factors influencing drug use behavior among adolescents in secondary schools in an urban setting in the Tanzanian context so that more targeted preventive measures can be developed.

Materials and methods: A descriptive cross-sectional study design; community based, using quantitative data collection methods. The study was conducted from August through November 2011 in Dodoma Municipality. The self-administered structured Student Based Health Promotion Questionnaire was modified and used to collect data.The study population comprised of 1501 ordinary level secondary school students from 12 schools who were selected using a multistage cluster sampling. A computer program SPSS windows version 18 was used to analyze the data. Both univariate and multivariate statistical analyses were done using significance level set at $P< 0.05$

Results: A total of 1496 respondents completed the study which constituted a response rate of 98.1%. Majority (44.3%) were aged between 18 and 19 years with an age range between 12 to 25 years and mean age 17.22 ± 1.87(2SD). Female respondents were 51.5%. The overall prevalence of substance use was 14.6% of whom 78.4% (n=171) of them were using a single substance and 21.6% (n=47) were using multiple substances. The commonest substances used were inhalants (7.6%) followed by alcohol (6.8%), tobacco (3.7%), cannabis (2.0%) and other substances (0.9%). The peak age of onset is 14-16 years except for tobacco which had a peak age of onset at 20 years and above. Age, gender, religiosity, parental marital status, quality of parent-youth relationship, parental monitoring and values, substance use of significant others, the person the youth spends most time with generally, and when he/she goes out; their involvement in extracurricular activities, academic performance and post secondary career goals were significantly associated with substance use. On multivariate analysis, it was found that only youths'academic performance (OR=1.20, p>0.005, 95% CI =1.05-1.37), post secondary career goals (0R=1.74, p>0.004, 95% CI=1.05-1.31); feeling understood by parents (OR=3.79, p>0.024, 95% CI=1.18-12.14) and quality of relationship with parents (OR=1.60, p>0.006, 95% CI=1.14 - 2.24) were independently associated with substance use.

Conclusion and recommendations: Substance use among Tanzanian school youths is highly prevalent. In addition, the findings confirm the importance of the quality of adolescent parent relationship and school motivation and performance as factors that positively influence substance use among youth. This calls for culturally creative intervention strategies that reaffirm the crucial monitoring role of parents and motivating role of educators. Laws and policies that facilitate and reinforce parental and educatorsroles in controlling substance abuse among adolescents should should be put in place.

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ABBREVIATIONS

CI	Confidence Interval
DEO	District Educational Officer
GSHS	Global School Based Health Survey
IDU	Injection Drug User
MNH	Muhimbili National Hospital
MoHSW	Ministry of Health and Social Welfare
MUHAS	Muhimbili University of Health and Allied Sciences
REO	Regional Education Officer
SBHPQ	Student Based Health Promotion Questionnaire
SDM	Social Developmental Model
SES	Social Economic Status
SPSS	Statistical Package for Social Sciences
UNDCP	United Nations Development Control Program
US	United States
WHO	World Health Organization

OPERATIONAL DEFINITIONS

Risk factors: Defined as characteristics or circumstances that have been shown to lead to negative outcomes. These factors tend to be cumulative and to interact with one another, thereby producing serious and detrimental outcomes (OJJDP, 1998).

Protective factors: Defined as "influences that modify, ameliorate or alter a person's response to some environmental hazard that predisposes [that person] to a maladaptive outcome" (Rutters, 1990). Research has shown us that protective factors may buffer the effects of exposure to risk factors (OJJDP, 1998, Hawkins, Catalano, & Miller, 1992)

Adolescence: Adolescence is defined as a period of transition between child-hood to adulthood. It includes teenage (13-19 years) and may overlap with youth (15-24 years). Literature defines adolescence as the period of time from early adolescence to late adolescence, between the approximate ages of 10 years to 21 years (Neinstein et al., 1996); others have defined it as a period between 10 to 19 years (Kiangi, 1995) and from 12 or 13 to 19 years (Jarvis, 1996).

Youth: WHO, (1993) defines youth as falling between the ages 10-24 years. For the purpose of this study youth will be defined according to WHO; and the terms adolescent and youth will be used synonymously.

Drug/substance of abuse: Any substance that, if taken by a person modifies perceptions of one or more of the five senses (sight, hearing, taste, touch and smell). It also modifies mood, cognition, behavior and motor function. Drugs include licit substance such as nicotine and alcohol, and illicit substance such as cannabis heroin, mandrax cocaine etc.

Drug user: Any individual who has ever used and/or is currently using drug/s of abuse.

Ever users: Youths who have tried drug of abuse in their lifetime.

Recent users: Youths who used drug of abuse in the past year.

Current users: Youths who used drug of abuse in the past month.

CHAPTER ONE

1.0 INTRODUCTION AND LITERATURE REVIEW

1.1.0 Background

Typically, substance abuse begins during adolescence (1). Patterns of behavior related to substance use are likely to be established during adolescence, those patterns can then lead to numerous problem behaviors and health risks affecting the life course (2). Epidemiological reviews on substance use among adolescents have suggested that tobacco, hazardous alcohol use, and most categories of illicit drug use have shown a consistent increase in prevalence for school-based adolescents since about 1990 in most developed countries.The trends are remarkably similar across substance use behaviors, and among most developed countries (3). In addition the majority of population-based studies suggests prevalence of drug and alcohol risk behavior increases during late adolescence to early adulthood and continues to increase with age into adulthood (4)

Findings from Bauman et al (3) showed that most life-time smokers and adult heavy drinkers began their use during their adolescent years; 80-90% of them before the age of 18; that early onset of smoking and alcohol use increases the risk of later dependence on alcohol use and cigarette smoking. Adolescents who initiate smoking are much more likely to begin using alcohol at an earlier age than those who do not and vice versa (5). In addition both cigarette smoking and alcohol use among adolescents are also known to be ‘gateways’ to the use of other substances, adding further to the negative consequences of smoking and alcohol use and the progressive pattern is well documented (6). In Tanzania the progression from cigarette smoking to alcohol, bhang (cannabis) and heroin has also been observed (7, 8, and 9).

A 2000 review of the global burden of disease from alcohol, illicit drugs and tobacco revealed that, about 4% of the global burden as measured in Disability Adjusted Life Years (DALYs) was attributable to alcohol and tobacco, and 0.8% to illicit drugs. Tobacco use was found to be the most important of 25 risk factors for developed countries and had the highest mortality risk of all the substances, especially for the elderly. Alcohol use was also important in developed countries, but constituted the most important of all risk factors in emerging economies; alcohol use affected younger people more than tobacco, both in terms of disability and mortality (5).

1.1.1 Prevalence of substances of abuse among youth

1.1.2 Prevalence estimates of substance use among youth globally

In European countries, there is considerable variation in the prevalence of legal and illegal substance use among adolescents between countries (4) with higher prevalence among adolescents from the more developed countries (10). In the US, substance use rates are shown to increase with age with a prevalence rate of 19.6% between the ages of 18-20 years. Cannabis is the most commonly used substance followed by tobacco. In fact, by their senior year of high school 80% of American adolescents have used alcohol (with 64% reporting that they have been drunk), 61% have used tobacco, 54% have used cannabis and 29% have used an illegal drug other than cannabis (1).

In the United Kingdom, cross-sectional studies have shown that among students aged 15-16 years at least 40% had used illicit drugs - mainly cannabis at some time in their lives. Also among those aged 16-24years, 38% of males and 5% of females regularly drink twice the recommended amount. A survey of 14-16 years old conducted in England showed that nearly three-fourth of the sample population had been exposed to

situations in which drugs had been available. At the age of 14 years, 38% of girls had used an illicit drug at least once, and this figure rose to 49% by the age of 16 years (11).

Similarly, a survey conducted in the Czech Republic with problem drug users indicated that 37% of new users were youths ranging in ages from 15-19 years. Furthermore, in the Slovac capital of Bratisvala almost 50% of the registered drug addicts were between the ages of 15 and 19 years (4). In the US, the use of cannabis and cocaine among students doubled between 1991 and 1994, with the average age of initiation into cannabis use being at 13.9 years. Cannabis accounted for 85% of use, while opium accounted for 10%. Youths all over the world use drugs and research findings indicate that in all of the youth cohorts, a percentage of individuals demonstrated high levels of drug knowledge and drug involvement (11).

1.1.3 Prevalence estimates of substance use among youth in Sub Saharan Africa.

Existing literature on alcohol consumption among adolescents in sub-Saharan Africa suggests that a substantial proportion of adolescents have consumed or currently consume alcohol. A study was done using a nationally-representative data from 9,819 adolescents aged 12-19 years from Burkina Faso, Ghana, Malawi, and Uganda found that overall, 9% of adolescents reported that they had been drunk in the 12 months preceding the survey (12). A national survey on prevalence and social consequences of substance use in Ghana among nationally-representative samples of in- and out-of-school youth found that the prevalence of lifetime alcohol use was approximately 25%(13). According to the 2003 World Health Survey the proportion of 18-24 year old males reporting heavy drinking (defined as consuming five or more standard drinks in one sitting at least once a week) was estimated at 8% in Burkina Faso, 1% in Ghana, and

5% in Malawi. Comparative figures for females were 5%, 0.3%, and 0.2% in Burkina Faso, Ghana, and Malawi respectively.

Studies conducted elsewhere in sub-Saharan Africa, also show that a relatively high proportion of young people report alcohol use. For example, in a study among secondary school students in South Western Nigeria, 13% of students reported current alcohol use while 26% had ever consumed alcohol. In Zimbabwe lifetime use prevalence rates of alcohol and tobacco were 9.2% (n=34) and 5.2% (n=19) respectively while that of cannabis was 4.4% (n=16) (14).

1.1.4 Prevalence estimates of substance use among youth in East Africa.

In East Africa substance abuse among youth presents a disturbing pattern. A study among Ugandan youth revealed that 0.3 % of youth were current abusers of cannabis, 5.5% of inhalants, 2.0% of opiates, 1.2% of cocaine and 2.5% of hypnosedatives (15). The 2003 Ugandan GSHS findings showed that 14% and 12% of boys and girls aged 13-15 years, respectively, reported that they had ever drunk so much alcohol that there were really drank (16). In another study conducted among school going adolescents aged 11-17 years in Uganda, 18% of adolescents reported that they had ever drank alcohol (17).

A recent study in Kenya (18) was done to estimate the prevalence of drug abuse, knowledge about drug abuse and its effect on psychosocial well-being and induced behavioral problems among students of a rural secondary school. The prevalence rates were 5.2% for alcohol, 3.8% tobacco, 3.2% khat and 1.7% bhang. Tobacco use was initiated at 10 years, while cannabis, heroin, cocaine, khat, and alcohol were initiated at 11, 12, 13, and 15 years.

1.1.5. Prevalence estimates of substance use among youth in Tanzania

In Tanzania, research indicates that as early as the 1970s and 80s increased use of cannabis among youth was noted; and as many as 5% of pupils in some primary and secondary schools had been exposed to drugs of abuse including cannabis. Cases reported to the police show that 25% of persons arrested for possession of cannabis (popularly known as bhang) were between 16 and 25 years (19). In the 1990s drug use among secondary schools appears to have been determined to some extent by the degree of urbanization of the school environment. A study carried out in Same, a small district administrative town, revealed absence of cannabis, heroin and cocaine use (20). On the other hand, a study carried out within a year in Arusha, a large regional administrative municipality revealed use of cannabis (2%), heroin (0.5%) cocaine (0.7%) (21). Lifetime use of these substances among students in Dar es Salaam was similar to the figures in the large municipality (22, 23, 24, and 25) except for inhalant abuse which was reported to be as high as 5.9% in the Dar es Salaam schools (26) and that of alcohol was 4.8% (25)

More recent data from the GSHS (2008), which included Tanzania revealed that in Dar es Salaam, the prevalence of current alcohol use among students (i.e., drinking at least one drink containing alcohol on one or more of the past 30 days) was 5.1% (3.8-6.4). Among males, 6.2% (4.1-8.2), and among females, 3.9% (2.7-5.2) reported current alcohol use. Among the current users, 37.9% of students drank one or more drinks per day on the days they drank alcohol during the past 30 days; and 10.8% (8.8- 12.8) had taken a drink before age of 14 years (27).

Cannabis has continued to be one of the commonest abused substances among youth. In a study among youth attending psychiatric outpatient clinic at MNH showed that 85% (N=200) of youth reported to have ever used it either alone (54%), in combination with alcohol (23%) or with heroin (8%).The majority used it on a daily basis. The prevalence

of other substances of abuse was alcohol (7%), heroin (6%), cocaine (1%) and khat (1%). Multiple drug use was reported by 315 of the sample; and the duration of use ranged from 2-14 years with an average period of 8 years (28).

The 2008 WHO Report in Tanzania on substance use among youth (N=303) showed that painkillers were the commonest substance used (33.1%), followed by cigarettes (19.7%), alcohol (17.8%), cannabis (14.4%), sedatives (11.5%), heroin (9.1%) and tranquillizers (8.8%). Lifetime use of other substances was low. Past 12 months' use in Zanzibar was 15.9% for cigarettes, 15.4% for beer, 10.1% for cannabis and 3.7% for heroin. In Dar es Salaam it was 10% for cigarettes, 11.1% for beer, 5.0% for cannabis and 0.3% for heroin. The percentage of youth currently using the same substances was similar in both sites (29).

Cigarette smoking has been described as the main gateway drug and for that reasons a number of studies have tried to determine the pattern of smoking among youth. In Tanzania, it is known from studies on IDUs that they started their drug use careers as early as 10 years of age by smoking cigarettes (56.2%), followed by cannabis (34.8%); alcohol (8%) and poly-drug use (1%) (7). Ross et al, a few years later looked in more detail at the history of drug use among IDU and found that men on average started using their first illicit drug marijuana aged 16, (women, 17), progressed to smoking heroin at age 20 (women, 19) and onto injecting heroin aged 25 (women, 23) (8).

The data we have on cigarette smoking in Tanzania reflects a pattern that needs to be addressed. In the early 1990s, Swai (30) reported that it starts at a young age and that rates of smoking had increased over time. Kiangi et al (31) estimated that the overall prevalence of smoking for school adolescence aged 10-19 years in Tanzania as 5.5% (male 6.5% and female 4.4%. Following on that Mokiti et al (32) reported that the

prevalence of smoking in adolescence aged 11-15 years was 7.9% (male 11.2% and female 5.3%), with male significantly higher than girls in Arusha municipality. Jagoe et al, (33) found that in Dar es Salaam 27% of males and 5% of females aged 15 and above had a history of smoking. In 2003 prevalence of cigarette smoking in youth aged 13-15 years was reported as follows: Arusha is 2.4% Dar es Salaam is 3.4% and Kilimanjaro is 2.2%, prevalence of any tobacco smoking in 2003 at Arusha 7.8%, Dar es Salaam is 10.2% and Kilimanjaro was 9.5%. Smokeless tobacco is also common with a prevalence of 3.6% among school going adolescents in Dar es Salaam (34). More recent studies confirm that the trend indicated by Swai et al (1993) has continued with a rate of 10.3% for those who have ever used and 3.4% for current users (35). Other important findings from Kaduri (35) include: higher proportion of students between age 12 – 14 years and those 18 years and older were more likely to have been ever smokers; current use was significantly seen in older adolescents aged 18yrs and above than younger groups; males were significantly more likely to have ever smoked a cigarette (16.1%) than females (4.9%). and males were more likely to have experimented.

1.1.2 Factors influencing substance use among youth

1.1.2.1 Individual factors

Gender: Studies have shown that gender is correlated with substance use behavior.This association varies with the different substances but generally it is known that the incidence of use is more among males than females. In Tanzania, a study in Dar es Salaam found that cigarette smoking was more common among boys than girls (36). Ten years later studying the same population it was found that males were significantly more likely to have ever smoked a cigarette (16.1%) than females (4.9%) (35).

In another comparative study between South African and American youths it was found that in the US, prevalence rates of past-month alcohol use were significantly higher among female students than among male ($P<.05$); in South Africa, the opposite pattern was observed ($P<.01$). In South Africa, past-month cigarette use ($P<.01$) and binge drinking ($P<.01$) rates were significantly higher among male than among female students. These significant differences were driven by the very low rates of substance use among Black female students. In both the US ($P<.01$) and South Africa ($P<.01$), prevalence rates of past-month marijuana use were significantly higher among male students than among female students. There were no significant gender differences in either country in rates of illicit hard drug use. The resiliency of female gender was significantly more pronounced in South Africa than in the US (37). However, in a study in the urban area of Pelotas, Southern Brazil among a sample of adolescents aged 15 to 18 years, found smoking was more prevalent among girls, while alcohol consumption in the previous month was more common among boys and the proportion of adolescents that reported drug use in the previous month was unrelated to sex (38).

Religiosity: Religiosity is a factor which is correlated with substance use behavior. It has been studied both as a risk and protective factor. Although there was an increase in the amount of research on the relationship between religion and substance use in the 1990s (1) yet much of the literature that recognizes religion as an important correlate of substance use focuses on the "lack" of religion as a risk factor for increased use (39, 40). On the contrary, a wide body of literature also exists which suggests that young people who are more religiously engaged (e.g. attend religious services frequently, say religion is important) are less likely to use drugs than are their less religiously engaged counterparts (1, 41, 42, 43).

Unstructured time with peers: It is known that how one uses their time can influence substance use behavior. This is especially true for the unstructured activities done by adolescents or youth. Studies have been done which investigated the association between leisure time with peers, after school activities and substance use. The results showed that time spent on various social and recreational activities like evenings out, attending parties, going to bars, taverns, or nightclubs, getting together with friends informally and dating all had positive correlation with substance use. On the contrary, time spent on constructive after school activities like involving oneself in sports, religious groups, musical lessons were negatively correlated with substance use behavior (42, 43).

1.1.2. Family and peer factors

Socio-economic status: Socio-economic status is one of the factors which correlate with substance use in adolescence and youth. A systematic literature review was conducted to clarify if socio-economic status is a determinant of marijuana and alcohol risk behavior in adolescents. A meta-analysis to identify papers that reviewed marijuana and alcohol risk behavior by SES in adolescents aged 10-15 years was done. The prevalence of marijuana and alcohol risk behavior was 22% higher (RR = 1.22; 95% CI 1.14-1.31) in adolescents with low SES in comparison to adolescents with higher SES (44). In Tanzania, Mbatia et al conducted a study among a random sample of 899 people aged 15–59 in two urban sites of differing levels of poverty. He surveyed alcohol, tobacco and illicit substance use. Rates of substance use were 17.2%. 8.7% and 0.8% for alcohol, tobacco and cannabis, respectively. Living in the less affluent area was associated with higher lifetime rates of tobacco and alcohol use (45).

Perceived environment (peer and parental influence): Considerable research has shown that adolescents who use cigarettes, alcohol, and marijuana are more likely to have friends who also use substances (40), reflecting both selection and socialization effects. Adolescents who perceive that their friends use substances and skip school are more likely to use substances and misbehave in school than students who perceive that fewer of their friends are involved in deviant behaviors (46, 47). In addition, findings based on growth modeling analyses indicate that adolescents who perceive that peers and parents are using fewer substances and that their parents monitor their activities are less likely to increase their own substance use over time (48, 49, 50, and 51).

Kristjánsson et al, (52) conducted a study to investigate factors in the social environment of Icelandic adolescents that contribute to the likelihood of cigarette smoking and alcohol use initiation and progression. The study design included among others a monitor of adolescent health risk behaviors and social circumstances. The study population included non-institutionalized children aged 15 and 16 in all secondary schools in Iceland. It was in 4 phases. The emphasis was on changes in trends of substance use and associated risk and protective factors.The findings of phase I suggested that multiple social factors are related to smoking behaviors among adolescents, including alcohol use; but of all factors considered, peer smoking was by far the strongest predictor of occasional- and daily smoking. Perceived friends attitude to smoking was also found to be important and so was perceived parental reactions to smoking. Phase III further tested the relationship between parental- and peer social support, parental and peer use, and smoking and alcohol use. Results suggested that perceived parental reactions and peer respect for use are important variables in addition to peer use.

Phase II showed that an increase in probability of smoking and alcohol use among adolescents that have experienced parental divorce or separation does not need to be a fact. However in the Tanzanian context, a study by Mndeme (28) showed that among youth aged 17 to 25 attending psychiatric unit at the National Referral Hospital found that parental separation and/or divorce had a positive correlation with substance use (53% of users compared to 24% non users (p=0.001). Similarly, a high percentage of the parents (38% for females and 40% for males) of drug users had remarried or had multiple spouses compared to 16% for females and 23% for males among non-users. Only 25% of the parents in the drug user group were married compared to 56% among the non-users.

Parent-family connectedness: Researchers have theorized that parents can both indirectly and directly influence the quality of peer relationships of their children. Indirect influences of parents include processes that are not explicitly aimed at shaping adolescent peer relationships, such as connection in parent-adolescent relationship (53, 54, 55, 56), parental support (57), and parenting styles (e.g., authoritative, permissive) (58, 59). Direct influences are parental practices and beliefs that are explicitly intended to manage their children's peer relationships, such as parental monitoring. Adolescents' experiences in the family domain may magnify or mitigate experiences in the peer domain (60, 61, and 62). Mothers and fathers play an important role in influencing peer relationships. Contrary to theories of weak parent-peer linkages, studies support maternal influence on relative peer orientation and subsequently on an outcome known to be heavily influenced by peers, adolescent substance use. In addition, there is support for the propositions of individuation-connectedness theories that the primary mechanism through which parents influence peer orientation is their relationship with their adolescents. Parents influence peer orientation primarily by being responsive to their

adolescents in ways such as expressing love or praise, being available when needed, and engaging in give-and-take discussions.

A study was done among 666 European American mother-adolescent dyads and 510 European American father-adolescent dyads (63). The results found that consistent with individuation-connectedness theory, mothers' responsiveness lessened their adolescents' orientation to peers, which, in turn, reduced adolescent substance use. This process was moderated by maternal values regarding adolescent alcohol use; that is, the relation of maternal responsiveness to adolescent substance use depended on the extent of maternal approval or disapproval of adolescent alcohol use. Among fathers, closer monitoring was directly associated with less adolescent substance use, with stronger effects among fathers who held more disapproving values regarding adolescent alcohol use. These findings were contrary with what was known before in the proposition of socialization theorists that parents influence peer relationships primarily through such monitoring practices as tracking adolescents' whereabouts, discussing adolescents' plans, and becoming acquainted with adolescents' friends and the parents of their friends.

Another study aimed at identifying risk and protective factors at different domains. The results showed that parent-family connectedness and perceived school connectedness were protective against substance abuse and other health risk behaviors. Furthermore, access to substances in the home was associated with use of cigarettes ($P<.001$), alcohol ($P<.001$), and marijuana ($P<.001$) among all students. On the other hand, higher parental expectations regarding school achievement were associated with lower levels of health risk behaviors (64).

Parental responsiveness and monitoring: Adolescents who have positive attitudes toward school and whose parents and peers support their education are less likely to use substances than are youth from less education-oriented environments. In general, when parents are aware of and monitor their adolescents' daily activities, adolescents are less likely to engage in problem behavior (40, 65); a key aspect of parental monitoring is knowledge of and involvement with adolescents' schoolwork (62, 66, and 67). Compared with nonusers' parents, parents of adolescents who use substances monitor their schoolwork less and have fewer rules about how they spend their time (68). Some research suggests that although adolescents' perceptions of their families are important for educational outcomes, perceptions of peers (peers' substance use, in particular) may be more strongly associated with substance use outcomes (59, 69, and 70).

Susan et al, (71) conducted a study using a sample of high school students (n = 2573) participating in a longitudinal study of substance use and other problem behaviors. The structural equation modeling indicated good model fit, χ^2 (144) = 831.69, $p < .001$, comparative fit index (CFI) = .992, root mean square error of approximation (RMSEA) = .043 (.040, .046). Family environment exerted significant indirect effects on adolescent alcohol use through peer influence, self-efficacy, and stress, and parental expectations significantly moderated all structural paths. Greater parental disapproval was associated with less involvement with friends and peers who use alcohol, less peer influence to use alcohol, greater self-efficacy for avoiding alcohol use, and lower subsequent alcohol use and related problems.

Parental strictness and supervision deter involvement in deviant behavior, and that warmth and acceptance contribute to social competence and psychological adjustment (72). Parental influences on adolescent development may be moderated by the value parents place on particular socialization outcomes. For example, research has shown

significant differences among mothers in the relation to their responsiveness to adolescent substance use. Among mothers who were less disapproving of adolescent alcohol use in certain circumstances (e.g., at family celebrations, as long as the adolescent does not drive; when parents are present), the slope was negative as predicted, with more maternal responsiveness associated with less adolescent substance use. Yet among mothers who were the most disapproving of adolescent alcohol use in every circumstance, the direction of the slope reversed, with more responsiveness tending to be associated with more substance use.

Although the pattern of these most disapproving mothers is contrary to our expectations, upon reflection, it may be consistent with the tenets of individuation-connectedness theory. Parents who are unable to make any exceptions regarding a normative behavior like adolescent alcohol use may also be unable to allow the parent-child relationship to transform in other ways that allow the adolescent opportunities to demonstrate maturity and self-direction. Yet the results for mothers' responsiveness suggest that if values are too extreme, they may backfire and encourage the behavior they intend to discourage. Regardless of the mechanisms by which parental values influence adolescent outcomes, the tacit neglect of parental values in most studies may explain inconsistent findings and the low amount of variance accounted for by parenting variables during adolescence (58, 72).

As Ginott (73) indicated, adolescents seem to have inner radar for detecting strongly held parental values, which may become an obvious target for pushing limits and demonstrating independence from parents. Parental values also influenced paternal monitoring, with stronger effects on adolescent substance use among fathers who held values more disapproving of adolescent alcohol use than among those with less disapproving values. Thus, the influence of parenting practices on adolescent behaviors

appears to be moderated by parental values. In other words, the potency of parenting practices, even those widely recognized as effective during adolescence, appears to be preempted by the values parents hold regarding how desirable or appropriate specific adolescent behaviors are deemed to be. According to Darling and Steinberg (74), "the values parents hold and the goals toward which they socialize their children are critical determinants of parenting behavior." On the contrary, current evidence suggests that parental values directly affect adolescent outcomes or moderate the efficacy of parenting practices.

In yet another study of the GSHS in Zimbabwe; parental supervision was one of the variables studied. Compared to students who always received parental supervision, students who rarely received parental supervision were more likely (AOR=1.85 [95%CI (1.19, 2.90)] to consume alcohol, and those students who sometimes received parental supervision were less likely (AOR=0.70 [95%CI (0.50, 0.98)] to consume alcohol (75). In Tanzania, Mndeme (28) found that a large proportion of the parents /caregivers failed to show an understanding towards the youths' behaviors and emotional needs. Seventy six percent (N=100) of youths from the user group reported that they lacked understanding by their female guardians, and 79% felt they lacked understanding from their male guardians; in the non-user group, these figures were 33% and 38% respectively (p=0.001). In addition, it was noted that for the drug users, friends were equally important to parents; 43% claimed friends to be important and 57% claimed parents to be important. However, there was a substantial difference in the non-user group, and 94% claimed parents to be important in their lives and only 6% claimed friends to be important.

It seems what researchers proposed in the 1980s that adolescence is not a time for parents to disengage, but rather a time to remain involved and connected and that one of

the greatest legacies parents may pass on to their children is the influence they have, through the interface of their values and practices, on their children's capacity to resist extreme peer orientation and avoid risky behaviors (76) still ring through today from research.

1.1.2.3 School factors

Motivation, school attitudes and academic achievement: Although, there are some gaps in the research linking measures of motivation and school attitudes to adolescents' involvement in substance use, youth with high levels of achievement motivation e.g., having high academic goals, such as planning to graduate from college and positive attitudes like reporting that they like and are interested in school and have high self-perceptions of academic competence and academic values are less likely to engage in substance use (47, 77, 78, 79, 80). However, some research suggests that positive attitudes toward academics are particularly protective against substance use for high-achieving students compared with low-achieving students, indicating an interactive effect of achievement (81). It is likely that it is the combination of high achievement, high motivation, and positive attitudes that protects against increases in substance use over time (47). Generally, girls' academic self perceptions are lower than boys' self-perceptions, even though girls' reports of achievement are higher (82); therefore, gender differences may exist in the association between motivational beliefs and substance use, as well.

In addition, based on decades of research, negative school experiences are known risk factors for substance use (4). In particular, students with negative school experiences (including low academic achievement, low motivation, truancy, or acting out in the classroom) are more likely than those with more positive school experiences to use

alcohol, cigarettes, and marijuana (47,83). In America, a 6 year multi-wave national longitudinal study looked at how academic achievement, attitudes and behaviors relate to the course of substance use during adolescence; they used a nationally representative sample of age 14-20(N 51, 897). Results indicated that school misbehavior and peer encouragement of misbehavior were positively associated with substance use at age 14 and with increased use over time; school bonding, school interest, school effort, academic achievement, and parental help with school were negatively associated. The protective effects of positive school attitudes and perceptions of high status connected to academics were stronger for low-achieving compared with high-achieving youth (63).

In another comparative study between South African and US youth substance use it was found that prevalence rates of past-month alcohol use, binge drinking, cigarette use, and marijuana use were significantly higher among students with poorer academic performance in both the US and South Africa. In the US, rates of lifetime illicit hard drug use were higher among students with poorer academic performance ($P < .01$) compared with students with better academic performance, whereas in South Africa, rates were higher among students with better academic performance ($P < .05$) (37).

1.1.2.4 Community factors

An important community influencing factor of substance use behavior is the perceived availability of drugs in the community. Studies have found that there is a significant association between the availability of drugs in the community and the likelihood of one using the substances. Research has shown that in places where substances are easily accessible there are higher incidences of use than in those where there is less accessibility (20, 34, 84, 85, 86).

1.2 CONCEPTUAL FRAMEWORK

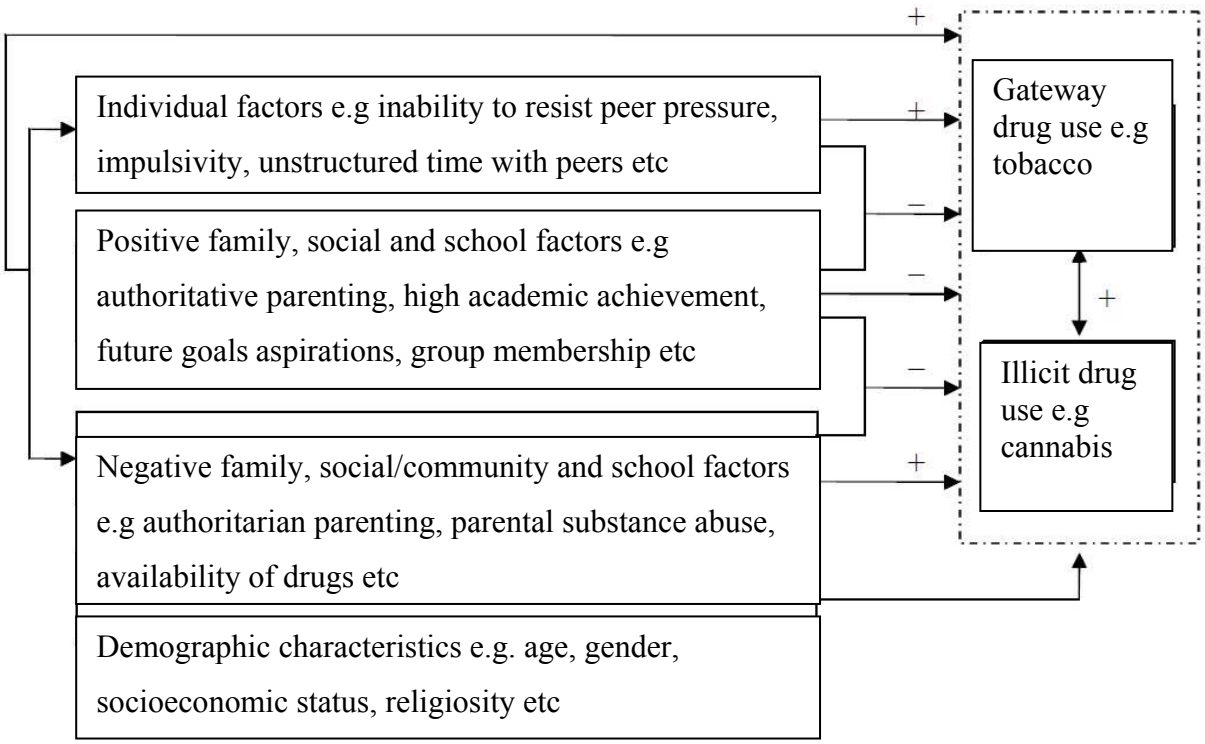


Figure1: Illustration of how different factors like individual, family, school, community and demographic characteristics interact both as risk and protection to predict youth substance use (Bronfenbrenner, 1979).

Numerous theoretical explanations for substance use among adolescents and youth have been proposed. They include the Social development model (78), Problem behavior theory (87), Family and social interaction theory (88) and Ecological theory (Risk-Protective Model (60). The different theories compliment each other and not a single among them which is superior to the others.

This study used the Ecological theory which focuses on the risk/protective theory as theoretical framework. The risk model suggests that human development is influenced by a myriad of risk factors that occur within individuals, families, peer groups, schools, and communities. We know that risk factors such as problems at home and negative peer pressure at school put a child in jeopardy. The more risk factors, the greater the danger. The protective model focuses on factors that help youths overcome even glaring disadvantages such as mental illness, parental neglect or abuse, poverty, or war. Positive influences such as good social skills or a close relationship can protect these youth from risk.

1.3 STATEMENT OF THE PROBLEM

Substance abuse among adolescents continues to be a growing concern globally and in this setting. Considerable variation in the prevalence of legal and illegal substance use among adolescents exists between countries (4); and while drug use among adolescents tends to be higher among adolescents from the more developed countries (10), lack of solid data from the less developed countries makes comparisons difficult. The data we have for the less developed countries suggests that the drug abuse problem among youth both in school and out of school is on the increase (22, 23, 28, 35, and 36). In our own setting it is known from studies among IDUs over the last decade that users started their drug use careers as early as 10 years of age by smoking cigarettes (56.2%), followed by cannabis (34.8%); alcohol (8%) and poly-drug use (1%) (7). Ross et al (8) looked in more detail at the history of drug use among IDU and found that men on average started using their first illicit drug (marijuana) aged 16, (women, 17), progressed to smoking heroin at age 20 (women, 19) and onto injecting heroin aged 25 (women, 23). Although boys generally have higher prevalence than girls, gender differences in substance use are more marked in some countries than in others.

Adolescence is a developmental period of peak risk for onset of substance use and substance-related problems and is often considered the stage of experimentation. Adolescence is a critical developmental period that involves pubertal maturation, continuing brain development, changes in social roles (e.g., initiation of dating) and contexts (e.g., transition to high school, college, and employment), and an increase in risky behavior, such as substance use. Although experimentation with alcohol and tobacco may be considered developmentally normative in some cultural and religious context, some adolescents progress to a more regular pattern of substance use and, in some cases, SUDs. Among youth who report substance-related problems, some show a developmentally limited course, whereas others experience more chronic and severe substance-related problems that persist into adulthood (2).Thus, early onset of smoking and alcohol use increases the risk of later dependence.

Alcohol use and cigarette smoking among adolescents are also strongly correlated behaviors. Adolescents who initiate smoking are much more likely to begin using alcohol at an earlier age than those who do not, and vice versa. Furthermore, both cigarette smoking and alcohol use among adolescents are known to be gateways to the use of other stronger drugs, adding further to the negative consequences of smoking and alcohol use (7, 8). However, there is some evidence that adolescents who receive support from their families, schools, and the community at large are less likely to involve themselves in substance use behavior; they also perform well in school, develop positive identities, and develop to be responsible adults in their families, society and at work (42). For that reason it is very important to know more specifically the kinds of psychosocial supports that are more relevant in this cultural context.

1.4 RATIONALE

Globally, psychosocial factors associated with drug use among adolescents and youths are well researched. In Tanzania this is an area of exploration in its infancy and in general there is a paucity of information about substance use problems among Tanzanian youth outside of Dar es Salaam where most of the studies have been carried out. Dodoma is the political capital which in the past few years has been growing rapidly both economically and population wise with a rapid increase in migration from other regions and tribes (89). Studies that have been conducted among youth in the school environment have primarily focused on identifying what drugs are being abused. One study in our setting that did explore the psychosocial factors associated with drug use was conducted among a psychiatric clinical population in Dar es Salaam by Mndeme (28). The results of that study showed the important role of parental factors and their effectiveness in positively influencing youth's substance use. This community based study aimed to further explore the role of specific psychosocial factors including the parental factors that play a major role both in the initiation and maintenance of drug use behavior among adolescents in school going youths. This information would allow for the development of more targeted culturally oriented preventive measures.

1.5 STUDY OBJECTIVES

1.5.1. Broad objective

The broad objective of the study was to determine the prevalence of substance use and psychosocial influencing factors among secondary school students in Dodoma Municipality.

1.5.2. Specific objectives

1. To determine the prevalence of substances of abuse among secondary school students in Dodoma Municipality.

2. To determine the types of substances used by secondary school students in Dodoma Municipality.

3. To investigate the psychosocial and demographic risk factors of substance use among secondary school youth in Dodoma Municipality.

4. To determine the psychosocial and demographic protective factors associated with substance use among youth in secondary schools in Dodoma.

1.6 RESEARCH QUESTIONS

1. What is the prevalence of substances of abuse among secondary school students in Dodoma Municipality?

2. What types of substances are used by secondary school students in Dodoma municipality?

3. What are the psychosocial and demographic risk factors associated with substance use among secondary school students in Dodoma Municipality?

4. What are the psychosocial and demographic protective factors related to substances use among secondary school students in Dodoma municipality?

CHAPTER TWO

2.0 RESEARCH METHODOLOGY

2.1 Study area

The study was conducted in Dodoma Municipality in Dodoma Region.

2.2 Description of Dodoma Region

Dodoma Region lies at 40 – 70 latitude South and 35 – 37 longitude East. It is a region centrally positioned in Tanzania and is bordered by four regions namely: Manyara in the North, Morogoro in the East, Iringa in the South and Singida in the West. Much of the region is a plateau rising gradually from 830 meters in Bahi Swamps to 2000 meters above sea level in the highlands north of Kondoa.

The region covers an area of 41,310 km² and has 1,698,996 inhabitants (National census August 2002). The estimated total number of households is 74,914 with an average household size of 4.3 people. It is the 12th region in size, covers about 5% of Tanzania mainland. Dodoma Urban District is the national and political capital of Tanzania, and the capital of the Dodoma region. In 1973, plans were made to move the capital to Dodoma. Tanzania's National Assembly moved there in February 1996, but many government offices remain in the former national capital, Dar es Salaam, which continues to be the commercial capital.

The region was established in 1963 consisting of three rural districts and one Township Authority. To date, Dodoma region has four rural districts and one urban district namely: Dodoma-Rural (Bahi and Chamwino), Kondoa, Mpwapwa, Kongwa and Dodoma Urban. Dodoma town center is 486 kilometers (302 mi) west of the former capital at Dar

es Salaam and 441 kilometers (274 mi) south of Arusha, the headquarters of the East African Community. It covers an area of 2,669 square kilometres (1,031 sq mi) of which 625 square kilometres (241 sq mi) are urbanized. Dodoma features a semi-arid climate with relatively warm temperatures throughout the year. The region is almost entirely dependent on agriculture and livestock production.

In the recent years, the city has been growing rapidly due to the opening of universities like the St. John's University of Tanzania and the University of Dodoma (UDOM). UDOM alone has a capacity of 40,000 students. Both universities were officially opened in 2007. This has changed the composition of the population. Dodoma is now becoming an educational and commercial city and assuming the role of the political capital not in name only.

2.3 Study population

The study comprised of secondary school students in Dodoma Municipal schools in ordinary level who were in the age range of 12-25 years. The students were attending either public or private, day or boarding but all the schools were co-educational. For easy accessibility, the sampled schools were those within 10 kilometers of the city centre.

2.4 Study design

This was a descriptive, prospective cross sectional community based study using quantitative data collection methods.

2.5 Study duration

The study was conducted from August through November 2011.

2.6 Sample size estimation

The estimated sample size N was computed using the formula below,

$$N = \frac{z^2 pq}{d^2}$$

Where;

N = Estimated Sample Size

Z = standard normal deviate, which turns out to be 1.96 on using the 95% CI.

P= proportion of youth who use substances which is estimated to be 5%

q = (1-P) = proportion of youth who do not use substances which is 95%

d= margin of error= 1.2%

Therefore; $N=1.96^2 x\ 0.05x\ 0.95/\ (0.012)^2 = 1266$

- Adjusting for non response 15% of estimated N=189
- Estimated sample size was 1455
- N was rounded to 1500

2.7 Sampling procedure and data collection

A multistage cluster sampling was used to get the representative schools and student samples. The primary sampling units were schools; therefore a list of all secondary schools in Dodoma Municipality was obtained. There were 50 secondary schools in the Municipality. Due to time and financial constraints and to ensure greater accessibility for the research team, a list of those schools which were within 10 kilometres of the city centre was prepared from the previous list. The new list consisted of 28 schools. Classes had an average of 3 streams and each stream had an average of 45 students. To meet my sample size of 1500 I needed approximately 12 schools and; therefore 12 schools were

randomly selected. Classes within each participating school were then systematically selected with equal probability sampling to get a single class from each school. All students in the selected classes with their streams were eligible to participate in the study.

There were a total of 1525 students who were eligible for the study, 24 of whom did not consent. Therefore 1501 were given questionnaires and among those 5 qestionaires were incomplete so were not included in the analysis. The final sample which was analysed was 1496, which makes a response rate of 98.1%.

2.8 Eligibility criteria

Participants were included into the study if they were:-

- Secondary School students in Dodoma municipality
- Form I-IV
- Consent for participation was obtained.

2.9 Exclusion criteria

Participants were excluded from the study if they were;

- Form V and VI students in Dodoma Municipal Secondary Schools

2.10 Data collection tools and research instruments

Data collection was done using a self administered structured questionnaire titled: The School Based Health Promotion Questionnaire (SBHPQ) that was developed from the Global School Health Survery (GSHS). This instrument was originally developed by WHO with Partners. Then each participating country was required to adapt it for use.

The Tanzanian version SBHPQ was developed in 2003 by the GSHS Coordinator with some members of the Ministries of Health and Education. The final version was translated into the national language, Kiswahili, pre-tested and used in the GSHS that

was conducted in 2006. It is a 77 item questionnaire on health related behaviors including substance abuse. For the purpose of this research the section of the SBHPQ pertaining to substance use was selected and additional questions on psychosocial and demographic factors added making a total of 84 questions.

Demographic and psycho-social measures: included participants' age, sex, school, year of study, place one has grown up, residence, person living with and religiosity. Religiosity was operationalized using measures of religious importance, attendance, and denominational affiliation, respectively. Furthermore; socio-economic proxy measures were collected which included the parents' number of years of formal education (at primary, secondary and post secondary levels of education) and occupation. Due to the complexities of assessing wealth status in low income settings, other proxy measures were included (six household assets -having a radio, a television, a refrigerator, a bicycle, a motorcycle and a car) and four household characteristics (having electricity, type of the main material of the floor of the house, main source of drinking water for household members and type of toilet facility) and a question assessing food security.

Other psychosocial measures included: academic performance in school, future expectations, attitude towards schooling, use of free time after school hours, amount of time and frequency spent with family and time spent out of home, the quality of relationship with parents/guardians, feeling understood, loved, respected, interfered with; who are the important people to them, parents knowing where they are when not at home and whom they are with, the provision of basic needs, having rules at home and punishments.

Substance use measures: Substance use measures included frequency, amount, duration, age of onset, place of use, use with significant others (siblings, father, mother and friends); and parental reaction to substance use.

Outcome measures

The outcome measures were whether one used or did not use substances in the last 30 day, last 12 months or ever.

Predictors

All the other factors as described above: demographic, parental, school and after school factors were predictors of substance use behavior.

2.11 Recruiting and training of research assistants

Two secondary school graduates were recruited and trained as research assistants for one day on the research protocol and tools.

2.12 Study pilot

The study pilot was conducted in Chamwino Secondary School which is outside the municipality. The questionaires were pretested using a random sample of 15 students. Findings from the pilot were noted. For example, some questions showed a low response rate. During the data collection and introduction in each class attention was drawn to these questions and clarified. Allocated time for a class period was 40 minutes and on average it took 20 minutes to fill the questionnaires.

2.13 Ethical issues and research clearance

Ethical clearance to conduct the study was sought from Muhimbili University and Allied Sciences Ethical Review Board. Permission to do the study was obtained from the Executive Director of Dodoma Municipality and the D.E.O for secondary schools; and the respective heads of the sampled secondary schools. Assent to participate in the study was sought from the eligible study candidates.

2.14 Consent

The participants were informed as a class about the purpose of the study and asked for their willingness to participate in the study. It was also made clear both orally and in the written consent form that, acceptance or refusal to participate in the study had no untoward consequences and that they were free not to participate in the study. They were also assured of confidentiality and the questionnaires would be kept anonymous with no participant's name, only numbers were used. They were also informed of the benefits and risks of the study though generally no risks from this study were anticipated. In addition, candidates were informed that no financial gain would be obtained by participating in the study. They were also given the address/contacts of the principal investigator as well as the contacts of the Director for Research and Publication Committee from MUHAS for communicating issues regarding the study if a need arose.
Written informed consent was also sought from all the study candidates. All the study candidates who were 18 years or above were given the consent form to read and then they were required to sign if they agreed to participate in the study. Minor in Tanzania is legally defined as 18 years of age and parental consent is required. Those candidates who were below 18 years were given consent forms to take home to their parents the week prior to onset of the study.

2.15 Data Management

All data obtained was stored by the principal investigator in a secure environment. Data entry, data cleaning and data analysis was done subsequently using SPSS for Windows Version 18.

2.16 Data analysis

Data was analysed to answer the study objectives. Then results were presented in tables, figures, and graphs in relation to the research objectives and variables. Chi squared (χ^2) tests were used to examine demographic and psychosocial factors. Frequencies and cross-tabulations for lifetime, current and recent drug use were computed. Data from the schools were combined and OR with 95% CI calculated to determine significant associations with substance use behavior. Univariately significant factors as well as factors significantly different between the respondents were included in forward step-wise logistic regression and adjusted ORs produced. A significance level of <0.05 was used.

CHAPTER THREE

3.0 RESULTS

A total of 1496 students from 12 secondary schools of Dodoma municipality responded to the questionnaires. The response rate was 98.1%. The remaining 1.9% either did not consent (n=24) or had incomplete information in questionnaires (n=5).

3.1 Socio-demographic profile of the study population

The respondents were within the 12 to 25 year age range with a mean age of 17.22 ± 1.87(2SD). The majority (44.3%) were between 18 and 19 years, female (51.5%) and Form III students (41.1%). Christians were in the majority (67.2%) and an overall majority (93.1%) considered religiosity to be very important with about half attending religious services once or more a week. Most respondents (67.5%) grew up in towns; 55.3% were currently living with their parents and 70.8% of parents were married. About five percent of respondents were found to be orphans.

Majority of fathers (58.1%) and guardians (60.5%) had secondary level education and above, whereas the majority (53.2%) of mothers had primary level education and below. Occupation wise, the parents/ gurardians tended to be informally employed (fathers 44.8%, mothers 37.8% and guardians 54.7%) and overall (91.2%) the socioeconomic status of the study population was in the middle level.

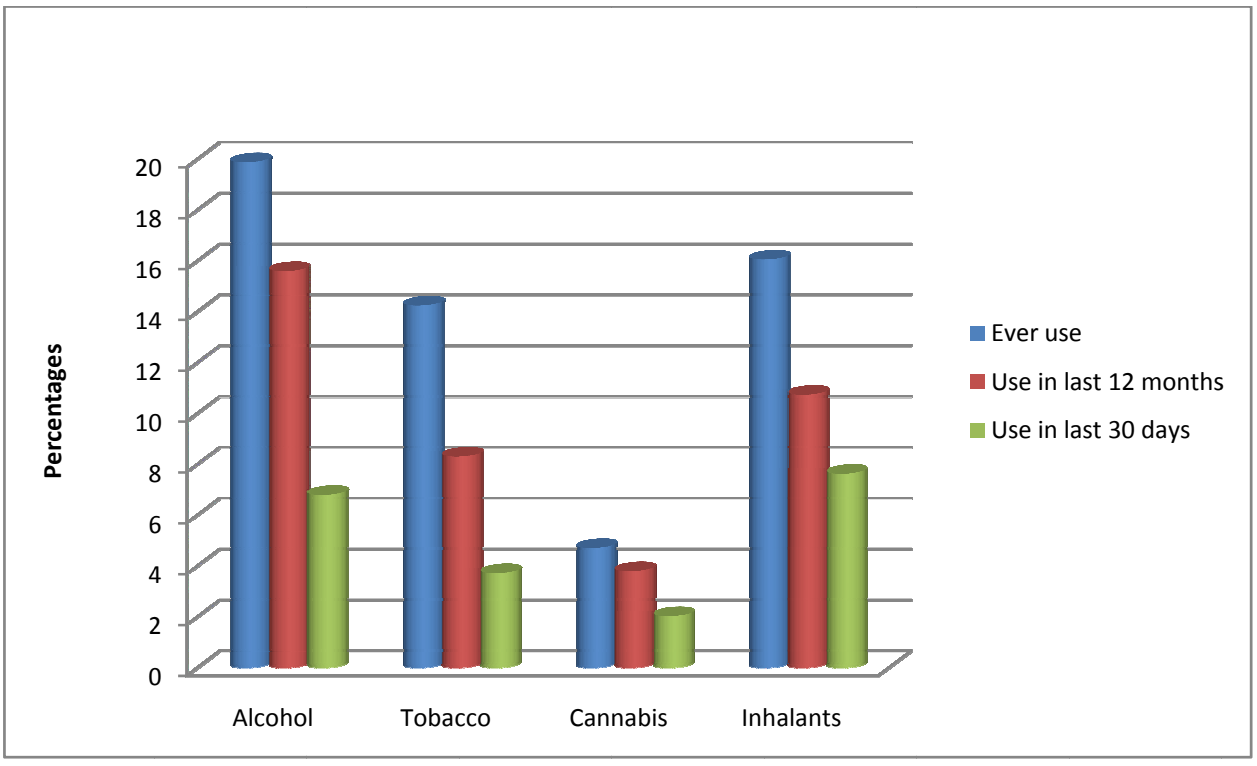
3.2 Prevalence of substance use

About fifteen percent (14.6) of the respondents were found to be currently using one or more substances. The commonest substance of abuse in the study population was inhalants 7.6%, followed by alcohol 6.8%, tobacco 3.7% and cannabis 2.0%. The other substances were used by an insignificant number of students 0.9%, (n=12) and included sedatives, khat, stimulants, heroin, cocaine and mandrax.

Among the current substance users 78.4% (n=171) were found to use a single substance and 21.6% (n=47) were polydrug users. Current users were proportionally as follows: inhalants 49.1%, alcohol 45.9%, tobacco 25.2% and cannabis 13.3%.

As illustrated in Figure 2 below differentiating between ever use, recent and current use results showed that for alcohol: 19.9 %(n=293) were ever users, 15.6 % (n=229) recent users and 6.8 % (n=100) current users. Tobacco: 14.3 % (n=211) ever users, 8.3 %(n=123) recent users and 3.7 % (n=55) current users. Cannabis: 4.7 % (n=67ever users), 3.8 % (n=54) recent users and 2.0 % (n=29) current users. Inhalants: 16.1% (n=226) ever users, 10.7% (n=151) recent users), and 7.6% (n=107) current users.

Figure 2: Prevalence of substances of abuse at different time periods

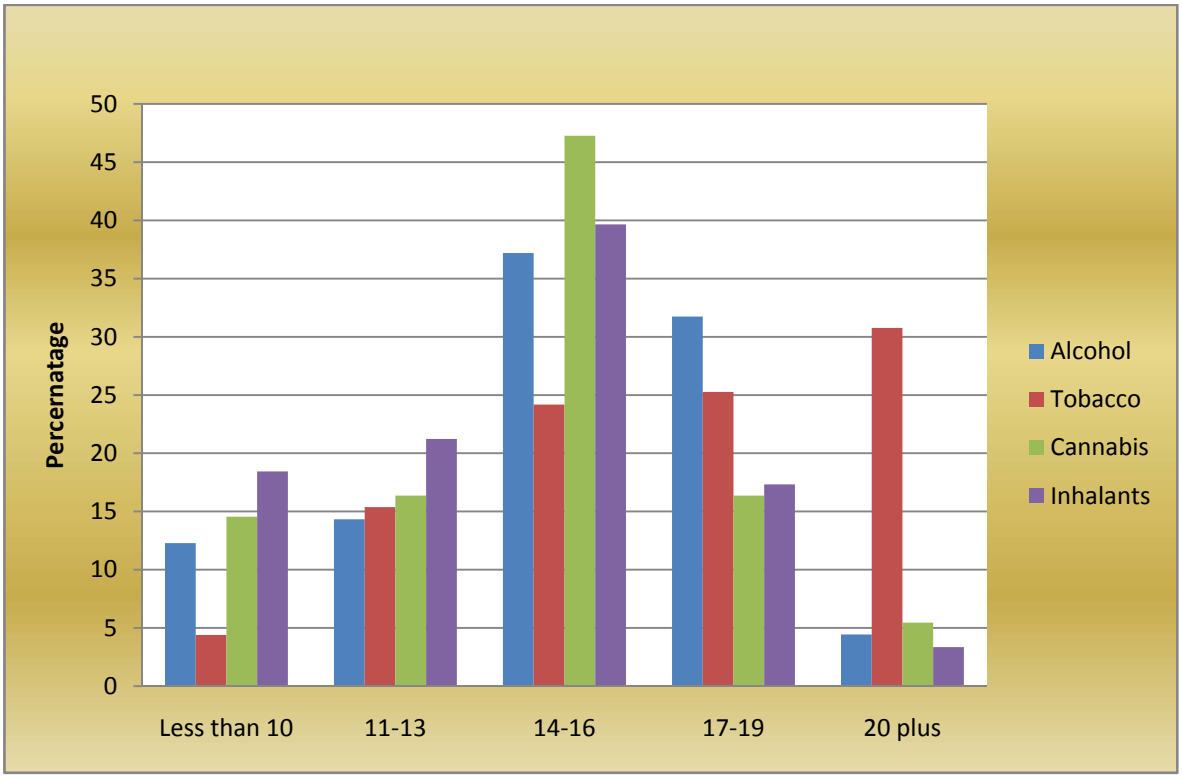


3.3The pattern of substance use

Age of onset of use for the different substances

Figure 3 illustrates that substance use initiation was as early as 10 years, peaking at 14-16 years and declining in the older age groups. Almost half (47.3%) started with cannabis, 39.7% with inhalants and 37.2% with alcohol. However, those who start with tobacco are more likely to start as late as 20 years (30.8%). For all the substances the experimenters are higher than those who used it in the previous year and those are also higher than those who used it in the previous month.

Figure 3: Ages of onset of substances use



Pattern of alcohol use

The results also revealed that a significant number of youth use alcohol frequently.Of current alcohol consumers more than half (59.0%) use it between one and five days a week while the remainder (31.0%) use it more than 20 days a month and 10.0% six to nineteen days a month. For those drinking alcohol at least once a week, the majority (42.6%) start between 14 and 16 years, 27.9% between 17 and 19 years, 14.7% between 11 and 13 years, 8.8% younger than 10 years and 5.9% start at 20 years or above. Beer was the most frequently (37.5%) used type of alcohol beverage; other types of alcohol were used once per month or less.

The majority (39.0%) drank at home or in public places (30.9%). With regard to whom they drank, the majority (25.2%) drank with friends of the same age, 20.4% alone, 19.3% with older siblings and 12.3% with older friends. In addition, almost half of the users (46.5%) buy it themselves, 38.1% are given by a casual acquaintance and 30.7% by a relative. Twenty four percent of youth (n=351) reported that their fathers use alcohol daily (10.8%) or weekly (15.5%) but not daily. Those whose mothers use it were 12.3% (n=179), elder siblings using were 14.8 % (n=216) and best friend using were 23.8% (n=334). Furthermore, sixty seven percent of youth indicated their friends were using alcohol at least once a week.

Pattern of tobacco use

For the current users, the frequency of use reported:: daily(43.2 %(n=16) , 29.7% (once a week) and 27.1% less than once a week. Of those who smoke daily, 33.3 %(n=14) started between 15 and 16 years. Majority 64.8 %(n=46) smoke between one and five sticks a week. The most frequently used mode of tobacco use is cigarettes 66 %(n=66), followed by 19.0% snuffing and 7% chewing. Seven percent of youth (n=93) admitted

that their fathers were using tobacco, 1.6% (n=22) mothers, 5.3% (n=78) elder siblings and 9.3% (n=133) their best friend was using. Furthermore, 79.6 %(n=1171) said none of their friends were using tobacco at least once a week, 14.9 %(n=220) said few, 5.1 %(n=70) said many and 0.4 %(n=6) said all were using.

Pattern of cannabis use

Frequency of cannabis use reported among those who used it in the past month was 24.1 %(n=7) used between one and five days, 48.3 %(n=14) between six and nineteen days a month and 27.6 %(n=8) on 20 days or more. And those who are currently using it, 25% use daily, 25% less than once a week and 50% every week but not daily. Most used it with friends (57.6%) and majority used it at a friend's place (30.6%). One percent of youth (n=14) reported that their fathers were using cannabis, 0.6% (n=9) mothers, 5.4% (n=77) elder siblings and 10.6% (n=150) best friend.Furthermore, 86.0% said none of their friends were using cannabis at least once a weeek, 8.3% a few, 3.5% many and 2.2% all were using.

The pattern of inhalants use

The current frequency of inhalants use was 50.0 %(n=52) who used less than once per week, 39.4 %(n=41) every week but not daily, and 10.6 %(n=11) daily. Thirty one percent of fathers (n=380) were also using, 2.4 %(n=35) of mothers, 5.4% (n=77) of elder siblings and 5.5 %(n=77) of best friends were users.

3.4 Demographic factors and substance use

Religion: Perception of religion as not being important (31.0%) was more associated with substance use compared with those who felt it was important ($p<0.01$). Being an orphan or parent divorced/separated/cohabiting was more likely to use substance compared with those youth whose parents are married or widowed ($p=0.023$) (See Table 1).

The results also show that age and sex were significantly associated with the use of specific substances. Being a male was significantly associated with use of tobacco (90.9%, $p<0.001$) and cannabis (72.4%, $p<0.01$) when compared with female counterparts 29.1% and 27.6% respectively (See Table 2). In addition, being 16-19 years was associated with more use of alcohol (77.0%, $p=0.01$) and tobacco (80.0%, $p=0.032$) respectively. (Table 3 below illustrates these findings).

It was found that ever users of alcohol by sex $p=0.002$, by age $p< 0.001$; use in 12 months by sex $p=0.001$ and by age 0.055. Ever cannabis use by age $p <0.001$ while 12 months use of cannabis by sex $p< 0.01$. Ever tobacco by sex $p <0.001$, by age $p= 0.019$ while 12 months use by sex $p<0.001$ and by age $p=0.055$.

Table 1: Association between substance use and socio-demographic characteristics

Variables	Users N=218 (%)	Non users N=1,278(%)	Total	χ^2	Pvalue
Age categories (years)					
12-13	2(20)	8 (80)	10	4.841	0.304
14-15	26(10.9)	212(89.1)	238		
16-17	93(14.0)	569(86.0)	662		
18-19	72(16.7)	359(83.3)	431		
≥20	25(16.2)	129(83.6)	154		
Sex					
Male	104(14.3)	621 (85.7)	725	0.064	0.801
Female	114(14.8)	656 (85.2)	770		
Religious affiliation					
Christian	148 (14.7)	857(85.3)	1,005	10.819	0.029
Moslem	60 (13.3)	391(86.7)	451		
African traditional/other	7(30.4)	16(69.6)	23		
None	2 (28.6)	5(71.4)	7		
Importance of religion					
Not important	10(31.3)	22(68.7)	32	15.141	0.002
Important	207(14.2)	1,248(85.8)	1,455		
Frequency of attendance					
Sometimes or never	76(16.5)	384(83.5)	460	2.028	0.154
≥ once per month	142(13.7)	894(86.3)	1,036		
Parental marital status					
Orphan	14(19.7)	57(80.3)	71	14.7048	0.023
Cohabiting	16 (24.2)	50(75.8)	66		
Married	132(13.1)	876(86.9)	1,008		
Widow/widower	13(10.7)	109(89.3)	122		
Separated/divorced	40(19.9)	161(80.1)	201		
Other	3(11.1)	24 (88.9)	27		

Table 2: Association between use of specific substances by sex

Substance use status	Sex of respondent Male N=725(%)	Female N=770 (%)	Total	χ^2	P value
Alcohol					
No	662(48.3)	709(51.7)	1,371	0.109	0.741
Yes	50(50.0)	50(50.0)	100		
Tobacco					
No	680(47.7)	745(52.3)	1,425	11.400	0.001
Yes	39(90.9)	16(29.1)	55		
Cannabis					
No	671(47.9)	729(52.1)	1400	6.820	0.009
Yes	21(72.4)	8(27.6)	29		
Inhalants					
No	663(48.9)	663(51.1)	1,296	1.355	0.244
Yes	46(43.0)	61(57.0)	107		

Table 3: Association between the use of specific substances by age

	Age categories (in years)							
Substance use status	**12-13 N=10 (%)**	**14-15 N=238 (%)**	**16-17 N=431 (%)**	**18-19 N=662(%)**	**≥20 N=154 (%)**	**Total**	**χ^2**	**P value**
Alcohol								
No	10(0.7)	226(16.5)	383(27.9)	615(44.9)	137(10.0)	1,371	13.224	0.01
Yes	0(0.0)	8(8.0)	40(40.0)	37(37.0)	15(15.0)	100		
Tobacco								
No	10(0.7)	228(16.0)	400(28.1)	640(44.9)	147(10.3)	1,425	10.562	0.032
Yes	0(0.0)	5(9.1)	26(47.3)	18(32.7)	6(10.9)	55		
Cannabis								
No	10(0.7)	223(15.9)	394(28.1)	633(45.2)	140(10.0)	1,400	2.887	0.577
Yes	0(0.0)	3(10.3)	12(4.4)	12(41.4)	2(6.9)	29		
Inhalants								
No	8(0.6)	207(16.0)	375(28.9)	576(44.4)	130(10.0)	1,296	5.236	0.264
Yes	2(1.9	16(15.0)	23(21.5)	55(51.4)	11(10.3)	107		

3.5 Psychosocial factors and substance use

Parental and peer factors

Quality of adolescent-parent relationship: The findings show that 86.4% of non users had a positive relationship with parents ($p<0.001$) compared to 13.6% of users. Almost twenty one percent **(**20.9%) of users had a negative relationship with their parents/guardians. In addition, 24.5% of users did not feel understood by their parents/guardians when compared to 13.8% who did and 86.7% of non users who felt understood ($p<0.01$).

Parental monitoring: Twenty seven percent of drug users' mothers did not know of their whereabouts and 13% knew, whereas 87% of the non users' mothers were aware of their whereabouts ($p<0.001$). Of the fathers, 23.5% of drug users' fathers did not know of their whereabouts and 11.2% knew, whereas 88.8% of the non users' fathers knew ($p<0.001$).

Furthermore, 23.4% of drug users' mothers did not know of the friends they hang out with compared to 13% whose mothers knew and 87% of the non users whose mothers also knew ($p< 0.001$). For fathers, 18.9% of drug users' fathers did not know of the friends they hanged out with as compared to 12.6% whose fathers knew and 87.4% of the non users whose fathers also knew ($P=0.030$). Almost half of the drug users spent their time with a girlfriend, boyfriend or other friends as compared to 88.3% and 87.9% who spent their time with either school mate or family ($p<0.001$). (Refer to Table 4).

Findings indicate that the factors not influential in substance abuse behavior included: In the parent/guardian context; neither being able to confide ($p=0.943$), feeling loved and

respected by (p=0.38) and negative interference (p=0.443). In addition, youths' perception of who are the important people in their lives (p=0.443), the person selecting friends for them (0=883), being punished (p=0.740) and how they view the punishment and having rules which guide them at home or being provided with basic needs (p=0.633) were also found to be not influential .

On multivariate analysis, it was found that only the quality of the emotional (bond) relationships and the understanding between the youth and the parents were independently associated with substance use (OR=1.60, p>0.006, 95% CI=1.14 - 2.24) and OR= 3.79, p> 0.024, 95% CI= 1.18 - 12.14) respectively.(See Table 8).

Perceived parental reaction to substance use

The findings indicate that parental reaction to substance use was influencial in youth substance use behavior; the stronger the disapproval the lesser the use. Over seventy percent (72.3%, n=943) of alcohol non users' parents strongly disapproved of their use as compared to 47.4 % (n=45) of youths who used (p<0.001). Likewise for cannabis, parents of 74.8 % (n=1,018) non users strongly disapproved of their use as compared to 35.7 % (n=10) youths who use drugs (p<0.001). For inhalants, parents of 75.8 % (n=974) youths who did not use drugs strongly disapproved of their use as compared to 34.9 %(n=37) youths who used drugs (p<0.001). For tobacco, there seemed to be no significant association between parental reaction and its use (p=0.069). (Refer Table 5).

Table 4: Association between parental factors and substance use

Variable	Users N=218(%)	Non users N=1277(%)	Total	χ^2	P-value
Youth relationship with parents	182(13.6)				
Positive	9(20.9)	1,161(86.4)	1,343	15.802	0.000
Negative	26(12.0)	34(79.1)	43		
Neutral		67(72.0)	93		
Youth understading by parents					
Yes	190(13.8)	1,184(86.2)	1,374	8.369	0.004
No	24(24.5)	74(75.5)	98		
Mother knowing whereabouts when youth goes out					
Yes	153(13.0)	1,027(87.0)	1,180	21.932	0.000
No	42(27.1)	113(72.9)	155		
Father knowing whereabouts when youth goes out					
Yes	49(11.2)	387(88.8)	436	14.468	0.000
No	39(23.5)	127(76.5)	166		
Mother knowing friends youth hangs out with					
Yes	146(13.0)	976(87.0)	1,122	13.311	0.000
No	41(23.4)	134(76.6)	175		
Father knowing friends youth hangs out with					
Yes	55(12.6)	380(87.4)	435	4.692	0.030
No	43(18.9)	184(81.1)	227		
Person youth spends time with					
Boyfriend/girlfriend	24(22.9)	81(77.1)	105	24.462	0.000
Family	44(12.1)	319(87.9)	363		
Friends	38(22.4)	132(77.6)	170		
School mate	81(11.7)	613(88.3)	694		
Alone	23(19.5)	95(80.5)	118		
Others	5(25.0)	15(75.0)	20		

Substance use of significant others and youth substance use

Results indicate that drug use behavior of significant others like parents, siblings or friends has an influence on the youths pattern of use. Use of alcohol and inhalants of both the parents, siblings and close friends has a very high siginificant association with whether the youth uses or not ($p<0.001$). For cannabis; it showed that siblings, friends and fathers are highly influential on the youths' use, all with p values of <0.001 but not for mothers ($p=0.675$). However, tobacco showed a totally different trend where only siblings' and friends' use had a correlation with the youths use ($p<0.001$) but not the parents ($p=0.123$ for fathers and $p=0.150$ for mothers) (See Table 6).

Table 5: Association between parental reaction to the different substances of abuse and youths' substance use

	Parental reaction to substance use							
Substance use of youth	**Approve N (%)**	**No reaction N (%)**	**Disapprove N (%)**	**Strongly disapprove N (%)**	**Not known N (%)**	**Total**	**χ^2**	**P value**
Alcohol								
No	62 (4.8)	15(1.2)	216(16.6)	943(72.3)	69(5.3)	1,305	58.9453	0.000
Yes	16(16.8)	7(7.4)	16(16.8)	45(47.4)	11(11.6)	95		
Total	78	22	232	988	80	1,400		
Tobacco								
No	51(3.6)	31(2.2)	224(16.0)	1,017(72.6)	77(5.5)	1,400	8.6935	0.069
Yes	5(9.1)	2(3.6)	13(23.6)	31(56.4)	4(7.3)	55		
Total	56	33	237	1,048	81	1,455		
Cannabis								
No	50(3.7)	35(2.6)	192(14.1)	1,018(74.8)	66(4.9)	1,361	40.7989	0.000
Yes	5(17.9)	3(10.7)	4(14.3)	10(35.7)	6(21.4)	28		
Total	55	38	196	1,028	72	1,389		
Inhalants								
No	24(1.9)	15(1.2)	187(14.6)	974(75.8)	85(6.6)	1,285	164.7640	0.000
Yes	17(16.0)	8(7.6)	15(14.2)	37(34.9)	29(27.4)	106		
Total	41	23	202	1,011	114	1,391		

Table 6: Association between substance use of significant others and youth's use

Substance use of youth	Substance use of significant others: Father No	Father Yes	Father P value	Mother No	Mother Yes	Mother P value	Siblings No	Siblings Yes	Siblings P value	Friends No	Friends Yes	Friends P value
Alcohol												
No	787(95.9)	34(4.1)	0.000	1,095(95.6)	51(4.6)	0.000	1,037(96.6)	172(3.4)	0.000	1,001(80.7)	240(19.3)	..0.000
Yes	311(89.1)	38(10.9)		144(80.5)	35(19.5)		172(80.0)	43(20.0)		108(50.5)	106(49.5)	
Total	1,098	72		1,239	86		1,209	79		1,109	346	
Tobacco												
No	1,260(96.6)	44(3.4)	0.123	1,360(96.6)	48(3.4)	0.150	1,310(97.1)	39(2.9)	0.000	1,171(93.3)	84(6.7)	0.000
Yes	87(93.5)	6(6.5)		20(90.9)	2(9.1)		66(85.7)	11(14.3)		167(77.3)	49(22.7)	
Total	1,347	50		1,380	50		1,376	50		1,338	133	
Cannabis												
No	1,110(98.1)	21(1.9)	0.000	1,282(98.1)	25(1.9)	0.675	1,089(99.1)	10(0.9)	0.000	1,074(89.5)	126(10.5)	0.000
Yes	11(78.6)	3(21.4)		9(100)	0 (0.0)		65(84.4)	12(15.6)		140(66.0)	72(34.0)	
Total	1,121	24		1,291	25		1,154	22		1,214	198	
Inhalants												
No	798(96.1)	33(3.9)	0.000	1,312(96.0)	53(4.0)	0.000	1,114(95.2)	56(4.8)	0.000	1,159(97.1)	34(2.9)	0.000
Yes	331(87.1)	49(12.9)		21(60.0)	14(40.0)		47(60.3)	31(39.7)		168(79.6)	43(20.4)	
Total	1,129	82		1,333	67		1,161	87		1,327	77	

School and extracurricular factors

This study found that youth's level of academic performance, post secondary school career goals and pattern of involvement in extracurricular activities (e.g sports, religious groups and music lessons) seemed to be highly significant in influencing substance use behavior with p values of <0.01 <0.001 and <0.001 respectively. In addition, the person the youths spend their free time with was also significant with p=0.039. Thirty nine percent of drug users had no post secondary career goals while only 13.8% said they want to continue with further education; whereas of the non users, 86.2% wanted to continue with education compared to 60.9% who did not know what they wanted to do. Twenty eight percent of drug users had academic performance below average whereas only 10.6% of users performed above average; in the non user group, 89.4% were performing above average while71.4% were performing below average.

Ninety percent of youth involved in religious groups and 55% in youth clubs were non users. In addition 90.1% of non users spent most of their time with their older siblings whereas only 9.9% of users spent with their older siblings and 25% with older friends (Table 7 illustrates these findings). Other factors like youths' attitude towards school, whether they exercise, number of hours per week they exercise, whether they exercise with their close friends, whether they spend their evenings at home or out, number of evenings they spend at home, all did not have significant associations with substance use behavior. Their respective p values were 0.490, 0.877, 0.282, 0.165 and 0.165. In multivariate analysis, students'post secondary career goals (0R=1.74, p> 0.004 and 95% CI=1.05 - 1.31); and academic performance (OR=1.20, p>0.005 and 95% CI = 1.05 - 1.37) were found to be independently associated with substance use (See Table 8).

Table 7: Association between school and after school factors with substance use

Variable	Users N=218(%)	Non users N=1,278 (%)	Total	χ^2	Pvalue
Youth's expectation after completing school					
Continue with general	160(13.8)	1004(86.2)	1,164	14.852	0.005
education	15(14.3)	90(85.7)	105		
Go to vocational/trade school	20(15.0)	113(85.0)	133		
Get a job	13(22.8)	44(77.2)	57		
Other	9(39.1)	14(60.9)	23		
Not known					
Youth's performance in studies					
Excellent	39(12.4)	276(87.6)	315	18.304	0.001
Above average	50(10.6)	422(89.4)	472		
Average	94(17.4)	445(82.6)	539		
Below average	8(28.6)	20(71.4)	28		
Not known	27(20.0)	108(80.0	135		
Youth involvement in extracurricular activities					
Not involved	44(11.9)	327(88.1)	371	24.298	0.000
Involved boys and girls clubs	38(22.9)	128(77.1)	166		
Sports	65(15.2)	362(84.8)	427		
Religious group	34(9.7)	315(90.3)	349		
Music lessons	13(19.1)	55(80.9)	68		
Other	22(22.7)	75(77.3)	97		
Person youth spends time out with					
Never away from home	75(12.9)	508(87.1)	583	14.741	0.039
Younger friends	61(15.4)	336(86.4)	397		
Older friends	17(25.0)	51(75.0)	68		
Older siblings	13(9.9)	118(90.1)	131		
Alone	13(13.3)	85(86.7)	98		
Neighbors	8(17.8)	37(82.2)	45		
No one in particular	21(22.3)	73(77.7)	94		
Other	6(15.8)	32(84.2)	38		

Table 8: Logistic regression of significant predictors of substance use among youth

Variable	OR	SE	χ^2	P value	95% CI	
					Lower limit	Upper limit
Relationship with parents	1.60	0.28	2.72	>0.006	1.14	2.25
Understanding by parents	3.79	2.25	2.25	>0.024	1.19	12.14
Future motivation	1.17	0.07	2.91	>0.004	1.05	1.31
Performance in class	1.20	0.08	2.79	>0.005	1.06	1.37

CHAPTER FOUR

4.0 DISCUSSION

This study aimed at determining the magnitude of the drug use problem; and demographic and psychosocial factors associated with it. An outline of the discussion is as follows: the socio-demographic profile of the study population, prevalence of substance use, factors associated with substance use which include demographic, parental and peer; and school and after school factors**.**

4.1 Socio-demographic profile of the study population

An unexpected finding was that 10.3% of the sampled population was 20 years old and above (age range 12 to 25 years and mean age 17.22 ± 1.87(2SD). The expected age to complete Form IV is approximately 19 years. One possible reason is that more and more students repeat Form III and IV as a way of raising their marks sufficient for admission into high school.

In addition, the number of females was slightly higher (51.5%) than that of males. This is also an important observation as it reflects the changing enrollement and cultural patterns that increasingly promote females formal education. Of note is the relatively higher educational standards of the female study population (51.5%) attained secondary level compared to their mothers of whom only 25.2% had attained secodary education.

Occupation wise, the majority of parents/guardians were informally employed but with middle level socioeconomic status (91.2%). Dodoma has been the political capital and seat of Parliament for 20 years. This changed the profile of the city and increased the pattern of employment opportunities with a greater demand for supporting services (accommodation and seasonal employment). The recent shift of major educational institutions has further increased the opportunities for informal supporting service employment that allow for a middle level of socioeconomic status.

4.2 Prevalence of substance use

The overall prevalence of current substance use is 14.6 %. Prevalence of specific substances is 7.6% inhalants, 6.8% alcohol, tobacco 3.7%, cannabis 2.0% and the others 0.9%. The findings are in keeping with the study in Uganda by Nabunya et al (15) who found that the rates of the illegal substances like cocaine, opiates and sedatives were low while that of inhalants was high i.e 0.3 % of youth were current abusers of cannabis, 5.5% of inhalants, 2.0% of opiates, 1.2% of cocaine and 2.5% of hypnosedatives. The high prevalence of ever used alcohol in this study (19.9%) is also consistent with Nabunya et al (15) among school going adolescents in Uganda which showed that 18% of adolescents had ever drank alcohol (17). In addition, this study found a higher rate of alcohol use in the last 12 months (15.6 %) as compared to 9.0% found by Kabiru et al (12) among four SSA countries of Burkina Faso, Ghana, Malawi, and Uganda.

Furthermore, the current prevelance rates of substances are consistent with the study by Ndetei et al in Kenya (18) among secondary school students which found the prevalence rates of: 5.2%, for alcohol, 3.8% tobacco, 3.2% khat and 1.7% bhang. Although in this study the rates were a bit higher for alcohol 6.8% as compared to 5.2% and lower for khat (only 0.2% compared to 3.2%). The low prevalence of khat in this study compared to that by Ndetei could be explained by the geographical location and less availability of the drug in Dodoma whereas in Kenya which is near Somalia it is more available. The high prevalence of alcohol use among youth could be explained partly by its availability and it being legal; and it could also be that the alcohol policy is poorly implemented making it accessible even to the under age. Another reason could be the fact that in the Tanzanian/African context alcohol is ritually prescribed for different social cultural events.

It is surprising that inhalants are the most prevalent in this study. It has also been high in other studies, even those which were done some 20 years ago such as that by Kazaura et al (26) which showed it was as high as 5.9% in Dar es Salaam schools. This can partly be explained by the fact that inhalants are legal substances and they are also relatively more available since they are used domestically e.g kerosene, nail polish, paints etc. The prevalence of cannabis was low when compared to other studies among similar school populations (29). It could either be the true prevalence or underreporting due to its perceived social unacceptability, prohibition in schools and stigma associated with its use in the society. This can also be reflected in the comparable parental reaction to the different substances of abuse e.g there was no significant association between parental reaction and youths tobacco use ($p=0.069$) whereas it was highly significant with cannabis use ($p<0.001$).The prevalence of current tobacco use in this study was however similar to that by Kaduri (35) which was found to be 3.4%. In addition, the onset of cigarette smoking in this study appears to be at a late age of 20 and above which is at a variance with other studies. Msami's study (7) on IDUs showed that drug use started as early as 10 years by smoking cigarettes (56.2%), followed by cannabis (34.8%); alcohol (8%) and poly-drug use (1%).

The low prevalence (0.9%) of other illegal substances is probably as explained in earlier studies of drug use in the 1990s like that by Mrango (20) and Kaali (21) which implied that substance use is influenced by the degree of urbanization of the school environment. A study carried out in Same, a small district administrative town, revealed absence of cannabis, heroin and cocaine use (20) but a study carried out within a year in Arusha, a large regional administrative municipality revealed use of cannabis was 2%, heroin (0.5%) and cocaine (0.7%) (21). Comparably, in 2003 Mndeme (28) found that among youth in a clinical setting in Dar es Salaam the prevalences of heroin to be (6%), cocaine (1%)

and khat (1%). However, the prevalences in this study are lower probably because it was a non clinical, school going population. It is known that substance use is more prevalent among the high risk youth like the street youth and the poor. Most students reported that they either did not know the drugs or had never used them. This can be viewed both as a risk and protection because Dodoma is growing rapidly as a city and it is very central therefore sooner or later there is going to be exposure of the drugs. Without knowledge of drugs of abuse youth are likely to be more vulnerable to their use.

4.3 Demographic factors and substance use among youth

The findings suggest that being 16-19 years was associated with more use of alcohol (77.0%, p=0.01) and tobacco (80.0%), p=0.032) respectively. This concurs with Bauman et al (3) who found that between 80-90% of youth who use drugs are below the age of 18 years. The findings also show that tobacco and cannabis are used more by males with p<0.001 and <0.01 respectively. The results are consistent with Pricilla et al (37) who found in both the US (*P*<.01) and South Africa (*P*<.01) prevalence rates of past-month marijuana and cigarette use (*P*<.01) in South Africa were significantly higher among males than among females. In Tanzania, Kaduri (35) also found males were significantly more likely to have ever smoked a cigarette (16.1%) than females (4.9%); and more likely to have experimented. On the contrary, in this study gender had no association with alcohol and inhalants use compares with a study in in Sothern Brazil (38). This is contrary to what was found in the 2003 World Health Survey among adolescents in Burkina Faso, Ghana and Malawi and South Africathat the proportion of alcohol use was higher among males than females (12, 37) though the opposite pattern was observed in the US where the prevalence rates of past-month alcohol use were significantly higher among female students than among male students (*P*<.05).

The slightly higher use of substances by Christians (14.7%) when compared to Muslims (13.0%) could be due to the fact that social drinking is allowed in Chiristianity. The findings also show that the perception of religion as important (irrespective of affiliation) was highly associated with substance use ($p<0.01$) but not the frequency of attendance $p=0.154$. In general the findings in this study are consistent with what is already known from previous studies (1, 41, 42, and 43) which suggest that young people who are more religiously/spititually oriented and for whom religion is important are less likely to use drugs than their less religiously engaged counterparts.

4.4 Pyschosocial factors and substance use among youth

Parental and peer factors

The results indicate that the quality of parent youth relationship and feeling understood were the most important factors associated with substance use behavior in this study population, $p<0.001$ and <0.01 respectively. In addition, parental monitoring was also important but the other parental factors did not seem to have an association with youth substance use. These findings are consistent with the study by Mndeme (28) in Tanzania. Researchers have theorized that parents can both indirectly and directly influence the quality of peer relationships of their children. Indirect influences of parents include processes that are not explicitly aimed at shaping adolescent- peer relationships such as connection in parent-adolescent relationship (53, 54, 55, 56) parental support (57) and parenting styles (e.g., authoritative, permissive) (58, 59). Direct influences are parental practices and beliefs that are explicitly intended to manage their children's peer relationships, such as parental monitoring.

Schulenberg et al (63) found that consistent with individuation-connectedness theory, mothers' responsiveness lessened their adolescents' orientation to peers, which, in turn, reduced adolescent substance use. This process was moderated by maternal values

regarding adolescent alcohol use; that is, the relation of maternal responsiveness to adolescent substance use depended on the extent of maternal approval or disapproval of adolescent alcohol use. Among fathers, closer monitoring was directly associated with less adolescent substance use, with stronger effects among fathers who held more disapproving values regarding adolescent alcohol use.

In 2005, Susan et al (71) conducted a longitudinal study among high school students on substance use and other problem behaviors. She found that family environment exerted significant indirect effects on adolescent alcohol use through peer influence, self-efficacy, and stress, and parental expectations significantly moderated all structural paths. Greater parental disapproval was associated with less involvement with friends and peers who use alcohol.

According to Darling and Steinberg (74) *"the values parents hold and the goals toward which they socialize their children are critical determinants of parenting behavior."* On the contrary, current evidence suggests that parental values directly affect adolescent outcomes or moderate the efficacy of parenting practices. This was further tested by Kristjánsson who conducted a study to investigate factors in the social environment of Icelandic adolescents that contribute to the likelihood of cigarette smoking and alcohol use initiation and progression. The results suggested that multiple social factors are related to smoking behaviors among adolescents, including alcohol use; but of all factors considered, peer smoking was by far the strongest predictor of occasional- and daily smoking. Perceived friends attitude to smoking was also found to be important and so was perceived parental reactions to smoking. In addition, in further testing the relationship between parental and peer social support, parental and peer use, and

smoking and alcohol use. Results suggested that perceived parental reactions and peer respect for use are important variables in addition to peer use (52).

This study also confirmed the notion above that parental reaction has a strong influence on substance use (for all the other substances with $p<0.001$) with the exception of tobacco ($p=0.069$); but it could be due to the small numbers compared and not a real lack of significance. The trend shows that if the parents approve of use or have no reaction about youths using substances a significant percentage of youths are using than not. In addition, if the parents strongly disapprove of use then there are significantly less youths using than not. Surpisingly too, for other substances the trend shows that for those youths who did not know their parents' reactions, more of them were using substances than not.

Together with the findings from Kristjánsson et al,considerable research has also shown that adolescents who use substances are more likely to have friends who also use substances (40), reflecting both selection and socialization effects (39,69,80). In addition, findings based on growth modeling analyses indicate that adolescents who perceive that peers and parents are using fewer substances and that their parents monitor their activities are less likely to increase their own substance use over time (48, 49, 50, and 51).

In this study, the results show that for example the use of alcohol and inhalants of both the parents,siblings and close friends has a very high siginificant association with use of the youths ($p<0.001$). This is explained partly by the role modeling, genetics and peer influence. For cannabis; it showed that siblings, friends and fathers are highly influential to the youths' use, all with $p<0.001$ but not for mothers ($p=0.675$). However, tobacco

showed a totally different picture where only siblings and friends had a correlation with the youths using tobacco ($p<0.001$) but not the parents ($p=0.123$ for fathers and $p=0.150$ for mothers).These findings concur with those by Kristjánsson et al (52) where peer use of tobacco was the most important factor.

This study further found that the person the youth spends most of the time with was significant. It was found that spending time with family and schoolmates was protective against substance use whereas spending time with either boyfriend, girlfriend or just friends seemed to increase the risk of substance use ($p<0.001$). This implies that those youth who spend time with their schoolmates would more likely be interested in school and probably has academic related friendship and hence that protects them from substance use as discussed in the school factors.

Furthermore, parental marital status has been found to influence youths' substance use. Parents being divorced/separated/cohabiting were associated with their children using substances ($p<0.01$).This is similar to findings by Mndeme (28) which showed that among youth aged 17 to 25 attending psychiatric unit at the National Referral Hospital parental separation and/or divorce had a positive correlation with substance use (53% of users compared to 24% non users ($p<0.001$). On the contrary, a study among Icelandic students by Kristjánsson (52) showed that an increase in probability of smoking and alcohol use among adolescents that have experienced parental divorce or separation does not need to be a fact; although in general, a wide body of literature suggests that separated and divorced families seem to have more negative outcomes than do intact families.

School factors

Research has found a correlation between motivation and school attitudes and adolescents' involvement in substance use. Youth with high levels of achievement motivation e.g. having high academic goals, such as planning to graduate from college and positive attitudes like reporting that they like and are interested in school and have high self-perceptions of academic competence and academic values are less likely to engage in substance use (47, 77, 78, 79, and 80). This study has found similar results with what is already known. The association between youth's academic performance ($p<0.001$) and post secondary career goals ($p< 0.01$) were statistically significant. It was found that 39.1% of drug users did not have post secondary career goals while only 13.8% wanted to continue with further general education; furthermore, 28.0% of drug users had performance below average whereas only 10.6% performed above average. Comparably, of the non users, 86.2% wanted to continue with education while 60.9% did not have any post secondary career goals; and 89.4% were performing above average whereas 71.4%were below average.

What we observed in this study has a very solid theoretical basis because we know from theories which explain human behavior that behaviors are influenced by motivation. If a youth is not motivated enough to even know what they want to do in the future then they will not work hard to achieve anything.This indirectly would increase their risk of substance use because they do not have any motivations and goals to achieve in life hence they may as well just use substances.

In addition, research has also shown that adolescents who have positive attitudes toward school and whose parents and peers support their education are less likely to use substances than are youth from less education-oriented environments. In general, when parents are aware of and monitor their adolescents' daily activities, adolescents are less

likely to engage in problem behavior (40, 65); a key aspect of parental monitoring is knowledge of and involvement with adolescents' schoolwork (62, 66, and 67). Compared with nonusers' parents, parents of adolescents who use substances monitor their schoolwork less and have fewer rules about how they spend their time (68). Though this study did not look into the relationship between parental monitoring of youths' school work and substance use, it looked into whether having rules at home or not and; how youth spend their time influenced substance use. However, these did not seem to be influencing youths substance use (p=0.318).

Contrary to findings in this study is a comparative study between South African and US youth substance use. It found that prevalence rates of past-month alcohol use, binge drinking, cigarette use, and marijuana use were significantly higher among students with poorer academic performance in both the US and South Africa. In the US, rates of lifetime illicit hard drug use were higher among students with poorer academic performance ($P < .01$) compared with students with better academic performance, whereas in South Africa, rates were higher among students with better academic performance ($P < .05$)(37). Another study which had similar findings with the US and the South African study (63) showed that the protective effects of positive school attitudes and perceptions of high status connected to academics were stronger for low-achieving compared with high-achieving youth. This study did not assess that association.

In addition, the findings also showed a significant association between the person the youths spend their time out with and their substance use (p=0.039). This can be explained by the peer pressure factors of substance use. It was found that 25.0% of users spent most of their time out with older friends as compared to 9.9% who spent with their

older siblings and 90.1% of non users who spent time with their older siblings. This shows the protective effect of older siblings in their younger siblings substance use. It may be due to the guidance they give and the responsibility which are a natural protective factor they have towards a younger sib. However, it also shows that spending time out with older friends increases the risk of substance use; it could partlybe that they manipulate the younger friends' behavior and hence influence them negatively in substance use.

On the other hand, the other factors like the youth's liking of school, whether they exercise and the number of hours per week they use in exercises, whether they exercise with their close friends, whether they spend their evenings at home or out and the number of evenings they spend at home all did not have significant associations with substance use behavior. Their respective p values were 0.490, 0.877, 0.282, 0.165 and 0.165.

It is known that constructive or unconstructive use of youth time can influence substance use behavior. This is especially true with regard to the negative impact of the unstructured activities engaged in by youth. On the contrary, time spent on constructive after school activities like involving oneself in sports, religious groups, and musical lessons negatively correlate with substance use behavior (42, 43, and 85). This study also showed consistent findings with previous studies because there were statistically significant results between those who were involved and those who were not involved in extracurricular activities ($p<0.001$) although the unstructured activities were not studied here. It was found that involvement in religious groups (9.7%) was assocciated with lesser use as compared to 45.0% who were either involved in boys and girls clubs or other groups; therefore it can be considered a protective factor because of the non users,majority(90.3%) were those who involved themselves in religious groups.

4.5 Study limitations

The following are some limitations from my study:-

- Due to the limitation of time and funds, the study used a secondary school based sample so it excluded the high risk youth for example; street kids, the homeless, poor unemployed school drop outs, hence the findings might not be generalizable to all youth in Dodoma Municipality.

- Self reporting might have influenced the outcome measures due to the fact that some youth might have decided to under report or over report their drug use depending on perceived social acceptability of drugs.

- In addition, there could be recall bias because some information neccessitiated the participants to recall events of the past in which case they might not be that accurate in recalling hence give unreliable information.

- Another limitation is the possibility of response bias because those youths who are drug users are more likely to have poor school attendance hence I might have missed them during my data collection hence affecting the quality of my study findings.

CHAPTER FIVE

5.0 CONCLUSION

From this study it can be concluded that substance abuse among the secondary schools system continues to be a significant problem and effective interventions seem to elude us. Inhalants, alcohol, tobacco and cannabis have been found to be the most commonly used. In addition, the pattern of their use indicates serious long term consequences if effective intervention are not developed. It is also evident that substance use starts at a relatively early age, at 10 years probably when children are in their Standard IV-V in Primary Schools; then it peaks at 14 to 16 years when they are in Form I-III in Secondary Schools and thereafter declines with age.

It can also be concluded that availability of drugs, legality and cost are not the only factors associated with drug use behavior but a host of other demographic and psychosocial factors. Age, gender, religiosity, parental marital status, youth relationship and understanding with parents, parental monitoring and values regarding substance use, significant others' substance use, the person the youth spends most time with generally; and when not at home, their involvement in extracurricular activities, academic performance and post secondary career goals were found to be significantly associated with substance use. In addition, youths' academic performance; post secondary career goals, relationship and understanding with parent were independently associated with substance use and need to be considered in strategies to address the drug use problem among youth.

These findings further confirm the importance of the family integrity as a primary unit in shaping children's behaviours, substance use being one of them. This integrity is in terms of parental values and monitoring practices, bonding and understanding their children. Furthermore, the school is another important behaviour change agent to target

for substance use intervention as evidenced by findings both in previous researches but also in this study in that the youth's academic performance and post secondary career goals correlated with substance use.

5.1 RECOMMENDATIONS

1. **Parental programs:** The findings have indicated that parental factors play a major and foremost role in influencing youths' substance use, both positively and negatively. It is recommended that programs that enhance parenting skills be developed appropriate for this cultural context as a way of addressing the substance use problem at its core.

2. **Establishemnt of awareness raising school programs on substance use in Dodoma Municipality:** It is recommended that an educational package on substance use in general but with special emphasis on the injection drugs, of which students are not aware of.

3. **Peer to peer educational programs for the high risk youths in the community**: The findings also show that friends have a very high influence on youths substance use. Apart from starting school programs on substance use, there is a need to extend them to the high risk youths who are in the community and it is known from the literature that their use would be even higher than what was found in the schools.

4. **Adding substance use topic in the primary school curricular:** The results have revealed that substance use starts as early as mid primary school which calls

for an early intervention. It is recommended that the MoHSW in collaboration with the Ministry of Education develop curricular for primary schools to address substance use problems and among others address the school factors and their role in protecting youth from substance use.

5. **Effective implementation of laws, regulations and policies on substance use**: The high prevalence of the legal substances also partly implies that the laws, regulations and policies on substance use are not effectively implemented. The government through the Ministries of Home Affairs and MoHSW through the Non Communicable Diseases and Drug Addiction Section should work towards making these policies implementable.

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APPENDICES

ENGLISH VERSION QUESTIONNAIRE

THE SCHOOL BASED HEALTH PROMOTION QUESTIONNAIRE

Study on prevalence of substance use and psychosocial influencing factors among secondary school students in Dodoma Municipality.

The study questionnaire

I wish to thank you for your agreeing to participate in this research exercise. These questions are meant to assist in the research on students' substance use and related psychosocial factors. In order for the research to bear fruitful results, it is important that you read the questions carefully and answer honestly. Your answers to these questions will be kept confidential and that is why we don't ask your name. Our experience has shown that many people enjoy answering these questions and it is my hope that you will also enjoy this exercise. Please read the following explanation carefully before you embark on answering these questions.

Explanation on how to tackle the questions:

This is not a test and there is no right or wrong answer, but please answer carefully. For each question pick the answer that fits you the best and put an X inside the box opposite the answer. Pick only one answer for each question. Look at the example below:

Have you drunk water during the last 30 days?

[ ] A. No [ ] B.Yes, on 1 - 5 days[ ] C.Yes, on 6 - 9 days [X] D.Yes, on 20 or more days

The answer chosen was "D" indicating that the person who had answered the question had drunk water on 20 or more days during the previous 30 days.

If you do not know the answer to a question, or if you feel that you cannot answer the question honestly, leave the question blank. Complete as many questions as you can.

I: GENERAL INFORMATION

Date of interview:.....

Study serial No:.....

Name of interviewer: .....

II. DEMOGRAPHIC DATA

1. Are you a male or female?

[ ] a. Male

[ ] b. Female

2. What is your current age in years?.....

3. What is the name of your school?.....

4. What form are you in now?

[ ] a. form one

[ ] b. form two

[ ] c. form three

[ ] d. form four

5. Where have you grown up?

[ ] a. City or municipality

[ ] b. Town or district headquarters

[ ] c. Village or countryside

6. Where do you currently live?

[ ] a. at home

[ ] b. boarding school

[ ] c. hostel

7. If you currently reside at home, whom do you live with?

[ ] a. father alone

[ ] b. mother alone

[ ] c. both parents

[ ] d. parent(s) and sibling(s)

[ ] e. parent(s) and other relative(s)

[ ] f. parent(s), siblings and other relative(s)

[ ] g. The other person I live with is (mention).....

8. What is your parents' marital status?

[ ] a. I do not have parents
[ ] b. Single
[ ] c. Married
[ ] d. Widowed
[ ] e. Separated
[ ] f. Divorced
[ ] g. Other specify e.g. remarried, multiple spouses etc

9. What education has your father attained?

[ ] a. I do not have a father

[ ] b. No education

[ ] c. Adult education

[ ] d. Moslem religious education

[ ] e. Primary education

[ ] f. Secondary education

[ ] g. Higher education but not University education

[ ] h. University education

[ ] i. I do not know

10. What education has your mother attained?

[ ] a. I do not have a mother

[ ] b. no education

[ ] c Adult education

[ ] d. Moslem religious education

[ ] e. Primary education

[ ] f. Secondary education

[ ] g. Higher education but not University education

[ ] h. University education

[ ] i. I do know

11. If you do not live with your parents, what is the education level of the person you live with?

[ ] a. No education

[ ] b. Adult education

[ ] c. Moslem religious education

[ ] d. Primary education

[ ] e. Secondary education

[ ] f. Higher education but not University education

[ ] g. University education

[ ] h. I do not know

12. What is your father's job?

[ ] a. I do not have a father

[ ] b. Peasant farmer

[ ] c. Teacher

[ ] d. Artisan

[ ] e. Clerk

[ ] f. Accountant

[ ] g. Businessman/trader

[ ] h. Factory worker

[ ] i. Security guard

[ ] j. Other job, please mention.....

[ ] k. He is unemployed

[ ] l. I do not know what he does

13. What is your mother's job?

[ ] a. I do not have a mother

[ ] b. House wife

[ ] c. Peasant farmer

[ ] d. Teacher

[ ] e. Clerk/secretary

[ ] f. Businesswoman/trader

[ ] g. Nurse

[ ] h. Domestic worker

[ ] i. Other specify,…….

[ ] j. She is unemployed

[ ] k. I do not know

14. If you do not live with your parents, what job does the person you live with do?

[ ] a. Peasant farmer

[ ] b. Teacher

[ ] c. Artisan

[ ] d. Clerk/secretary

[ ] e. Accountant

[ ] f. Businessperson/trader

[ ] g. Nurse

[ ] h. Other job please specify.....

[ ] i. He/she is unemployed

[ ] j. I do not know

15.Does your household have

i. Electricity? Yes...../ No.....

ii. A radio? Yes...../ No.....

iii. A television? Yes...../ No.....

iv. A refrigirator? Yes...../ No.....

16.Does any member of you household own

i. A bicycle? Yes...../ No.....

ii. A motorcycle? Yes...../ No.....

iii. A car? Yes...../ No.....

17. Does your household have enough food to eat, or do you sometimes or frequently have not enough food to eat?

[ ] a. Always enough

[ ] b. Sometimes not enough

[ ] c. Frequently not enough

[ ] d. Always not enough

[ ] e. I do not know

18. What is the main source of drinking water for members of your household?

[ ] a. Piped water into house/yard/plot

[ ] b. Public/private tap water

[ ] c. Well water in your residence/yard/plot

[ ] d. Public/private well

[ ] e. Spring water

[ ] f. River/pond or dam water

[ ] g. Rainwater

19.What kind of toilet facility does your household have?

[ ] a. Own flush toilet

[ ] b. Shared flush toilet

[ ] c. Pit latrine that is ventilated

[ ] d. Traditional pit latrine

[ ] e. no facility

20. Could you describe the main material of the floor of your home?

[ ] a. Natural earth floor

[ ] b. Rudimentary floor with wooden planks

[ ] c. Finished floor with cement screed

[ ] d. Finished floor with ceremaic tiles

[ ] e.Finished floor with parquet/polished wood

21. What is your religious affiliation?

[ ] a. none

[ ] b. Traditional

[ ] c. Moslem

[ ] d. Christian

[ ] e. Other, specify…….

22. How important is religion/spirituality for you?

[ ] a. Not at all important

[ ] b. Somewhat important

[ ] c. important

[ ] d. very important

23. How often do you attend religious services?

[ ] a. Never

[ ] b. sometimes

[ ] c. About oncea month or more

[ ] d. about once a week or more

24. What do you think you will be doing when you finish school?

[ ] a. I will continue with general education

[ ] b. I will go to trade school, vocational or courses

[ ] c. I will get a job

[ ] d. I will be a peasant farmer

[ ] e. I will be unemployed

[ ] f. Other (specify).....

[ ] g. I do not know

25. In your opinion what do you think your class teacher thinks about your school performance compared to your classmates?

[ ] a. Excellent

[ ] b. Above average

[ ] c. Average

[ ] d. Below average

[ ] e. I do not know

26. How do you think about school at present?

[ ] a. I like school very much

[ ] b. I like school a bit

[ ] c. I do not like it very much

[ ] d. I do not like it at all

QUESTIONS RELATING TO EXTRACURRICULAR ACTIVITIES

27. Are you involved in any clubs, sports or classes outside of school?

[ ] a. I am not involved

[ ] b. Boys and girls clubs

[ ] c. Football, netball, basketball

[ ] d. religious group

[ ] e. Music lessons

[ ] f. Other, mention…….

28. After school hours, how many hours per week do you usually exercise in your free time so much that you get out of breath or sweat?

[ ] a. I do not exercise

[ ] b. about 1/2 hour

[ ] c. About 1 hour

[ ] d. About 2 to 3 hours

[ ] e. About 4 to 6 hours

[ ] f. 7 hours or more

29. Do you do these activities with your closest friends?

[ ] a. Yes

[ ] b. No

30. How many evenings in a week do you spend at home with your family?

[ ] a. I do not stay at home with my family in the evenings

[ ] b. One evening

[ ] c. Two evenings

[ ] d. Three evenings

[ ] e. Four evenings

[ ] f. Five evenings

[ ] g. Six evenings

[ ] h. Seven evenings

31. When you spend the evenings away from your family, who do you mostly spend it with?

[ ] a. Friends of my own age or younger

[ ] b. Friends who are older than I am

[ ] c. Older sister or brother

[ ] d. Alone

[ ] e. Neighbor family

[ ] f. No one in particular

[ ] g. Others specify.....

[ ] h. I am never away from home

QUESTIONS RELATING TO ADOLESCENT-PARENT RELATIONSHIP

32. How do you rate your relationship with your parents/guardian?
[ ] a. Very positive
[ ] b. Positive
[ ] c. Negative
[ ] d. Neutral

33. Are you able to confide in your parents/guardian?
[ ] a. Yes
[ ] b. No

34. Do you feel your parents/guardian understand you?
[ ] a. Yes
[ ] b. No

35. Do you feel loved and respected by your parents/guardian?
[ ] a. Yes
[ ] b. No

36. Do you feel your parents/guardian interfere in your life?
[ ] a. Yes
[ ] b. No

37. Who are the most important people in your life?
[ ] a. Parents/guardian
[ ] b. Friends
[ ] c. Others specify-----

38. Who select friends for you?
[ ] a. Parents/guardian
[ ] b. Self

39. Are you happy about this method of selection?
[ ] a. Yes
[ ] b. No

40. With whom do you spend most of your time?
[ ] a. Spouse
[ ] b. Family
[ ] c. Friends
[ ] d. School mate
[ ] e. Alone
[ ] f. Others specify-------

41. When you go out, are both of your parents/guardian aware of you where about?

a. Mother/female guardian aware	b. Father/male guardian aware
[ ] Yes	[ ] Yes
[ ] No	[ ] No

42. Do your parents/guardian know your friends you hang around with?

a. Mother/guardian	b. Father/guardian
[ ] Yes	[ ] Yes
[ ] No	[ ] No

43. Did your parents/guardian punish you at any time in the last 5 years?
[ ] a. Hitting you
[ ] b. Not giving you permission to do what you want
[ ] c. Arguing with you constantly
[ ] d. Criticizing you
[ ] e. Others specify.

44. How did you view this punishment?
[ ] a. Very negative
[ ] b. Negative
[ ] c. Neutral
[ ] d. Positive

45. Did you have specific rules at home that you had to follow?
[ ] a. not late outdoor
[ ] b. not to go out without parental permission
[ ] c. With who you could go out with
[ ] d. Others specify.

46. Does your family help you adequately with the provision of:
[ ] a. Shelter
[ ] b. Clothing
[ ] c. Education

QUESTIONS RELATING TO YOUR TOBACCO USE

47. (i**)** Have you ever smoked, chewed, or sniffed any tobacco product? (Such as cigarettes, cigars snuff, etc.)

[ ] a. No

[ ] b. Yes

(ii**).** Have smoke chewed or sniffed any tobacco products in the last 12 months?

[ ] a**.** No

[ ] b. Yes

(iii**).** Have you smoked, chewed or sniffed a tobacco product in the last 30 days?

[ ] a. No

[ ] b. Yes, on 1 - 5 days

[ ] c. Yes, on 6 - 19 days

[ ] d. Yes, on 20 or more days

(iv**).** How old were you when you first sniffed, smoked or chewed a tobacco product?

[ ] a. I have never used a tobacco product

[ ] b. 10 years or less

[ ] c. 11 - 12 years

[ ] d. 13 - 14 years

[ ] e. 15 - 16 years

[ ] f. 17 - 18 years

[ ] g. 19 years old or more

(v**)** If you have ever used any tobacco product, what type have you used?

[ ] a. Cigarettes

[ ] b. Pipe smoking

[ ] c. Snuff

[ ] d. Chewing

[ ] e. Other please specify...

[ ] f. Not applicable

48. How often do you smoke tobacco at present?

[ ] a. I do not smoke

[ ] b. Less than once per week

[ ] c. At least once per week but not every day

[ ] d. Every day

49. How old were you when you first started smoking every day?

[ ] a. I do not smoke cigarettes

[ ] b. I do not smoke every day

[ ] c. Less than 10 years

[ ] d. 11 - 12 years

[ ] e. 13 - 14 years

[ ] f. 15 - 16 years

[ ] g. 17 - 18 years

[ ] h. 19 or more years

50. How many cigarettes do you smoke in a week?

[ ] a. No I do not smoke cigarettes

[ ] b. 1 - 5 sticks

[ ] c. 6 - 10 sticks

[ ] d. 11 - 15 sticks

[ ] e. 16 - 20 sticks

[ ] f. 21 - 40 sticks

[ ] g. 41 - 60 sticks

[ ] h.More than 60 sticks

QUESTIONS RELATING TO OTHERS' TOBBACO USE

51. How many of your friends do you think smoke cigarettes daily?

[ ] a. None

[ ] b. A few

[ ] c. Many

[ ] d. All

52. does your father smoke, sniff or chew tobacco?

[ ] a. I do not have a father

[ ] b. No

[ ] c. Yes

[ ] d. I do not know

53. does your mother smoke, sniff or chew tobacco?

[ ] a. I do not have a mother

[ ] b. No

[ ] c. Yes

[ ] d. I do not know

54. Do you have at least one brother or sister who smokes, chews, or sniffs tobacco?

[ ] a. I do not have a brother or sister

[ ] b. No

[ ] c. Yes

[ ] d. I do not know

55. Does your closest friend smoke?

[ ] a. I do not have a close friend

[ ] b. No he/she does not smoke

[ ] c. Yes

56. How would your parents/guardian react if you smoked cigarettes?

[ ] a. Approve

[ ] b. No reaction

[ ] c. Disapprove

[ ] d. Strongly disapprove

[ ] e. I do not know

QUESTIONS RELATED TO YOUR OWN ALCOHOL USE

57. (i) Have you ever taken any alcoholic beverages?(including beer, wine, gongo, chibuku, dengelua, mbege, kangara, mnazi,etc)

[ ] a. No

[ ] b. Yes

(ii) Have you taken any alcoholic beverages in the last 12 months?

[ ] a. No

[ ] b. Yes

(iii**)**Have you had any alcoholic beverages in the last 30 days?

[ ] a. No

[ ] b. Yes, on 1 - 5 days

[ ] c. Yes, on 6 - 19 days

[ ] d. Yes, on 20 days or more

(iv). How old were you when you first took alcohol?

[ ] a. I have never drunk alcohol

[ ] b. Less than 10 years

[ ] c. Between 11 and 13 years

[ ] d. Between 14 and 16 years

[ ] e. Between 17 and 19 years

[ ] f. 20 years or more

(v)If at present you drink an alcoholic beverage at least once every week, how old were you when you started drinking so?

[ ] a**.** I do not drink alcohol

[ ] b. I do not drink alcohol more than one day in a week

[ ] c. Less than 10 years

[ ] d. 11 - 13 years

[ ] e. 14 - 16 years

[ ] f. 17 - 19 years

[ ] g. 20 years or more

58. At the present, how often do you take any alcoholic drink?

(i) Beer

[ ] a. I do not drink beer

[ ] b. Every day

[ ] c. Every week

[ ] d. Every month

[ ] e. Less than monthly

(ii) Wine

[ ] a. I do not drink wine

[ ] b. Every day

[ ] c. Every week

[ ] d. Every month

[ ] e. Less than monthly

(iii) Alcoholic spirits and liquor

[ ] a. I do not drink alcoholic spirits and liquor

[ ] b. Every day

[ ] c. Every week

[ ] d. Every month

[ ] e. Less than once per month

(iv). Traditional alcoholic beverages but not spirits like mbege, dengelua, mnazi nakdhalika)

[ ] a. I do not drink alcoholic spirits and liquor

[ ] b. Every day

[ ] c. Every week

[ ] d. Every month

[ ] e. Less than once per month

(v)Traditional illicit spirits like gongo/moshi etc.

[ ] a. I do not drink traditional illicit spirits

[ ] b. Every day

[ ] c. Every week

[ ] d. Every month

[ ] e. Less than monthly

59. (i)With whom do you mostly drink alcohol? (Choose only one box)

[ ] a. I do not drink alcohol

[ ] b. Friends of my own age or younger than me

[ ] c. Friends are older than me

[ ] d. Older sisters and brothers

[ ] e. Older relatives

[ ] f. Alone

[ ] g. Neighbor families

[ ] h. No one in particular

(ii)Where do you mostly drink alcohol?

[ ] a. I do not drink alcohol

[ ] b. Home

[ ] c. In a public drinking place

[ ] d. In a bush

[ ] e. At school

[ ] f. At a friend's place

[ ] g. Other places (specify).....

(iii)Are you mainly with girls or boys when you drink alcohol?

[ ] a. I do not drink alcohol

[ ] b. Mainly with boys

[ ] c. Mainly with girls

[ ] d**.** Both male and female

QUESTIONS RELATING TO OTHERS' ALCOHOL USE

60. Does your father drink alcohol?

[ ] a. I do not have a father

[ ] b .No

[ ] c. Yes

[ ] d. I do not know

61. If your father takes alcohol, how often does he drink?

[ ] a. I do not have a father

[ ] b. Every day

[ ] c. At least weekly but not every day

[ ] d. He does not drink

[ ] e. I do not know

62. Does your mother drink?

[ ] a. I do not have a mother

[ ] b. No

[ ] c. Yes

63. Do you have an elder brother or sister who drinks alcohol?

[ ] a. I do not have an elder brother or sister

[ ] b. No

[ ] c. Yes

[ ] d. I do not know

64. How many of your friends do you believe take alcohol?

[ ] a. I do not have any friends

[ ] b. None

[ ] c. One

[ ] d. Many

[ ] e. All

[ ] f. I do not know

65. If you are currently drinking any alcohol, who provides it?

(i) Friends

[ ] a. Yes

[ ] b. No

[ ] c. I do not drink alcohol

(ii) Parents

[ ] a. Yes

[ ] b. No

[ ] c. I do not drink alcohol

(iii) Older friends/relatives

[ ] a. Yes

[ ] b. No

[ ] c. I do not drink alcohol

(iv). Neighbours

[ ] a.Yes

[ ] b.No

[ ] c.I do not drink alcohol

(v) A casual acquaintance

[ ] a.Yes

[ ] b.No

[ ] c.I do not drink alcohol

(vi) I buy it myself

[ ] a.Yes

[ ] b.No

[ ] c. I do not drink alcohol

66. How would your parents react if you drank alcohol?

[ ] a. Approve

[ ] b. No reaction

[ ] c. Disapprove

[ ] d. Strongly disapprove

[ ] e. I do not know

QUESTIONS RELATED TO YOUR OWN CANNABIS USE

67. (i) Have you ever taken any bhang? (cannabis, marijuana, hashish, joint, pot, ganja)

[ ] a.No

[ ] b.Yes

(ii)Have you used bhang in the last 12 months?

[ ] a. No

[ ] b.Yes

(iii)Have you taken bhang in the last 30 days?

[ ] a. I do not smoke bhang

[ ] b. No

[ ] c. Yes, on 1-5 days

[ ] d. Yes, on 6-19 days

[ ] e. Yes, on 20 or more days

(iv). How old were you when you first took bhang?

[ ] a. I have never taken bhang

[ ] b. Less than 10 years

[ ] c. 11 - 13 years

[ ] d. 14 - 16 years

[ ] e. 17 - 19 years

[ ] f. More than 20 years old

68. How often do you use bhang at present?

[ ] a. I do not smoke bhang

[ ] b. Less than once per week

[ ] c. Every week but not every day

[ ] d. Every day

69. If you have taken bhang in the last 30 days, with who did you mostly take it? (make sure you fill in one box only)

[ ] a. I have not taken bhang in the last 30 days

[ ] b. With friends

[ ] c. With my family

[ ] d. Alone

[ ] e. Casual acquaintance

[ ] f. Other (specify).....

70. If you have used bhang in the last 30 days, where did you take it? (Make sure you will fill in one box only)

[ ] a. I have not taken bhang in the last 30 days

[ ] b. At home

[ ] c. At school

[ ] d. At a friends' place

[ ] e. On the street or in a park

[ ] f. In a bush

[ ] g. Other (specify).....

QUESTIONS RELATING TO OTHERS' BHANG USE

71. Do you have an older brother or sister who smokes bhang?

[ ] a. I do not have an older brother or sister

[ ] b. No

[ ] c. Yes

[ ] d. I do not know

72. Does your friend use bhang?

[ ] a. No he/she does not use bhang

[ ] b. Yes, but less than once per week

[ ] c. I do not have a best friend

73. How many of your friends take bhang at least once weekly?

[ ] a. None

[ ] b. A few

[ ] c. Many

[ ] d. All

74. How would your parents react if you use bhang?

[ ] a. Approve

[ ] b. No reaction

[ ] c. Disapprove

[ ] d. Strongly disapprove

[ ] e. I do not know

75. Does your father smoke bhang?

[ ] a. I do not have a father

[ ] b. No

[ ] c. Yes

[ ] d. I do not know

76. does your mother smoke bhang?

[ ] a. I do not have a mother

[ ] b. No

[ ] c. Yes

[ ] d. I do not know

QUESTIONS RELATING TO YOUR OWN USE OF INHALANTS,

77. (i) Have you ever inhaled or sniffed things like petrol, glue, nail varnish etc with the intention of getting high or feeling good?

[ ] a. No

[ ] b. Yes

(ii) Have you inhaled or sniffed these things in the last 12 months?

[ ] a.No

[ ] b.Yes

(iii) Have you inhaled or sniffed these things in the last 30 days?

[ ] a.No

[ ] b.Yes

(iv). How old were you when you started sniffing these things?

[ ] a. I do not inhale inhalants

[ ] b. Less than 10 years

[ ] c.11 - 13 years

[ ] d.14 - 16 years

[ ] e.17 - 19 years

[ ] f. 20 years or more

78. If you sniff or inhale these things to get high at present, how often do you do it?

[ ] a. I do not sniff/inhale these things to get high

[ ] b. Less than once per week

[ ] c. Every week but not every day

[ ] d. Everyday

QUESTIONS RELATING TO OTHERS' USE OF INHALANTS

79. Do you have an older brother or sister who sniffs/inhales these things to get high?

[ ] a. No

[ ] b. Yes

[ ] c. I do not have an older brother

[ ] d. I do not know

80. Does your best friend sniff/inhale these things?

[ ] a. I do not have a best friend

[ ] b. No

[ ] c. Yes

[ ] d. I do not know

81. Does your best father sniff/inhale these things?

[ ] a. I do not have a father

[ ] b. No

[ ] c. Yes

[ ] d. I do not know

82. Does your best mother sniff/inhale these things?

[ ] a. I do not have a mother

[ ] b. No

[ ] c. Yes

[ ] d. I do not know

83. How would your parents react if you sniffed/inhaled petrol, glue or varnish?

[ ] a. Approve

[ ] b. No reaction

[ ] c.Disapprove

[ ] d. Strongly disapprove

[ ] e.I do not know

OTHER DRUGS

84. Have you ever taken any of the following drugs?

Key to use when answering for (a) to (f)

DRUGS	Never used	yes, but not in the last 12 months	yes, at least once in the last 12 months	yes, 1 - 5 times in the last 30 days	yes, 6 - 19 times in the last 30 days	yes, more than 20 time in the last 30 days	Age when you started using drugs	I do not know this drug
a. Sedatives								
b. Heroin								
c. Cocaine								
d. stimulants								
e. mandrax								
f. khat								

KISWAHILI VERSION QUESTIONNAIRE

Utafiti kuhusu utumiaji wa madawa ya kulevya na sababu za kisosio-saokolojia kwa vijana mashuleni katika Manispaa ya Dodoma**.**

Maswali ya utafiti

Maswali haya yamelenga kutafiti kuhusu utumiaji wa madawa ya kulevya na sababu za kisocio-saikolojia kwa vijana wa shule za sekondari. Ili utafiti huu uweze kuwa wa manufaa, ni muhimu kuyajibu maswali yote kwa uangalifu mkubwa. Majibu yako yote yatakuwa siri, na ndiyo maana hatukuulizi kuandika jina lako. Watu wengi hufurahia kuyajibu maswali haya, ni mategemeo yetu kuwa nawe pia utayafurahia. Tafadhali soma maelekezo yafuatayo kabla ya kujibu maswali.

Maelekezo ya kujibu maswali

Huu si mtihani hivyo hamna majibu yaliyo sahihi au la bali unaombwa kujibu kufuatana na uelewa na imani yako binafsi. Kwa kila swali, chagua jibu unaloliona linafaa zaidi na uweke alama ya X ndani ya kisanduku kama hivi [X]. Chagua jibu moja kwa kila swali na/au kipengele cha swali. Kwa mfano:

Je, umekunywa maji mara ngapi katika siku 30 zilizopita?

[ ] A. Hapana

[ ] B. Ndiyo, mara 1 hadi 5

[ ] C. Ndiyo, mara 6 hadi 19

[X] D. Ndiyo, mara 20 na zaidi

Jibu lililochaguliwa ni "D" maana yake ni kwamba huyo mtu amekunywa maji siku 20 au zaidi katika siku 30 zilizopita.

Kama utakuwa hulijui jibu unaloliona linafaa au huwezi kulijibu kwa uaminifu tafadhali usilijibu.Jibu maswali mengi kadiri uwezavyo.

I. TAARIFA ZA UTAFITI

Tarehe ya usaili :.....

Namba ya utafiti/dodoso.....

Jina la msaili:.....

II. TAKWIMU ZA KIDEMOGRAFIA

1. Je, wewe ni kijana wa kiume au wa kike?

[ ] a.Kiume

[ ] b.Kike

2. Je, una umri wa miaka mingapi sasa? ……

3. Je, unasoma shule gani kwa sasa? (taja).....

4. Je, wewe unasoma kidato cha ngapi hapa shuleni?

[ ] a. kidato cha kwanza

[ ] b. kidato cha pili

[ ] c. kidato cha tatu

[ ] d. kidato cha nne

5. Umekulia katika eneo gani?

[ ] a. Eneo la jijini

[ ] b. Eneo la mjini

[ ] c. Eneo la kijijini

6. Je, kwa sasa unaishi wapi?

[ ] a. Nyumbani

[ ] b. Shule ya bweni

[ ] c. Hosteli

7. Je, kwa sasa unaishi na nani?

[ ] a. mama pekeee

[ ] b. baba pekee

[ ] c. Wazazi wote wawili

[ ] d. Wazazi na ndugu nilozaliwa nao tumbo moja

[ ] e. Wazazi na jamaa wengine

[ ] f. wazazi, ndugu wa tumbo moja na jamaa wengine

[ ] g. Mwingine unayeishi naye (taja).....

8. Je, ipi ni hali ya ndoa ya wazazi wako?

[ ] a. sina wazazi
[ ] b. Hawajaoana
[ ] c. wameoana
[ ] d. mjane
[ ] e. wametengana
[ ] f. wametalikiana
[ ] g. hali ingine, elezea……

9. Je, baba yako ana elimu gani?

[ ] a. Sina baba

[ ] b. Hakwenda shule

[ ] c. Elimu ya watu wazima

[ ] d. Elimu ya madrasa

[ ] e. Elimu ya msingi

[ ] f. Elimu ya sekondari

[ ] g. Elimu ya juu lakini sio chuo kikuu

[ ] h. Chuo kikuu

[ ] i. Sijui

10. Je, mama yako ana elimu gani?

[ ] a. Sina mama

[ ] b. Hakwenda shule

[ ] c. Elimu ya watu wazima

[ ] d. Elimu ya madrasa

[ ] e. Elimu ya msingi

[ ] f. Elimu ya sekondari

[ ] g. Elimu ya juu lakini sio ya Chuo kikuu

[ ] h. Chuo kikuu

[ ] i. Sijui

11. Je, kama huishi na wazazi wako unayeishi naye ana elimu gani?

[ ] a. Hakwenda shule

[ ] b. Elimu ya watu wazima

[ ] c. Elimu ya madrasa

[ ] d. Elimu ya msingi

[ ] e. Elimu ya sekondari

[ ] f. Elimu ya juu lakini sio Chuo kikuu

[ ] g. Chuo kikuu

[ ] h. Sijui

12. Je, baba yako anafanya kazi gani?

[ ] a. Sina baba

[ ] b. Mkulima

[ ] c. Mwalimu

[ ] d. Fundi

[ ] e. Karani

[ ] f. Mhasibu

[ ] g. Mfanyi biashara

[ ] h. Mfanyakazi wa kiwandani

[ ] i. Mlinzi

[ ] j. Kazi ingine, ipi.....

[ ] k. Hana kazi

[ ] l. Sijui

13. Je, mama yako anafanya kazi gani?

[ ] a. Sina mama

[ ] b. Mama wa nyumbani

[ ] c. Mkulima

[ ] d. Mwalimu

[ ] e. Karani/sekretari

[ ] f. Mfanyabiashara

[ ] g. Muuguzi

[ ] h. Mfanyakazi wa nyumbani

[ ] i. Kazi nyingine, ipi.....

[ ] j. Hana kazi

[ ] k. Sijui

14. Je, Kama huishi na wazazi wako unayeishi nae anafanya kazi gani?

[ ] a. Mkulima

[ ] b. Mwalimu

[ ] c. Fundi

[ ] d. Karani/sekretari

[ ] e. Mhasibu

[ ] f. Mfanya biashara

[ ] g. Muuguzi

[ ] h. Kazi nyingine, ipi .....

[ ] i. Hana kazi

[ ] j. Sijui

15. Je, nyumba unayohishi ina vitu kati ya hivi vifuatavyo?

i.Umeme Ndiyo...../ Hapana.....

ii.Redio Ndiyo...../ Hapana.....

iii.Runinga Ndiyo...../ Hapana.....

iv.Jokofu Ndiyo...../ Hapana.....

16.Je,kuna yeyote katika kaya yako anamiliki kati ya vifuatavyo?

i.Baisikeli Ndiyo...../ Hapana.....

ii.Pikipiki Ndiyo...../ Hapana.....

iii.Gari Ndiyo...../ Hapana.....

17. Je katika familia mnapata chakula cha kutosha au muda mwingine hakitoshi?

[ ] a. Kinatosha muda wote

[ ] b. Kuna muda hakitoshi

[ ] c. Mara nyingi hakitoshi

[ ] d. Muda wote akitoshi

[ ] e. Sijui

18. Je, mnapata wapi ya kunywa katika kaya yenu?

[ ] a. Maji ya bomba ya nyumba/uani

[ ] b. Maji ya bomba la jumuiya

[ ] c. Maji ya kisima ndayamakazi

[ ] d. Maji ya kisima cha jumuiya

[ ] e. Maji ya chemchemi

[ ] f. Maji ya mto/bwawa

[ ] g.Maji ya mvua

19. Je nyumba yenu ina choo cha aina gani?

[ ] a. Choo cha maji cha kuvuta cha binafsi

[ ] b Choo cha maji cha kuvuta cha kushirikiana

[ ] c. Choo cha shimo cha kisasa

[ ] d. Choo cha shimo cha kizamani

[ ] e. Hatuna uduma ya choo

20. Je, sakafu ya nyumba yenu ni ya aina gani?

[ ] a. Ya udongo kawaida

[ ] b. Ya mbao za kizamani

[ ] c. Imepigwa simenti

[ ] d. Ina vigae/tailizi

[ ] e.Imemaliziwa na mbao zilizo nakishiwa

21.Je wewe ni muamini wa dini/dhehebu gani?

[ ] a. si muamini

[ ] b. Muamini wa dini ya kiasili

[ ] c. Muislamu

[ ] d. Mkristo

[ ] e. dini nyinginezo

22. Je, dini ina umuhimu wowote katika maisha yako?

[ ] a. haina umuhimu wowote

[ ] b. ina umuhimu kiasi

[ ] c. muhimu

[ ] d. ina umuhimu sana

23. Je,ni mara ngapi unahudhuria ibada?

[ ] a. kamwe sihudhurii

[ ] b. mara chache

[ ] c. mara moja au zaidi kwa mwezi

[ ] d. angalau mara moja kwa wiki au zaidi

24. Je, unafikiria kufanya nini utakapomaliza shule?

[ ] a. Kuendelea na masomo

[ ] b. Kuendelea na masomo ya ufundi

[ ] c. Kufanya kazi ya kuajiriwa

[ ] d. Kuwa mkulima

[ ] e. Kubaki bila kazi

[ ] f. Hakuna kilichotajwa, ila nitafanya...

[ ] g. Sijui

25. Je, mwalimu wako wa darasa anafikiria vipi kuhusu maendeleo ya masomo yako akiyalinganisha na ya wanafunzi wengine katika darasa lako?

[ ] a. Mazuri sana

[ ] b. Mazuri

[ ] c. Ya wastani

[ ] d. Chini ya wastani

[ ] e. Sijui

26. Je, unafikiri nini kuhusu shule kwa sasa hivi?

[ ] a. Naipenda sana shule

[ ] b. Naipenda kidogo

[ ] c. Siipendi sana

[ ] d. Siipendi kabisa

MASWALI YANAYOHUSU SHUGHULI ZA NJE YA MUDA WA MASOMO

27. Je, unajihusisha na vikundi vyovyote kama vya michezo au masomo nje ya masaa ya shule?

[ ] a. Sijihusishi

[ ] b. Najihisisha na vikundi vya vijana

[ ] c. Najihusisha na mschezo wa mpira

[ ] d. Najihusisha na kikundi cha kidini

[ ] e. Najihusisha na kikundi cha muziki

[ ] f. Kikundi kingine,taja……..

28. Baada ya masaa ya shule, unatumia masaa mangapi kwa juma kwa ajili ya kufanya mazoezi hadi ukakosa pumzi au kutokwa na jasho?

[ ] a. Sifanyi mazoezi yoyote

[ ] b. Nafanya mazoezi kwa nusu saa

[ ] c. Nafanya mazoezi kwa saa moja

[ ] d. Nafanya mazoezi kwa masaa 2 hadi 3

[ ] e. Nafanya mazoezi kwa masaa 4 hadi 6

[ ] f. Nafanya mazoezi kwa masaa 7 au zaidi

29. Je, wewe huenda kwenye makundi ya michezo na rafiki zako wa karibu?

[ ] a. ndiyo

[ ] b. hapana

30. Kwa kawaida ni jioni ngapi katika juma moja unapokuwa nyumbani na familia yako?

[ ] a. Sikai nyumbani na familia jioni zote katika juma

[ ] b. Jioni 1

[ ] c. Jioni 2

[ ] d. Jioni 3

[ ] e. Jioni 4

[ ] f. Jioni 5

[ ] g. Jioni 6

[ ] h. Jioni 7

31. Kwa kawaida jioni ambazo haupo na familia yako huwa unakuwa na akina nani?

[ ] a. Rafiki zangu wa umri mmoja au wadogo zaidi

[ ] b. Marafiki wenye umri mkubwa kunipita mimi

[ ] c. Dada au kaka

[ ] d. Ninakuwa peke yangu

[ ] e. Majirani

[ ] f. Mtu yeyote yule

[ ] g. Ndugu wengine, tafadhali taja.....

[ ] h. Sitoki nyumbani masaa ya jioni

MASWALI YANAYOHUSU MAHUSIANO YA KIJANA NA WAZAZI/WALEZI

32. Je, unauelezaje uhusiano na wazazi /walezi wako?

[ ] a. mzuri sana

[ ] b. mzuri

[ ] c. mbaya

[ ] d. kati kwa kati

33. Je, unaweza kuwaamini na kuwaeleza wazazi/walezi wako mambo yako ya msingi?

[ ] a. ndiyo

[ ] b. hapana

34. Je, unafikiri wazazi/ walezi wako wanakuelewa wewe?

[ ] a. ndio

[ ] b. hapana

35. Je, unahisi kupendwa na kulindwa na wazazi/walezi wako?

[ ] a. ndiyo

[ ] b. hapana

36. Je, unafikiri wazazi/walezi wako wanaingilia maisha yako?

[ ] a. ndiyo

[ ] b. hapana

37. Nani mtu/ watu wa muhimu katika maisha yako?

[ ] a. Wazani/ walezi

[ ] b. marafiki

[ ] c. wengineo (taja) ---------

38. Nani hukuchagulia marafiki kati ya hawa?
[ ] a. Wazazi/ walezi
[ ] b. Wewe mwenyewe

39. Je, umefurahishwa na aina hii ya uchaguaji?
[ ] a. ndio
[ ] b. hapana

40. Je, unatumia muda wako mwingi na nani?
[ ] a. Mchumba wako
[ ] b. Familia
[ ] c. mrafiki
[ ] d. wenzio unaosoma nao
[ ] e. peke yako
[ ] f. wengineo taja-------

41. Je, unapokwenda matembezi wazazi/ walenzi huwa wanafahamu mahali ulikokwenda?

a. Mama/mlezi wa kike	b. baba/mlezi wa kiume
[ ] ndiyo	[ ] ndiyo
[ ] hapana	[ ] hapana

42. Je, wazazi/ walezi wako wanawafahamu rafiki zako unaokuwa nao muda mwingi?

a. mama/mlezi wa kike	b.baba/mlezi wa kiume
[ ] ndiyo	[ ] ndiyo
[ ] hapana	[ ] hapana

43. Je, wazazi/ walezi wako wamewahi kukuadhibu katika miaka mitano iliopita kwa njia zifuatazo?
[ ] a. kukupiga
[ ] b. kukunyima ruhusa ya kufanya unachokitaka
[ ] c. kubishana nawewe mara zote
[ ] d. kukulaumu
[ ] e. njia nyingine taja ……...

44. Je, unazichukuliaje hizi adhabu?
[ ] a.Vibaya sana
[ ] b.vibaya
[ ] c. kati kwa kati
[ ] d. vizuri

45. Je, kwenu kuna sheria kati ya hizi ambazo unazotakiwa kuzufuata?
[ ] a. kutochelewe kurudi nyumbani
[ ] b. kutoenda matembezi bila ruhusa
[ ] c.kuangalia unaeenda nae matembezi
[ ] d.Njia nyingine taja……..

46. Je, familia yako inakusaidia ipasavyo kupata yafuatayo?
[ ] a. malazi
[ ] b. mavazi
[ ] c. elimu

MASWALI YANAYOHUSU UTUMIAJI WAKO WA TUMBAKU

47. (i) Je, umeshawahi kuvuta, kubwiya, au kunusa tumbaku ya aina yeyote? (Kwa mfano sigara, kuvuta kiko, kubwiya ugoro, kunusa ugoro na kadhalika)

[ ] a. Hapana

[ ] b. Ndiyo

(ii) Je, umeshawahi kuvuta, kubwiya au kunusa aina yoyote ya tumbaku katika mwaka mmoja uliopita?

[ ] a. Hapana

[ ] b. Ndiyo

(iii) Umevuta, kubwiya, au kunusa aina yeyote ya vilivyotajwa hapo juu katika siku 30 zilizopita?

[ ] a. Hapana

[ ] b. Ndiyo, siku 1 hadi 5

[ ] c. Ndiyo, siku 6 hadi 19

[ ] d. Ndiyo, siku zaidi ya 20

(iv)Ulikuwa na umri gani ulipoanza kutumia aina yoyote ya tumbaku?

[ ] a. Sijawahi kutumia tumbaku

[ ] b. Chini ya miaka kumi

[ ] c. Kati ya miaka 11 na 12

[ ] d. Kati ya miaka 13 na 14

[ ] e. Kati ya miaka 15 na 16

[ ] f. Kati ya miaka 17 na 18

[ ] g. Miaka 19 au zaidi

(v) Kama umeshawahi kutumia tumbaku, ni aina gani ambayo umetumia?

[ ] a. Sigara

[ ] b. Kiko

[ ] c. Kunusa

[ ] d. Kubwiya

[ ] e. Aina ingine yeyote, andika.....

[ ] f. Sijawahi kutumia

48. Unavuta sigara ngapi kwa wakati huu?

[ ] a. Sivuti sigara

[ ] b. Chini ya mara moja kwa juma

[ ] c. Zaidi ya mara moja kwa juma lakini sio kila siku

[ ] d. Kila siku

49. Ulikuwa na umri gani ulipoanza kuvuta sigara kila siku?

[ ] a. Sivuti sigara kabisa

[ ] b. Sivuti sigara kila siku

[ ] c. Chini ya miaka 10

[ ] d. Kati ya miaka 11 na 12

[ ] e. Kati ya miaka 13 na 14

[ ] f. Kati ya miaka 15 na 16

[ ] g. Kati ya miaka 17 na 18

[ ] h. Miaka 19 au zaidi

50. Je, unavuta sigara ngapi kwa juma moja?

[ ] a. Sivuti sigara

[ ] b. Sigara 1 hadi 5

[ ] c. Sigara 6 hadi 10

[ ] d. Sigara 11 hadi 15

[ ] e. Sigara 16 hadi 20

[ ] f. Sigara 21 hadi 40

[ ] g. Sigara 41 hadi60

[ ] h. Zaidi ya sigara 60

MASWALI YANAYOHUSU UTUMIAJI WA TUMBAKU NA WATU WENGINE

51. Je unafikiria ni rafiki zako wangapi wanaotumia tumbaku kila siku?

[ ] a. Hakuna

[ ] b. Wachache

[ ] c. Wengi

[ ] d. Wote

52. Je, baba yako anavuta, ananusa au kubwiya tumbaku?

[ ] a. Sina baba

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

53. Je, mama yako anavuta, ananusa au kubwiya tumbaku?

[ ] a. Sina mama

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

54. Je, kaka au dada yako anatumia tumbaku?

[ ] a. Sina kaka au dada

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

55. Je, rafiki yako anatumia tumbaku?

[ ] a. Sina rafiki

[ ] b. Hapana

[ ] c. Ndiyo

56. Je, wazazi/walezi wako wataonaje iwapo utavuta sigara?

[ ] a. Wataona ni sawa tu

[ ] b. Hawatafanya lolote

[ ] c. Hawatafurahia

[ ] d. Hawatafurahia kabisa

[ ] e. Sijui watonaje

MASWALI YANAYOHUSU UTUMIAJI WAKO WA POMBE

57. (i) Je umeshawahi kunywa pombe ya aina yoyote? (Kama bia, mvinyo, gongo, chibuku, dengelua, mbege, kangara, mnazi, kabungusi, nakadhalika)

[ ] a. Hapana

[ ] b. Ndiyo

(ii) Je, umekunywa pombe ya aina yoyote katika muda wa mwaka mmoja uliopita?

[ ] a. Hapana

[ ] b. Ndiyo

(iii) Je, umekunywa pombe katika siku 30 zilizopita?

[ ] a. Hapana

[ ] b. Ndiyo, siku 1 hadi 5

[ ] c. Ndiyo, siku 6 hadi 19

[ ] d. Ndiyo, zaidi ya siku 20

(iv)Ulikuwa na umri gani ulipoanza kunywa pombe?

[ ] a. Sijawahi kunywa pombe

[ ] b. Chini ya miaka 10

[ ] c. Kati ya miaka 11 na 13

[ ] d. Kati ya miaka 14 na 16

[ ] e. Kati ya miaka 17 na 19

[ ] f. Miaka 20 na zaidi

(v)Iwapo kwa wakati huu unakunywa pombe zaidi ya siku moja kwa juma ulikuwa na umri gani ulipoanza kunywa pombe hivyo?

[ ] a. Sinywi pombe kabisa

[ ] b. Sinywi pombe zaidi ya siku moja kwa juma

[ ] c. Chini ya miaka 10

[ ] d. Kati ya miaka 11 na 13

[ ] e. Kati ya miaka 14 na 16

[ ] f. Kati ya miaka 17 na 19

[ ] g. Miaka 20 au zaidi

58. Siku hizi unakunywa pombe mara ngapi?
(i) Bia

[ ] a. Sinywi bia

[ ] b. Kila siku

[ ] c. Kila juma

[ ] d. Kila mwezi

[ ] e. Chini ya mara moja kwa mwezi

(ii) Mvinyo

[ ] a. Sinywi mvinyo

[ ] b. Kila siku

[ ] c. Kila juma

[ ] d. Kila mwezi

[ ] e. Chini ya mara moja kwa mwezi

(iii) Pombe kali kwa mfano wiski, konyagi na kadhalika

[ ] a. Sinywi pombe kali

[ ] b. Kila siku

[ ] c. Kila juma

[ ] d. Kila mwezi

[ ] e. Chini ya mara moja kwa mwezi

(iv) Pombe za kienyeji, kwa mfano mbege, dengelua, mnazi na kadhalika

[ ] a. Sinywi pombe kali

[ ] b. Kila siku

[ ] c. Kila juma

[ ] d. Kila mwezi

[ ] e. Chini ya mara moja kwa mwezi

(v)Pombe kali za kienyeji, kwa mfano gongo/moshi

[ ] a. Sinywi pombe kali za kienyeji

[ ] b. Kila siku

[ ] c. Kila juma

[ ] d. Kila mwezi

[ ] e. Chini ya mara moja kwa mwezi

59. (i)Iwapo unakunywa pombe ya aina yeyote angalau mara chache, je huwa unakunywa pombe zaidi na nani? (tafadhali jaza sehemu moja)

[ ] a. Sinywi pombe

[ ] b. Marafiki wa rika langu au wadogo zaidi

[ ] c. Marafiki wa umri mkubwa kunipita

[ ] d. Dada na /au kaka zangu

[ ] e. Ndugu watu wazima

[ ] f. Peke yangu

[ ] g. Majirani

[ ] h. Nakunywa na mtu yeyote Yule

(ii)Je, kwa kawaida unakunywa pombe ukiwa wapi?

[ ] a. Sinywi pombe

[ ] b. Nyumbani

[ ] c. Mahali panapouzwa na kunywewa pombe

[ ] d. Kwenye kichaka

[ ] e. Shuleni

[ ] f. Nyumbani kwa rafiki yangu

[ ] g. Mahali pengine (taja).....

(iii)Je wakati unapokunywa pombe unakuwa zaidi na vijana wenzako wa kike au wa kiume?

[ ] a. Sinywi pombe

[ ] b. Zaidi wa kiume

[ ] c. Zaidi wa kike

[ ] d. Wa kike na kiume

MASWALI YANAYOHUSU UNYWAJI WA POMBE WA WENGINE

60. Je, baba yako anakunywa pombe?

[ ] a. Sina baba

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

61. Kama baba yako anakunywa pombe, je anakunywa pombe mara ngapi?

[ ] a. Sina baba

[ ] b. Kila siku

[ ] c. Kila juma lakini sio kila siku

[ ] d. Hanywi pombe

[ ] e. Sijui

62. Je, mama yako anakunywa pombe?

[ ] a. Sina mama

[ ] b. Hapana

[ ] c. Ndiyo

63. Je, kaka au dada yako anakunywa pombe?

[ ] a. Sina kaka au dada

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

64. Je, rafiki zako wangapi wanakunywa pombe?

[ ] a. Sina rafiki

[ ] b. Hakuna

[ ] c. Mmoja

[ ] d. Wengi

[ ] e. Wote

[ ] f. Sijui

65. Kama unakunywa pombe ya aina yeyote kwa wakati huu, ni nani anayekupa pombe hiyo kati ya hawa wafuatao?

(i) Marafiki

[ ] a. Ndiyo

[ ] b. Hapana

[ ] c. Sinywi pombe

(ii)Wazazi

[ ] a. Ndiyo

[ ] b. Hapana

[ ] c. Sinywi pombe

(iii)Wakubwa zangu

[ ] a. Ndiyo

[ ] b. Hapana

[ ] c. Sinywi pombe

(iv)Majirani

[ ] a. Ndiyo

[ ] b. Hapana

[ ] c. Sinywi pombe

(v)Mtu ninayemfahamu tu

[ ] a. Ndiyo

[ ] b. Hapana

[ ] c. Sinywi pombe

(vi)Nanunua mwenyewe

[ ] a. Ndiyo

[ ] b. Hapana

[ ] c. Sinywi pombe

66. Je wazazi/walezi wako wataonaje iwapo utakunywa pombe?

[ ] a. Wataona ni sawa tu

[ ] b. Hawatafanya lolote

[ ] c. Hawatafurahia

[ ] d. Hawatafurahia kabisa

[ ] e. Sijui wataonaje

MASWALI YANAYOHUSU UTUMIAJI WAKO WA BHANGI

67. (i) Je, umeshawahi kuvuta bangi? (Msokoto, ganja, sigara kubwa)

[ ] a. Hapana

[ ] b. Ndiyo

(ii) Je, umevuta bangi katika mwaka mmoja uliopita?

[ ] a. Hapana

[ ] b. Ndiyo

(iii) Je, umevuta bangi katika siku 30 zilizopita?

[ ] a. Sivuti bangi

[ ] b. Hapana

[ ] c. Siku 1 hadi 5

[ ] d. Siku 6 hadi 19

[ ] e. Siku 20 au zaidi

(iv)Ulikuwa na umri gani ulipoanza kuvuta bangi?

[ ] a. Sijawahi kuvuta bangi

[ ] b. Chini ya miaka 10

[ ] c. Kati ya miaka 11 na 13

[ ] d. Kati ya miaka 14 na 16

[ ] e. Kati ya miaka 17 na 19

[ ] f. Miaka 20 au zaidi

68. Je, siku hizi unavuta bangi mara ngapi?

[ ] a. Sivuti bangi

[ ] b. Chini ya mara moja kwa juma

[ ] c. Kila juma lakini sio kila siku

[ ] d. Kila siku

69. Kama umevuta bangi katika siku 30 zilizopita ulikuwa zaidi ukiwa na nani?

[ ] a. Sijavuta bangi katika siku 30 zilizopita

[ ] b. Na rafiki zangu

[ ] c. Na familia yangu

[ ] d. Mwenyewe

[ ] e. Mtu ninaye mfahamu

[ ] f. Wengine (taja).....

70. Kama umevuta bangi katika siku 30 zilizopita, ulikuwa wapi?

[ ] a. Sijavuta bangi katika siku 30 zilizopita

[ ] b. Nyumbani

[ ] c. Shuleni

[ ] d. Nyumbani kwa rafiki yangu

[ ] e. Barabarani au bustanini

[ ] f. Kwenye kichaka

[ ] g. Sehemu nyingine (taja).....

MASWALI YANAYOHUSU UTUMIAJI WA BANGI WA WATU WENGINE

71. Je, una kaka au dada yako anayevuta bangi?

[ ] a. Sina kaka au dada

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

72. Je, rafiki yako anavuta bangi?

[ ] a. Hapana, hatumii

[ ] b. Ndiyo

[ ] c. Sina rafiki

73. Kati ya marafiki zako, ni wangapi wanaotumia bangi mara moja kwa juma au zaidi?

[ ] a. Hakuna

[ ] b. Wachache

[ ] c. Wengi

[ ] d. Wote

74. Wazazi wako wataonaje iwapo utatumia bangi?

[ ] a. Wataona ni sawa tu

[ ] b. Hawatafanya lolote

[ ] c. Hawatafurahia

[ ] d. Hawatafurahia kabisa

[ ] e. Sijui watonaje

75. Je, baba yako anavuta bangi?

[ ] a. Sina baba

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

76. Je, mama yako anavuta bangi?

[ ] a. Sina mama

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

MASWALI KUHUSU UNUSAJI WA VITU KAMA PETROLI, GUNDI NA KADHALIKA

77. **(**i). Je, umeshawahi kunusa vitu kama petroli, gundi, dawa ya kutolea rangi ya kucha kwa ajili ya kutafuta kusisimka au kuchangamka (kupata nishai)?

[ ] a. Hapana

[ ] b. Ndiyo

(ii)Je, umenusa vitu hivyo katika muda wa mwaka mmoja uliopita

[ ] a. Hapana

[ ] b. Ndiyo

(iii) Je, umenusa vitu hivyo katika muda wa siku 30 zilizopita?

[ ] a. Hapana

[ ] b. Ndiyo

(iv)Ulikuwa na umri gani ulipoanza kunusa vitu hivyo?

[ ] a. Sijanusa vitu hivyo

[ ] b. Chini ya miaka 10

[ ] c. Kati ya miaka 11 na 13

[ ] d. Kati ya miaka 14 na 16

[ ] e. Kati ya miaka 17 na 19

[ ] f. Miaka 20 au zaidi

78. Je, ni mara ngapi unanusa hivi vitu ili kupata nishai?

[ ] a. Sinusi vitu hivi ili kupata nishai

[ ] b. Chini ya mara moja kwa juma

[ ] c. Kila juma lakini sio kila siku

[ ] d. Kila siku

MASWALI YANAYOHUSU UNUSAJI WA PETROLI, GUNDI NA KADHALIKA WA WATU WENGINE

79. Je, kuna kaka au dada yako anayenusa vitu vilivyotajwa iliapate nishai?

[ ] a. Hapana

[ ] b. Ndiyo

[ ] c. Sina kaka au dada

[ ] d. Sijui

80. Je, rafiki yako ananusa vitu hivi vilivyotajwa?

[ ] a. Sina rafiki

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

81. Je,baba yako ananusa vitu hivi vilivyotajwa?

[ ] a. Sina baba

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

82. Je, mama yako ananusa vitu hivi vilivyotajwa?

[ ] a. Sina mama

[ ] b. Hapana

[ ] c. Ndiyo

[ ] d. Sijui

83. Je, wazazi wako wataonaje kama ukinusa vitu hivi?

[ ] a. Wataona ni sawa tu

[ ] b. Hawatafanya lolote

[ ] c. Hawatafurahia

[ ] d. Hawatafurahia kabisa

[ ] e. Sijui watonaje

MADAWA MENGINE

84. Je, umeishawahi kutumia madawa yoyote kati ya haya yaliyotajwa hapa chini?

Maelezo ya kutumia wakati wa kujibu (a) hadi (f)

MADAWA	Sijawahi kutumia	Ndiyo lakini siyo katika mwaka uliopita	Ndiyo mara moja katika mwaka uliopita	Ndiyo,mara 1 - 5 katika siku 30 zilizopita	Ndiyo mara6 - 19 katika 30 zilizopita	Ndiyo mara 20 katika siku 30 zilizopita	Umri ulipoanza kuyatumia	Siijui dawa hii
a.Dawa za usingizi								
b.Unga								
c.Cocaine								
d.Madawa ya kusisimua								
e.Mandrax								
f.Mirungi /miraa								

WRITTEN INFORMED CONSENT-ENGLISH VERSION

Consent to participate in a study titled "Prevalence of substance use and psychosocial influencing factors among secondary school students in Dodoma Municipality."

My name is Dr. Gema Peter Simbee from MUHAS. I am doing my Masters of Medicine in Psychiatry. I am conducting a research as titled above.The aim is to know the magnitude and the factors so that specific intervention can be done. If you agree to join the study, you will be required to answer questions on a questionnaire that will be distributed to you that will take approximately 20 minutes to fill, comprising of questions related to the research. Participation in this study will be completely voluntary. Information obtained from you will be kept confidential and anonymous. No students name will be written on any questionnaire. The information collected will be entered into computers with only the student identification number. The results of the study will be reported as group results.We do not expect that any harm will happen to you because of joining in this study. You may refuse to participate or withdraw from the study at any time. Refusal to participate or withdrawal from the study will not involve penalty or loss of any benefit to which you are otherwise entitled. There will be no specific benefits to you; the results of the study will contribute to the present body of knowledge on substance use among youth and the associated factors.

If you ever have questions about this study, you should contact the principal investigator Dr.Gema Simbee, MUHAS, P.O. Box 65001, Dar es Salaam. In addition, if you ever have questions about your rights as a participant, you may call Professor M. M. Abood, Chairman of the University Research and Publications Committee, P. O. Box 65001, Dar es Salaam. Tel: 2150302-6. If you agree please sign below; and if you do not agree then you do not have to sign it.

I,……have read the contents in this form and understood. I agree to participate in this study.

Signature of research participant……

Signature of researcher…….

Date of signed consent……

WRITTEN INFORMED CONSENT-KISWAHILI VERSION

Ridhaa ya kushiriki kwenye utafiti kuhusu "Utumiaji wa madawa ya kulevya na sababu za kisosio-saokolojia kwa vijana mashuleni katika Manispaa ya Dodoma"

Jina langu ni Dr. Gema Peter Simbee kutoka Chuo Kikuu cha Tiba na Sayansi Shirikishi Muhimbili (MUHAS). Nafanya Shahada ya Uzamili katika Magonjwa ya Akili. Nafanya utafiti juu ya mada iliyoelezwa hapo juu kwa lengo la kujua ukubwa wa tatizo na sababu zinazochangia ili kutafuta njia za utatuzi. Nitafurahi iwapo utashiriki katika utafiti huu,ushiriki wako ni wa hiyari kabisa na madodoso yatatunzwa kwa usiri na hayatakuwa na majina ya wahusika bali namba tu zitatumika. Pia, majibu ya utafiti yatatolewa kwa ujumla wake. Iwapo unakubali kushiriki, utahitaji kujibu dodoso litakalochukua takriban dakika 20 hivi. Kutokana na aina ya utafiti huu hatutegemie wewe kupata madhara yoyote kwa kuwa mshiriki. Pia unaweza kukataa au kujitoa katika ushiriki huu wakati wowote bila kukuletea madhara yoyote. Hakutakuwa na mafao yoyote kwako binafsi kama mshiriki bali ushiriki wako utasaidia kuongeza ujuzi kuhusiana na tatizo hili la utumiaji wa vilevi na hivyo kusaidia kupanga njia za utatuaji wake.

Iwapo utakuwa na swali lolote kuhusiana an utafiti huu unaweza kuwasilian na mimi Dr.Gema Simbee, S.L.P 65001, MUHAS Dar es Salaam; ambaye ndiye mtafiti mkuu wa utafiti huu. Na iwapo utakuwa na swali lolote juu ya haki zako kama mshiriki unaweza kuwasiliana na mwenyekiti wa Kamati ya Tafiti na Machapisho, Profesa M. M. Abood, S.L.P 65001, MUHAS, Dar es Salaam. Tel: 2150302-6.

Kama unakubali kushiriki katika utafiti huu tafadhali weka sahihi yako hapa chini na iwapo hauko tayari kushiriki basi huhitaji kuweka sahihi.

Mimi……..nimesoma maelezo haya na nimeyaelewa vyema; nakubali kushiriki katika utafiti huu.

Sahihi ya mshiriki wa utafiti……..

Sahihi ya mtafiti.……

Tarehe ya kusaini……..