FACTORS INFLUENCING THE PREVALENCE OF KHAT CHEWING AMONG THE YOUTH IN EASTLEIGH ESTATE OF NAIROBI-KENYA

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DECLARATION

I declare that "*Factors influencing khat chewing among the youth in Eastleigh estate of Nairobi-Kenya"* is my own piece of work, that is has not submitted before for any degree or examination in any other university or college, and that all the sources I have used or quoted have been indicated and acknowledged as complete references. This dissertation has been submitted for examination with the approval of my supervisor.

……. …… …….

RESEARCHER **SIGNATURE** **DATE**

……. ……... …….

SUPERVISOR **SIGNATURE** **DATE**

DEDICATION

I dedicate this dissertation to my family:

I am totally indebted to my family; My dearest mom Hellen Mwangi, my loving sisters; Catherine Njuguna and Ann Njuguna and my aunty Susan Mwangi for providing a loving environment. Their constant love and encouragement has gone a long way in making me what I am today. They were instrumental in my decision to start this journey up to the end. *"Thank you for your overwhelming financial, moral and emotional support. I could not have achieved this without your encouragement and support. May God bless shower you with His blessings abundantly. I love u"*

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LIST OF ABBREVIATION/ACRONYMS

WHO-World Health Organisation

MOH- Ministry of Health

SPSS-Statistical package for the social sciences

OPERATIONAL DEFINATIONS

Khat

It is a flowering evergreen shrub containing two mild stimulants: cathinone and cathine whereby its leaves are chewed for its stimulant properties.

Youth

In this study , youth is a person aged between 18-35years of age.

Abstract

Title: Factors influencing the prevalence of khat chewing among the youth in Eastleigh estate of Nairobi-Kenya.

Aim: To assess and analyze the factors influencing khat chewing among the youth in Eastleigh estate of Nairobi-Kenya.

Methodology: The study was carried among 262 youth among the youth in Eastleigh estate of Nairobi-Kenya using a descriptive study design. Respondents were selected using convenience sampling method collecting data on socio-demographic factors, psychological factors, and environmental factors influencing the prevalence of khat chewing. The data was analyzed using SPSS version 16.0.

Results: Findings generated by the descriptive analysis of the 262 respondents revealed that socio-demographic factors that is; Age, gender, education level, income, occupation, religion and marital status, and environmental factors were significantly associated with the prevalence of khat chewing and among the psychological factors peer influence was significantly associated with khat chewing and the rest of the psychological factors were not significantly associated with khat chewing. Among the 262 youth who were interviewed, 194/262(74%) chew khat whereas 68/262(26%) do not chew khat.

Conclusion:

The findings showed that the prevalence of chewing khat was high((74%) in Eastleigh estate in Nairobi-Kenya. Khat chewing was associated with:male sex, low education level, youth of the muslim religion, single, employed youth, those earning a minimum of 6000-10000ksh, History of sexual abuse, peer influence, having ever lived with someone who abused drugs, Khat chewing by a loved one and khat chewing by parents.

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0 Introduction.

This study looks at the prevalence of khat chewing as the frequency of repeated chewing of khat plant leaves among the youths of Eastleigh estate in Nairobi-Kenya. Globally khat chewing is referred to as a ‘‘ natural amphetamine abuse’’ and its effects in animals corresponding with those observed in khat using humans.

World Health Organization (WHO) not only considers the widespread habit of khat chewing as pharmacologically equivalent to amphetamine abuse but it has also included cathinone in its list of controlled drugs (WHO,2002). Similarly, khat use in many European countries and Canada has been restricted or made illegal and is as such classified as a controlled abuse,(Valterio C& Kalix P, 2002).

The availability of khat and its exposure to young people with all the myths of advantages associated with its chewing motivates young people to become addicted to khat chewing, causing a range of health problems to these young people.

This study intends to establish the factors that influence khat chewing which according to other studies done elsewhere include being a source of income, forex earner in some countries,(Adenew,2005); cultural and peer influence,(Griffiths,2002); and weak law/policy enforcement on khat chewing,(Goldsmith,1999). In this case the same factors will be studied in the context of Eastleigh estate where no such study has been done before.

1.1 Background of the study

Khat (Catha edulis) also known as African salad, bushman's tea, gat, kat, miraa, qat, chat, tohai, and tschat--is a flowering shrub native to northeast Africa and the Arabian Peninsula. The plant grows mainly in Ethiopia, Yemen and other African countries along the cost of the Indian Ocean. It has been used for centuries as a mild stimulant. The leaves and stems are consumed by chewing and the cud is maintained in the cheek for a period of time. The taste is described as bitter, although consumers assert higher quality khat has a sweeter taste. The principal alkaloid is *cathinone*, known to be more powerful than the secondary alkaloid, *cathine* (Kennedy, 1987). *Cathinone* affects the central nervous system in a manner ‘‘like a mild amphetamine’’(Graziani et al, 2008;Zaghloul et al. 2003).*Cathinone* degrades rapidly post-harvest, affecting potency. Efficient transportation is thus essential and transport technologies have been the critical determinant of the international market for khat.

The prevalence of khat chewing has been attributed to the easy availability of khat, in Djibouti and Somali land khat is legally consumed but as it is imported politicians often lament that the trade only serves to fill the coffers of their Ethiopian neighbours. In Southern Somalia, khat is widely available although the Union of Islamic courts banned it briefly in Mogadishu in 2006, (Anderson et al, 2007). Khat chewing prevalence is also due to cultural and religious influences because khat has been chewed by muslims during religious ceremonies and during prayer to facilitate contact with Allah (Alem, 2004). Today chewing is common among other religions and in most parts of the country(Gebissa, 2004).

Some of the effects of khat chewing are enhanced concentration, feelings of euphoria and suppression of hunger and sleep(Lemessa, 2001).

Supporters of khat chewing claim it is useful in diabetic patients since it is said to lower the blood glucose, acts as remedy for asthma and eases symptoms of intestinal tract disorders while the opponents claim that khat damages health and affect many aspects of life with adverse social, economic and medical consequences(Graziani et al, 2008).

For most youths chewing khat is a method of increasing energy and elevating mood in order to improve work performance. Khat plants typically are grown among crops such as coffee, legumes, peaches, or papayas. Fresh khat leaves contain cathinone a Schedule I drug under the Controlled Substances Act; however, the leaves typically begin to deteriorate after 48 hours, causing the chemical composition of the plant to break down. Once this occurs, the leaves contain cathine, a Schedule IV drug. Schedule I. This placement is based upon the substance's medical use, potential for abuse, and safety or dependence liability.

- The drug or other substance has a high potential for abuse.
- The drug or other substance has no currently accepted medical use in treatment.
- There is a lack of accepted safety for use of the drug or other substance under medical supervision.

The chewing of khat has been practised for years and is, to a large extent, socially accepted in Ethiopia, Kenya, Madagascar and Somalia; some of these countries are introducing control measures to discourage the cultivation and use of khat.

Apart from the habitual use of khat, it is reported that it is used by students to improve their

academic performance, by truck drivers to keep themselves awake and by labourers to supply the extra vigour and energy they need for their work (3).

The psych-stimulant effect of khat is due to the alkaloid ingredient cathinone, which has a similar structure to Amphetamine (1). Khat is consumed primarily for its amphetamine-like stimulant and euphoric effects.

In Kenya, khat chewing has become a problem of grave national concern as many youths are actively involved in khat chewing , they eventually become addicted and they develop a range of health problems.

1.2 Problem statement

The habit of khat chewing is widespread in certain areas of Kenya and mostly among the youths in Eastleigh estate in Nairobi. The ministry of health in Kenya, the police and the church in the area are trying to make a strong campaign against this habit among people due to the detrimental health effects of khat chewing. This has not yielded much as many youths have become addicts to the habit of khat chewing causing adverse health effects.

According to the Ministry of Health (2005), 5 to 10% of Kenyans are regular drug users. Reports from Kenya Police (2010) indicate that abusers of khat are increasing in the country, especially in the suburbs of Nairobi including Eastleigh Estate area. Generally substance abuse has been more prevalent among Kenyan youths with those abusing khat in particular being 7 to 38%.The prevalence of substance abuse in Eastleigh Estate is however not known.

An array of studies have established that khat plant leaves contain an active psycho-stimulant

substance known as cathinone that is similar in structure and pharmacological activity to amphetamine in affecting the central nervous system . Intoxication with khat is self-limiting but chronic consumption can cause certain health disturbances in the user like gastro-intestinal effects, reproductive effects, central nervous effects and psychological effects among many others. It also leads to social and economic damage to the individual and the community (Cox &Rampes,2003). The availability of khat, young people's curiosity and weak legislation mechanisms against khat trade is leading to exposure of khat among the young people.

This also makes it easy for them to learn how to chew khat thus leading them to become addicted to chewing khat and cascade of psycho-social and health problems begins thereby making the practice of khat chewing a very huge problem which needs urgent attention.

Use of khat is a big health care and economic cost to the country and poses a growing public health problem to the country. Escalation of use of khat leads to reduced productivity of users and they are vulnerable to health problems as well as the increased likelihood to commit crimes. As a result, they become a danger to the society and a burden to the health care system.

Increase in the use of khat has also been attributed to un/underemployment, family disruption, high rates of school drop-outs availability and affordability (UYDEL, 2009).

According to the Population Census (2002) khat are also used for purposes of functionality to reduce fatigue, stress cope with harsh environments in which the users live for instance more than 50% of residents of Eastleigh Estate stay in slums, engage in informal business, they also have low literacy levels (Population census, 2002).

Even with the availability of information on the adverse health effects caused by khat chewing,

khat chewing is still the norm among the youth in Kenya.

The existing body of literature is highly deficient as far as the associated factors and prevalence of Khat use in Eastleigh estate, Nairobi city are concerned. This aim of this study was therefore conducted to establish the extent of use of Khat, and the factors associated with use of Khat among the youth in Eastleigh estate of Nairobi-Kenya in order to address the existing information gap and contribute to existing interventions by the District Health Team and other stakeholders, to control abuse of Khat.

1.3 Broad objective

The main objective of the study is to establish the prevalence and the factors associated with abuse of khat.

1.5 Objectives of the study

The specific objectives of the study are:-

i. To determine prevalence of khat chewing among the youth in Eastleigh Estate, Nairobi-Kenya.
ii. To establish the Psychological factors influencing the chewing of khat among the youth in Eastleigh Estate, Nairobi-Kenya.
iii. To identify the socio-demographic factors influencing the chewing of Khat among the youth in Eastleigh Estate, Nairobi–Kenya.
iv. To determine the environmental factors influencing the chewing of khat among the youth in Eastleigh Estate, Nairobi-Kenya.

1.6 Research Questions

The following research questions will guide the study:-

1) What is the the level of khat chewing among the youth in Eastleigh Estate, Nairobi City ?
2) What are the the Psychological factors associated with khat chewing in Eastleigh Estate, Nairobi City. ?
3) What are the the socio-demographic factors influencing the chewing of Khat among the youth in Eastleigh Estate, Nairobi City ?
4) What are the environmental factors of chewing khat in Eastleigh Estate, Nairobi City?

1.7 Significance of the study

The findings of this study will be used by relevant authorities to increase public awareness of the potential health hazards of Khat chewing; support scientific research on Khat in different institutions and universities and to explore the different effects of Khat on public health and to also integrate education about dangers of Khat chewing into the curricula of the primary and secondary schools, after establishing the key drivers of khat chewing among the youth which is a major aim of this study.

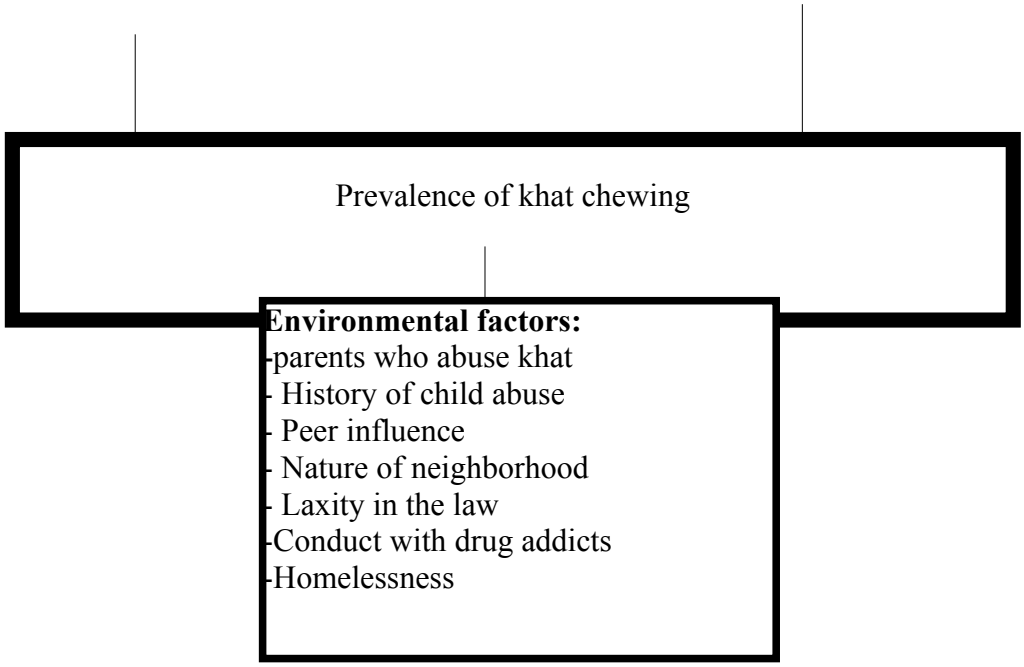
1.8 Justification of the study

Although substance abuse is extensively covered in the existing body of knowledge (UNODC, 2008; WHO, 2006; Rehm & Eschmann, 2002; Harpham & Blue, 1995; Obot & Anthony, 2002; George & Milligan, 2005; Rodhes & Jason, 1988; UNODC, 2004), studies about the prevalence,

factors associated with abuse of khat in Eastleigh Estate, Nairobi City have not attracted much attention. Even the studies conducted about Khat abuse in Kenya have concentrated mainly on alcohol abuse and in areas outside Nairobi District (WHO, 2005), which, surprisingly, is the reported hub for substance abuse (Kenya Police, 2010). As a result, the factors associated with abuse of khat, the prevalence and adverse health effects are not clear in Eastleigh Estate, Nairobi City. Moreover in spite of the improvements in the City's health service delivery (NCC, 2009), substance abuse is increasing (Kenya Police, 2010).

Abuse of khat has been labelled a high cost social problem associated with unproductive and delinquent behaviour (NIDA, 2010). This will make it difficult to achieve the first MDG of poverty alleviation in Kenya if khat is not controlled. Therefore, this study is necessary to provide information that will help stake holders to know the magnitude of the problem and strengthen any existing interventions to control the morbidity and mortality associated with Khat chewing. It will also be used as a basis for future studies on khat chewing by scholars.

1.9 **Conceptual framework**



The conceptual framework above shows relationships between the different factors associated with use of khat. They are categorized into economic, social and demographic factors as well as health outcomes. Economic factors like unemployment can lead to a poor living environment where it is easy to access Khat.

On the other hand living in a family where parents or other family members chew khat can influence the children (WHO, 2010). Demographic factors affect social factors and vice versa.

For instance a person's education level affects the peers he interacts with. If they use khat , he is more likely to adopt the practice than someone whose peers do not engage in such practice. Studies show that gender and age are closely linked to lifestyle and the use of khat (Ihunwo et al 2004;WHO,2010) Men have been found to engage in the use of khat more often than women

(Ageely, 2009). Adverse health effects have been associated with chronic use of khat. Therefore men are more likely to suffer from adverse health effects of khat than women. Low income and unemployment can affect the health care seeking behavior of those with illnesses associated with use of khat. Likewise it is difficult for an individual with cognitive impairment resulting from use of khat to be gainfully employed.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Although information about the prevalence of Khat abuse is abundant globally, that regarding prevalence, associated factors leading to khat chewing is relatively scanty, especially in Eastleigh Estate, Nairobi City. Thus, literature presented in this section is largely cited from scholarly works outside Kenya. It is organized according to the variables of the study.

2.2 Prevalence of khat chewing

Khat is a stimulant drug derived from a shrub, Catha edulis. Catha edulis is a white flowered evergreen shrub found in East Africa and Arabia (NIDA, 2007). It has mildly narcotic properties and its leaves are usually chewed. The main psychoactive ingredients are cathine and cathinone, chemicals that are similar to amphetamines (NIDA, 2007). It has been used to treat various ailments including depression (Glenice & Rampes, 2003)

Khat is commonly used by people in East Africa and the Arabia Peninsula including Yemen, Ethiopia, Somalia, Kenya, Uganda, and Tanzania. Worldwide, it is estimated that 10 millon people consume khat (NIDA, 2007). Studies show that khat use differs by age, sex and occupation. For instance a large study in Yemen showed that 82% men and 43% women reported one lifetime use of khat (NIDA, 2007). Another study in Ethiopia showed that the prevalence of khat use was 50% (Belew, 2000). Ihunwo et al (2004) in a study conducted in South western Kenya showed that khat use was highest among law enforcement officials (97.1%) followed by transporters (9.2%) and students (8.8%).The overall prevalence of khat chewing in all the studied

population was 21.4% (colleges 15.2% versus schools 21.5%). There were 3.8% female khat chewers and 37.70% male Khat chewers. Significant differences were found between khat chewers according to age, gender and residence The prevalence was different in different colleges and in different provinces of Jazan region.

A survey carried out in a rural Ethiopian community found that the prevalence of current khat use was 50%. A study performed in three towns in south-western Uganda showed that the use of khat was highest among law enforcement officials (97.1%), followed by transporters (68.8%) and students (9.2%). The majority of khat chewers were in the age range of 16–25 years. The secondary school and the college age (15–25 years) constitute a critical period of lifetime.

2.3 Socio-demographic factors associated with Khat chewing

In khat-producing African countries Elmi (1983) studied khat chewers in the two main cities in Somalia: Mogadishu and Hargeisa. The results showed that traders and businessmen carried out business transactions during khat parties, whereas for the unemployed it was a way of overcoming feelings of frustration and boredom. In Somalia, Alem et al(1999) found that more men habitually chewed than women: 75% of men chewed khat regularly compared with only 7–10% of women. Kennedy et al's (1983) Yemen studies had similar findings. Overall, it seems that khat is less appealing to women, although in Somalia chewing has recently become more popular among middle-class and educated women.

Muslims and male students were found to have higher odds of chewing khat in a study conducted in Gondar and Butajira among high school students. Male in Gondar had higher odds of khat

chewing than female students. A similar finding reported among secondary school students in Saudi Arabia showed significant differences in chewing between males and females. This might be due to the common tendency of males to abuse substances compared to females and to the greater cultural acceptance of male substance use in Ethiopia and among other khat consuming countries. Even though it is not sanctioned by the religion, as opposed to Christian muslims commonly report using khat to stay awake for prayers. Muslims are the primary consumers of Khat"(Armstrong,2008:638)

In the 19th century, drugs tended to be available where they were produced or very close to the source of production. The growth of transportation, tourism and communication in the 20th century made transportation of goods including drugs and people easy across the world. In a study conducted in south Africa (WHO/UNDCP, 2003) Khat was reported to be easily accessible in both rural and urban areas by 47% and 58% respondents respectively.

Studies further indicate that there are a number of socio-economic factors associated with the global spread and use of Khat. In particular, George & Milligan (2005) found that one of the factors associated with Khat abuse is family and community situations under which people are raised.

Owing to the economic rewards of producing and transporting drugs, drug use has continued to spread throughout the world (MOH 2005; WHO 2002; WHO 2005). It has been estimated that the illegal drug market is worth between US$100-500 billion (Reuter, 1996).Global trends in drug production, transportation and consumption are difficult to describe and evaluate because of the complexities of that issues involved and lack of accurate information on these covert

activities.

A critical synthesis of the foregoing literature indicates that although the factors associated with substance abuse are many, they can be categorised as genetic, psychological, socio-economic, and environmental causes. This is actually supported by the work of the International Council of Nurses (2005). However, the studies from which these causes have been compiled were conducted outside Kenya and in contexts very different from the context of this study. While many of the cited studies focused on the prevalence of substance abuse, others concentrated on adolescents rather and yet others focused on parental care in the prevention of substance abuse. This study was conducted establish the factors associated with Khat chewing in Eastleigh Estate, Nairobi City.

2.4 Psychological factors associated with khat chewing

The pleasure stimulation (euphoria) obtained when chewing khat induces many users to abuse the drug. This may have damaging effects from social and economic point of view. Some people may arrive at spending a great part of their earnings on khat, thus failing to ensure for themselves and their families important and vital needs. Excess of khat chewing may lead to family disintegration.

Predictors of substance abuse have been highlighted to be due to frustration due to unemployment, academic failure, sexual failure, history of sexual abuse, poverty, lack of money for educational opportunities, homelessness, hopelessness,stress, lack of food, lack of proper medical care, adolescence-experimentation, keeping contact with drug addicts, and absence of parents at home due to working, incarceration, separation or divorce (Behrman & Wolfe, 2006;

Bry, Cataglano, EMCDDA, 2010; Kumpfer, Lochman & Szapoczinik, 1998; Kumpfer et al, 1998; WHO, 2005; WHO,2010).

The chewer very often shows irritability, becomes quarrelsome, and spends much of the time away from home. These facts and the failure of sexual intercourse (in male users) after chewing may endanger family life. In the communities where khat is consumed, there is a general agreement among observers that there is high incidence of absenteeism and decreased productivity, which lead to unemployment and poverty. In addition, the increased susceptibility and risk to infectious diseases and the threat to normal development of the children of the chronic users can be important public health problems. Added to these problems are the well-recognized negative socioeconomic effects of the substances that are usually consumed with khat—tobacco and alcohol (1, 6, 8, 17-25).

A south African study conducted among mine workers, 27.8% said that khat could give strength that could help them cope with the heavy workload while 5.4 % said that it could help them plan and work better. About 1.5% of the respondents said that khat helped to make the work easier. A significant proportion (14%) of the respondents in this study also revealed that khat could help relieve stress whereas 13.9% said khat was used for fun (pick et al, 2003).

Community surveys and hospital based studies indicate an increase in drug related health problems, an indication of increase in the drug abuse (NIDA, 2010; Police Report 2010; Police Report, 2000). The world health report (2002) indicates that 8% of the total burden of disease is a result of the use of psychoactive substances.

Much of the burden attributable to substance use and dependence is the result of a wide variety

of health and social problems including HIV /AIDS (WHO, 2006).

There is increasing evidence of harmful health effects and social problems associated with the use of khat. The drug is a stimulant and produces sleeplessness, gastritis and constipation and a depressive mood. Other health effects include: tooth decay, irregular heartbeat, decreased blood flow, myocardial infarction and may worsen pre-existing mental disorders. It also causes increased libido, infertility, decreased lactation. Prolonged use of khat can lead to impotence and causes low birth weight in mothers who chew khat during pregnancy (Dalu, A.2008; NIDA, 2007; Ihunwo et al 2004; Gham et al, 2002).

2.5 Environmental factors associated with khat chewing

In some countries where the use of Khat is widespread, the habit has a deep-rooted social and cultural tradition. This is particularly true for Yemen, Somalia and Ethiopia where many houses have a room called a muffraj, Mafrashi, and Bercha respectively that are specially arranged for regular sessions of Khat chewing. The buyers select from among various types of Khat available, which also vary considerably in price, the most expensive (because the most potent) material being, in general, the freshest and that with the youngest leaves(21,27,31).

For the consumption of Khat in the traditional social setting, the chewers meet in a house some time after noon, usually bringing their own supply. After being welcomed and carefully seated according to their social position, the guests begin to masticate the leaves thoroughly one by one. The juice is swallowed, while the residue of the leaves is stored in the cheek as a bolus of macerated material for further extraction, and is finally ejected. Altogether, each person takes

some 100to 200g of the leaves(6-9birr/100grams); young leaves are most favored, mainly because they are more potent but also because they are more tender to chew. During the session, the group may smoke from water pipes, and there is a generous supply of beverages. The Khat session also plays an important role at weddings and other family events. Khat is frequently used during work by craftsmen, laborers, and especially by farmers, in order to reduce physical fatigue (31). Besides these traditional forms of consumption, Khat is nowadays also chewed by single individuals idling in the streets, particularly in towns and cities where it has been introduced within the last decades. In these regions, Khat is also consumed (sometimes along with alcoholic beverages and other drugs) at gatherings which lack the restraint and well-defined social setting described above(21,30-31).

During the first part of a khat session, there is an atmosphere of cheerfulness characterized by optimism, high spirits, and a general sense of well-being. The excitement brought out by the consumption of khat reduces social inhibitions and causes loquacity. Later, depressive tendencies appear, and a mood of sluggishness prevails. The desirable effects of khat leaves, as perceived by experienced users, are relief from fatigue, increased alertness and energy levels, feelings of elation, improved ability to communicate, enhance imaginative ability and capacity to associate ideas, and heightened self confidence. These effects seem to be more readily perceived by the habitual user.

Lack of parental affection, high levels of harsh criticism and hostility, lax or inconsistent discipline and supervision, and general lack of parental involvement and guidance, all of which provide a foundation for development of aggressive, antisocial behaviour vulnerable to substance

abuse (EMCDDA, 2010). (Boyd, 1999; Boyd,; Flor, Hollett-Wright, McCoy & Donovan, 1999; Jacob & Johnson, 1999). According to Merikangas, Dierker & Fenton (1998), in their studies involving twins, adopted children and children of khat chewing participants found that genetic factors passed onto the children by parents who, themselves, are khat abusers are associated with khat abuse in the offspring.

Other environmental factors associated with khat abuse include have been confirmed in other studies where level of urbanization, residential patterns, laxity in law enforcement, and collusion with law enforcers, peer influence, and nature of neighbourhood to which one is exposed, are all probable predictors of substance abuse (EMCDDA, 2010; Harpham & Blue, 1995; Cardia, 2005; MOH, 2005; Obot & Anthony, 2000; Rodhes & Jason, 1988).

The subjective reasons given for khat chewing in a study that was carried out in North West Ethiopia were to get concentration, peer pressure and for enjoyment among others. Reasons given by college students in North West Ethiopia for starting khat chewing were to keep alert while reading and for relaxation with friends. The main reasons mentioned for starting chewing also included peer pressure and for relieving stress. Other reasons for chewing khat reported in the literature include for religious prayer, to pass time, and to accompany or socialize with family members

CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction

Chapter three describes the methodology used in establishing the factors influencing the prevalence of khat chewing among the youth in Eastleigh estate of Nairobi-Kenya. The chapter explains the study area, target population, the study design, data collection, the sample size and selection, the research instrument and the procedure that was used in obtaining the information. Methods of data analysis and presentation are also included in this chapter

3.2 Study design

A descriptive cross-sectional study design was used to collect data through both qualitative and quantitative methods of data collection. This research design was chosen because it offers information about a population at a given point in time and was also intended to gain immediate knowledge and information on factors influencing the prevalence of khat chewing among the youth in Eastleigh estate of Nairobi-Kenya.

3.3 Study area

Eastleigh estate is a suburb of Nairobi- Kenya. It is located in the east of the Central business district of Nairobi. Eastleigh is predominantly inhabited by Somali immigrants,
It has been described as "Little Mogadishu" due to the high influx of Somalis in the area. It is also as described as "a country within a country with its own economy" on account of its robust

business sector. It also inhabited by other Kenyan citizens but predominantly inhabited by Somalis which means most of the residents are of muslim religion and a few from other religions.

3.3 Target population

The target population was the youth: people aged atleast 18-35years old in Eastleigh estate of Nairobi-Kenya.

3.4 Inclusion criteria

For inclusion, the youth living in Eastleigh estate of Nairobi-Kenya and were aged 18-35years of age and were willing to participate in the study.

3.5 Exclusion criteria

The youth who did not participate in the study included those who did not consent, those who were ill and the ones who were mentally challenged.

3.6 Sources of data

The primary sources of data was got from the youth in Eastleigh estate of Nairobi-Kenya using structured questionnaires which was administered by the trained research assistants to the respondents.

3.7 Sample size determination

The sample size for the quantitative interview was determined using the formula

developed by (Keish and leisle 1965)

$$n = \frac{Z^2 PQ}{D^2}$$

Where;

d- is the precision.(acceptable degree of error)

z- is the standard normal value corresponding to the 95% confidence level ; z = 1.96.

p- is the proportion of the population who use khat or khat.

q = 1-p- those who do not use khat.

DE =Design effect. This was not was adjusted for which led to a smaller sample size and a bigger error in estimating the various parameters.

A report of Mathare Hospital (2008) showed a prevalence of khat use of 19%. The national estimate of prevalence for khat ranges from 0.3-64% (UNODC, 2007). I will ues 19% as the proportion with the desired characteristic based on the Mathare Hospital data for this study. Accordingly, (1-p) which is the proportion of the study population with the undesired attribute, is given as 1 – 19% = 81%.

Therefore:

$$n = \frac{(1.96)^2 \times 19\% \times 81\%}{(5\%)^2} = \frac{3.8416 \times 0.25}{0.0025} = \frac{0.921984}{0.0025} = 236$$

To adjust for non-response of 10% we will divide the estimated sample size by 0.9.

236/0.9 = 262

Therefore, the sample size was 262 respondents.

3.8 Sampling techniques.

3.8.1 Selection of respondents

Convenience sampling method was used to enroll participants into the study. Any youth who consented to participate in the study was recruited consecutively until the required sample size was achieved.

3.9 Research instruments

The research instrument that was used was the questionnaires which was easy to use and could be applied on many respondents. The questions in the questionnaire were closed questions and in English language. Those who did not understand English the concept and the questions were explained to them by the researcher and research assistants.

3.10 Data collection techniques

Data was gathered through an administered interview with the respondents that is the youth in Eastleigh estate of Nairobi-Kenya.

3.11 Study variable

3.11.1 Independent variable

The independent variables in the study were:

- Socio-demographic data (Age, gender, education level, income, occupation, marital status and religion, orphanhood).
- Psychological factors (Hopelessness, Stress, Sexual performance, Academic failure, History of sexual abuse).
- Environmental factors (Peer influence, history of parents who abuse khat, friends who abuse khat, Nature of neighborhood, laxity in the law, conduct with drug abusers).

3.11.2 Dependent variable

- The prevalence of khat chewing among the youth in Eastleigh estate of Nairobi-Kenya.

3.12 Data management

The data collected was coded to increase accuracy and analyzed using SPSS version 16.0.. Descriptive statistics was used such as percentages. Bivariate analysis was used during the analysis and the association between independent and dependent variable was tested using chi-square test.

3.13 Data Quality Control

The data collection tool which was the questionnaire was pre-tested outside the study area to improve the clarity of the question. The research assistants were trained about the objectives of the study and how to collect the data. The questionnaires were checked for completeness and accuracy and they were stored safely after each field day.

3.14 Ethical considerations

Following the approval of the proposal by the university's research committee, permission to carry out the study was sought from the university's research committee. A letter of introduction from the university administration was presented to the chief of Eastleigh estate in Nairobi who granted me permission for the study to be conducted.

I introduced myself to the respondents, and the purpose of this study was concisely explained to the respondents and they were of assured of anonymity, confidentiality and their ability to withdraw from the study at any time. No names or any person's identification numbers was involved in the study. All respondents were allowed to consent first before participating in the study.

To ensure a successful study, the researcher conducted the study in a manner that puts into account the rights of other people on the entire research team. Here the researcher followed a code of conduct that respects the respondents' privacy, the supervisor's advices and any other issues that promoted a normal social behavior in the research period.

CHAPTER FOUR

PRESENTATION OF RESULTS

4.1 Introduction

This chapter gives information about the findings of the study on factors influencing khat chewing among the youth in Eastleigh estate of Nairobi-Kenya. This analysis was done by looking at one variable at a time establishing between the dependent and independent variable.

4.2 Khat chewing prevalence.

Figure 1: Level of khat chewing among the youth in Eastleigh estate.

The figure above figure shows that of the 262 youth who were interviewed, 194(74%) chew khat whereas 68(26%) do not chew khat.

4.3 Socio-demographic factors

Table 1: Socio-economic factors influencing the prevalence of Khat chewing among the Eastleigh Estate of Nairobi-Kenya

Variables	Total	Ever chewed khat		X^2	P-value
		Yes	No		
Age					
18-26	163 (62.2%)	118 (72.4%)	45 (27.6%)	0.36	0.549
28-35	99 (37.8%)	75 (75.8%)	24 (24.2%)		
Sex					
Male	164(62.6%)	131(80.9%)	31(19.1%)	0.8727	0.003
Female	98(37.4%)	62(63.3%)	36(36.7%)		
Education level					
None	59 (22.5%)	51 (86.4%)	8 (13.6%)	39.526	<0.001
Primary	90 (34.4%)	72 (80%)	18 (20%)		
Secondary	76 (29%)	58 (76.3%)	8 (23.7%)		
Tertiary	37 (14.1%)	12 (67.6%)	25 (32.4%)		
Religion					
Muslim	174 (66.4)	155 (89.1%)	19 (10.9%)	70.46	<0.001
Roman catholic	60 (22.9%)	31 (51.7%)	29 (48.3%)		
Protestant	28 (10.7%)	7 (25%)	21 (75%)		

Marital status					
Single	147 (56.1%)	119 (81%)	28 (19%)	16.53	<0.001
Married	93 (35.5%)	63 (67.7%)	30 (33.2%)		
Separated	19 (7.3%)	11 (57.9%)	8 (42.1%)		
Widow/widower	3 (1%)	0	3 (100%)		
Are your parents still alive					
Yes					
No	175 (66.8%)	127 (72.6%)	48 (27.4%)	0.32	0.324
	87 (33.2%)	66 (75.9%)	21 (24.1%)		
If yes, did you grow up with you r parents					
Yes	148 (56.5%)	108 (73%)	40 (27%)	0.11	0.738
No	37 (14.1%)	28 (75.7%)	9 (24.5%)		
If no, were you still a child by t he time your parents died					
Yes					
No	84 (32.1%)	71 (84.5%)	13 (15.5%)	7.071	0.008
	28 (10.7%)	17 (60.7%)	11 (39.3%)		
What is your occupation					
Employed	169 (64.5%)	113 (66.9%)	56 (33.1%)	11.35	<0.001
Unemployed	93 ((35.5%)	80 (86%)	13 (14%)		
How much do you earn in a mo nth?					
3000-5000	56 (21.4%)	46 (82%)	10 (18%)	52.61	<0.001
6000-10000	63 (24%)	53 (84%)	10 (16%)		
11000-15000	40 (15.3%)	24 (60%)	16 (40%)		
16000 and above	29 (11.1%)	4 (13.9%)	25 (86.1%)		

The findings in table 1 above shows that the majority, 163/262(62.2%)of the respondents were aged between 18-26 years and the proportion of the respondents aged 18-26 who chewed Khat was 72.4%(118/262).There is no significant relationship between age and khat chewing. (X^2 =0.36, P=0.549)

Of the 262 respondents under the study, the majority 164/262(62.6%) of the respondents were male and the proportion of the male respondents who chewed khat was (80.9%) 131/262.There is a significant relationship between the sex and khat chewing. (x^2=0.8727, p=0.03)

The majority 90/262(34.4%) had attained primary level of education and the proportion of those who chew khat was (80%) 72/262.There is a significant relationship between education level and khat chewing. (x^2=39.526, p<0.001)

Most 174/262(66.4%) of the respondents belonged to muslim religion and the proportion of those who chew khat was (89.1%) 155/262. There is a significant relationship between religion and khat chewing. (x^2=70.46, p<0.001)

The vast majority, 147/262 (56.18%) of the respondent's marital status was single and the proportion of those who chew khat was (81%) 119/262. There is a significant relationship between marital status and khat chewing. (x^2=16.53, p<0.001)

Of the 262 of the respondents under the study, Most 175/262(66.8%) their parents were alive and the proportion of those who khat were (72.6%) 127/262. There is no significant relationship between the parents being alive and khat chewing. (x^2=0.32, p=0.324)

The majority,148/262(56.5%) of whose parents are alive they grew up with their parents and the proportion of those who chew khat were (73%)108/262.There is no significant relationship between those who grew up with their parents and khat chewing. (x^2=0.11, p=0.738)

Most 84/262(32.1%) their parents died when they were still children and so did not grow up with their parents and the proportion among those who chew khat were (84.5%) 71/262. There is no significant relationship between those who did not grow up with their parents and khat chewing. (x^2=7.071, p=0.005)

The majority, 169/262(64.5%) of the respondents were employed and the proportion of among

those employed and who chewed khat were (66.9%) 113/262. There is a significant relationship between those employed and khat chewing. (x^2=11.35, p<0.001)

Most 63/262(24%)of the respondents who are employed earn 6000-10000ksh and the proportion among those who chew khat were(84%)53/262. There is a significant relationship between those earning 6000-10000ksh and khat chewing. (x^2=52.61, p<0.001)

4.4 Psychological factors

Table 2: Psychological factors influencing the prevalence of Khat chewing among the Eastleigh Estate of Nairobi-Kenya

Variables	**Total**	**Ever chewed khat**		**X^2**	**P-value**
		Yes	**No**		
DO YOU THINK THE FOLLOWING ARE THE REASONS AS TO WHY PEOPLE CHEW KHAT					
Hopelessness in life					
Yes	214 (81.7%)	153 (72.9%)	61 (27.1%)	2.83	0.092
No	48 (18.3%)	40 (83%)	8 (17%)		
Stress					
Yes	234 (89.3%)	173 (73.9%)	61 (26.1%)	0.08	0.776
No	28 (10.7%)	20 (71%)	8 (29%)		
Failure to progress academically					

Yes	206 (78.6%)	144 (70%)	62 (30%)	7.03	0.008
No	56 (2.4%)	49 (87.5%)	7 (12.5%)		
Failure to perform sexually					
Yes	206 ((78.6%)	144((74.6%)	62(89.9%)		
No	56 (21.4%)	49(25.4%)	7(10.1%)	7.028	0.008
History of sexual abuse					
Yes	186 (71.0%)	127 (68.3%)	59 (36.2%)	1.58	0.002
No	72 (29%)	60 (92%)	10 (8%)		
History of childhood abuse					
Yes	222 (79%)	162 (72.9%)	60 (27.1%)	0.36	0.550
No	40 (21%)	31 (77.5%)	9 (22.5%)		
Peer influence					
Yes	207 (95.4%)	143 (69.1%)	64 (30.9%)	10.67	<0.001
No	55 (4.6%)	50 (90.1%)	5 (9.1%)		

The findings in table 2 above shows that the vast majority 214/262(81.7%) of the respondents thought that hopelessness was one factor that leads to the khat chewing and the proportion of the respondents who chew khat was (72.9%)153/262. There is no significant relationship between hopelessness and khat chewing. (x^2=2.83, p=0.092)

The vast majority 234/262(89.3%) of the respondents thought that stress was associated with khat chewing and the proportion among them that chew khat was (73.9%) 173/262. There is no significant relationship between stress and khat chewing. (x^2=0.08, p=0.776)

Most, 206/262(78.6%) of the respondents thought that Failure to progress academically was associated with khat chewing and the proportion among them who chew khat was (70%)

144/262. There is no significant relationship between failure to progress academically and khat chewing. (x^2=7.03, p=0.008)

Majority 206/262(78.6%) of the respondents thought that failure to perform sexually was associated with khat chewing and the proportion who chew khat was (70%)144/262. There is no significant relationship between failure to perform sexually and khat chewing.(x^2=7.03, p=0.008)

Most, 186/262(71%) of the respondents thought that history of sexual abuse was a factor associated with prevalence of khat chewing and the proportion who chew khat was (68.3%)127/262. There is a significant relationship between history of sexual abuse and khat chewing. (x^2=1.58, p=0.002)

Of the 262 respondents under the study, the majority 222/262(79%) of them thought that history of childhood abuse was associated with khat chewing and the proportion among them who chew khat was (72.9%)222/262. There is no significant relationship between history of childhood abuse and khat chewing. (x^2=0.36, p=0.550)

The vast majority, 207/262(95.4%) of the respondents thought that peer influence was associated with prevalence of khat chewing and the proportion among them who chew khat was (69.1%) 143/262. There is a significant relationship between peer influence and khat chewing. (x^2=10.67, p<0.001)

4.5 Environmental factors

Table 3: Environmental factors influencing the prevalence of Khat chewing among the Eastleigh Estate of Nairobi-Kenya

Variables	Total	Ever chewed khat		X^2	P-value
		Yes	No		
Do you have a home where you live					
Yes	223 (87%)	160 (70%)	68 (30%)	11.02	<0.001
No	34 (13%)	33 (97.1)	1 (2.9%)		
Have you ever lived with a per son who abused drugs					
Yes	155 (59.2%)	143 (92%)	12(8%)	67.64	<0.001
No	107 (40.8%)	50 (46.7%)	57 (53.3%)		
Does anyone in your family ch ew khat					
Yes	182 (69.5%)	163 (89.6%)	19 (10.4%)	77.64	<0.001
No	80 (30.5%)	30 (37.5%)	50 (62.5%)		

Do your significant others use khat					
Yes	135 (51.9%)	124 (91.9%)	11 (8.1%)	48.10	<0.001
No	126 (48.1%)	68 (54%)	58 (46%)		
Do any of your parents chew khat					
Yes	152 (57.8%)	136 (89.5%)	14 (10.5%)	53.83	<0.001
No	110 (42.2%)	55 (50%)	55 (50%)		
Do the police and local authorities in your area discourage khat chewing					
Yes	26 (9.9%)	18 (69%)	8(31%)	0.29	0.589
No	236 (90.1%)	175 (74.2%)	61 (25.8%)		
Have you ever been informed of any law that prohibits khat chewing?					
Yes	37 (14.1%)	30 (81.2%)	7 (18.8%)	1.22	0.269
No	225 (85.9%)	163 (72%)	62 (28%)		

The findings in table 3 above show that the vast majority 223/262(87%), of the respondents have a home where they live and the proportion which chew khat was (70%)160/262. There is a significant relationship between those who have a home where they live and khat chewing. (x^2=11.02, p<0.001)

The vast majority 155/262(59.2%) of the respondents had ever lived with someone who abused drugs and the proportion who chew khat was (92%) 143/262. There is a significant relationship between those who have ever lived with someone who abused drugs and khat chewing. (x^2=67.64, p<0.001)

Majority, 182/262(69.5%) of the respondents have someone in their family who chew khat, and

the proportion who chew khat was (89.6%)163/262. There is a significant relationship between those whose any of the family member chew khat and khat chewing. (x^2=77.64, p<0.001)

Most, 135/262(51.9%) of the respondents their significant others chew khat and the proportion that chew khat was (91.9%) 124/262. There is a significant relationship between the respondent's significant others chewing khat and khat chewing. (x^2=48.10, p<0.001)

The vast majority, 152/262(57.8%) of the respondents their parents chewed khat and the proportion that chew khat was (89.5%) 136/262. There is a significant relationship between the respondent's parents chewing khat and khat chewing. (x^2=53.83, p<0.001)

The vast majority, 236/262(90.1%) of the respondents say that the police and local authorities do not discourage khat chewing and those who chew khat was(74.2%)175/262. There is no significant relationship between the police not discouraging khat chewing and khat chewing.(x^2=0.29, p=0.589)

The majority, 225/262(85.9%) of the respondents have never been informed of any laws that prohibits khat chewing and those who chew khat(72%) 163/262. There is no significant relationship between laws prohibiting khat chewing and khat chewing. (x^2=1.22, p=0.269)

CHAPTER FIVE

DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter is focusing on the discussion, conclusion and recommendations basing on the specific objectives of this study. In this chapter, the researcher attempts to compare findings of the study with findings of various scholars who were cited in the literature review.

5.2 Prevalence of khat chewing:

In this study it was found out that the prevalence of khat chewing was 74% in Eastleigh estate of Nairobi-Kenya.The prevalence was higherthan that of a study that was carried out in Ethiopia in 2000 which stated that the prevalence was 50%. Studies in Ethiopia, Kenya and Yemen among the general population also showed that khat was the most commonly used illicit drug (Dalu, 2008).

5.3 Factors associated with khat chewing:

In this study a number of factors were found to be associated withkhat chewing. The main ones are highlighted in the following sections:

5.3.1. Socio-demographic factors:

In the study findings it was found out that the majority of the youth who chew khat were male. This was consistent with other studies (NIDA, 2007) in Yemen which stated that 82% of male chewed khat once in their lifetime and also consistent with the study that was carried out in

Somalia, (Alem et al 1999) which found out that more men habitually chewed khat than women:

75% of men chewed khat regularly compared with 7-10% of women.Higher prevalence in men chewing khat can be due to believing that khat is associated with improving performance and work capacity so they chew it in order to improve performance. It is also believed to improve male sexual performance so that also contributes to more men chewing khat as compared to women.Unemployed men take it as a way to overcome feelings of frustration and boredom.

Majority of the respondents, their education level is upto primary and the khat prevalence among them is high.The findings in the study indicate that most youth in Eastleigh estate were mainly of low education background. There was a statistically significant association between level of education and khat chewing. This is because they might not have been exposed to adequate information regarding health effects related to khat chewing, other reasons for this could be associated with urban migration and poverty, whereby the youth engage in stressful less skilled work and live in poor conditions.

In the findings of this study majority of the khat chewing youth belong to themuslim religion. This is in line with studies conducted in Gondar and Butajira among high school students anda study carried out in Somali:“Muslims are the primary consumers of Khat”(Armstrong,2008:638). This can be because they need to stay awake for night prayers, some believe that chewing khat facilitates contact with Allah when praying and khat chewing is also chewed during the muslims’ ceremonies.

In the findings of this study it was found out that among the respondents majority of the khat chewers' marital status was single. There is no previous study elsewhere that have found out the relationship between marital status and khat chewing.

Majority of the respondents in this study were employed. There are no studies that agree or disagree with the findings in this study.

Majority of the respondents who chew khat in Eastleigh estate earn a minimum of 6000-10000 kenyan shillings. There is no previous study elsewhere that have found out the relationship between marital status and khat chewing.

5.3.2 Psychological factors

According to the findings in this study it was established that majority of the youth think that history of sexual abuse and peer influence are associated with prevalence of khat chewing this is consistent with the study carried out inby Behrman & Wolfe, 2006: Bry, Cataglano, EMCDDA,2010. It is also in line with the studies carried out in North West Ethiopia by Ayalu a. et al , 2013 which stated that peer pressure is among the major reason associated with khat chewing. This can be so that they may be able to fit in among their friends, to also fit in during social and cultural activities and to also enhance Social interaction.

5.3.3 Environmental factors

Regarding the results of this, it was found out thatmajority of the khat chewers have a home where they live, there are no studies showing the relationship between having a home to live in

and khat chewing.

The study also showed that having ever lived with someone who abused drugs was related to khat chewing. This is consistent with a study that was carried out by Behrman & Wolfe,2006: Bry,Cataglano, EMCDDA,2010 that stated having contact with drug addicts contributed to khat chewing. This is because they would want to fit inamong the friends and would need a sense of belonging to social networks.

Findings in this study show that having any family member who chewed khat contributed to an individual chewing khat. This is consistent with. This finding is in agreement with the findings among Gondar high-school students, youth from Butajira in southern Ethiopia (Ayalu A. et al,2012)

The findings also showed that majority of those chewing khat their parents chewed khattoo.This study is consistent with the study carried out in Butajira in Southern Ethiopia(Ayalu A.et al,2012) and the study also agrees with a study that was carried out in secondary schools in Kabalore whereby khat chewing among the students was due to their parent's influence.(Waiswa, 2001; Havell, 2004).Parental guidance and monitoring plays a very crucial role in the development of a child so if a parent is chewing he/she will influence the child too to chew khat since parents have a significant influence on their children

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Introduction

This chapter gives the study conclusions that are drawn from the study and the recommendations based on the discussion and findings of the study.

6.2 Conclusion

From this study, the findings showed that the prevalence of chewingkhat was high((74%) in Eastleigh estate in Nairobi-Kenya. Khat chewing was associated with:male sex, low education level, youth of the muslim religion, single, employed youth, those earning a minimum of 6000-10000ksh, History of sexual abuse, peer influence, having ever lived with someone who abused drugs, Khat chewing by a loved one and khat chewing by parents.

6.3 Recommendations

The prevalence of khat chewing among the youth in Eastleigh estate of Nairobi-Kenya is 194/262 respondents. Findings from this study suggest the need for a multi-sectoral approach with the objective of preventing and reducing khatchewing among the youth in Eastleigh estate of Nairobi-Kenya. The following are recommendations:

•The government of Kenya should enact and enforce restrictive measures because khat is affordable and available making it easy to get it in Eastleigh estate.

•The ministry of health of Kenya should design mass health education programs and messages specifically designed to outline the health effects brought about by khat chewing.

- The ministry of health-Kenya should hold health education talks to increase public

awareness of the potential health hazards of Khat chewing.

•The ministry of education-Kenya should strengthen education programs since the youth with low level of education according to this study were more likely to chew khat and they also integrate education about dangers of Khat chewing into the curricula of both the primary and secondary schools

•Nairobi City Council Health Team in collaboration with the police , Ministry Of Health and NGOs should embark on massive community sensitisation about the health effects of khat.

•Family role models were found to be a significant predictor of khat chewing use so prevention programmes should target the whole family.

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APPENDIX I:

RESEARCH CONSENT FORM

Introduction:

My name is Loise Waigwe Njuguna. I am a student from International Health Sciences University, School of Nursing. We are looking for information about chewing of khat in this area. The information you give us will help us know how this problem is so that we can find ways of managing this problem. Your selection to participate in this study is by chance alone and your responses will be treated with confidence. The responses you give will not reveal your identity to anyone not part of this study. Any publication of such information will conceal your identity. You are free to withdraw your participation at any time of the study without any penalty.

We request that you participate in this study. If you agree to participate, please give us your true opinion / knowledge about the questions that will be asked. If you do not understand what has been asked, you can ask us to clarify the question. This will take about 25 minutes of your time. Please do not hesitate to ask if you have any questions concerning this matter.

All information given will be confidential ..

Have understood? Yes No

Do you agree to participate Yes No

APPENDIX II: *QUESTIONNAIRE*

Factors influencing the prevalence of khat chewing among the youth in Eastleigh estate of Nairobi-Kenya.

Questionnaire No:……. Date:……

This questionnaire is about Factors influencing the prevalence of khat chewing among the youth in Eastleigh Estate of Nairobi-Kenya. The information you will give us will be used to help in developing programs to control the abuse of khat. The information provided will be confidential and hence you do not need to tell us your name. We however request you to give correct information to the questions that follow.

SECTION A

The following questions are about your social- demographic characteristics

1. Age 1. 18-26 2. 27-35

2. Sex 1. Male 2. Female

3. What is your education level?

1. None
2. Primary
3. Secondary
4. Tertiary

1. Religion
    1. Muslim
    2. Roman catholic
    3. Protestant
    4. Others (specify)

2. What is your marital status?

1 .Single
2. Married
3. Separated
4. Widow/widower

3. Are your parents still alive?

1. Yes 2. No

4. If Yes, did you grow-up with your parents?

1. Yes 2. No

5. If No, were you still a child by the time your parents died?

1. Yes 2. No

6. What is your present occupation?
    1. Employed
    2. Unemployed

7. How much do you earn in a month?

1.3000-5000ksh ☐

2.6000-10000ksh ☐

3.11000-15000ksh ☐

4.16000 and above ☐

SECTION B: The following questions are about prevalence of khat use:

8. Do you currently chew khat?

1. Yes ☐ 2. No ☐

9. If No, have you ever chewed khat?

1. Yes ☐ 2. No ☐

SECTION C: PSYCHOLOGICAL FACTORS

Do you think the following are the reasons as to why people chew khat:

10. Hopelessness in life:

1. Yes ☐ 2. No ☐

11. Stress:

1. Yes ☐ 2. No ☐

12. Failure to progress academically:

1.Yes ☐ 2. No ☐

13. Failure to perform sexually:

1. Yes ☐ 2. No ☐

14. History of sexual abuse:

1. Yes ☐ 2.No ☐

15. History of childhood abuse:

1. Yes ☐ 2.No ☐

16. Peer influence:

1.Yes ☐ 2.No ☐

SECTION C: ENVIRONMENTAL FACTORS:

20.Do you have a home where you live?

1. Yes ☐ 2. No ☐

21.Have you ever lived with a person who abused drugs?

1. Yes ☐ 2. No ☐

22.Does any one in your family chew khat?

1.Yes ☐ 2. No ☐

23.Does your significant other use khat?

1. Yes ☐ 2. No ☐

24.Does any of your parents chew khat?

1.Yes ☐ 2. No ☐

25.Do the police and local authorities in your area discourage khat chewing?

1.Yes ☐ 2. No ☐

26.Have you ever been informed of any law that prohibits khat chewing?

1.Yes ☐ 2.No ☐

Thank you for your valuable time

END