

**EFFECTS OF KHAT FARMING TO REGULAR SCHOOL ATTENDANCE IN
SECONDARY SCHOOLS IN IGEMBE CENTRAL, MERU COUNTY. KENYA**

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DECLARATION

This research project is my original work and has not been presented for award of any degree in any other university.

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DEDICATION

I dedicate this research project to my loving parents, Ancity Muthoni and Francis Mutegi for their full support in my academic work and believing in me.

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ABBREVIATONS AND ACRONYMS

UNESCO	United Nation’s Educational Scientific and Cultural Organizations
NACADA	National Agency for Campaign Against Drug Abuse
W.H.O	World Health Organization
SPSS	Statistical Packages for Social Sciences
KEMRI	Kenya Medical Research Institute
Ksh	Kenyan Shilling

OPERATIONAL DEFINATION OF TERMS

Khat - widely known also as miraa

Khat consumption- this is basically the chewing of khat.

Khat Plucking- this is the act of cutting off the young twigs from a khat plant.

School attendance- this is the act of enrolling and beginning academic life as a Student.

ABSTRACT

This study was meant to assess the effect of khat farming on regular school attendance in secondary school. In Igembe Central, khat farming is a major economic activity where both the young and the old are actively involved. In this case, students are involved where some have to skip some classes. Chewing of khat is observed in both men and women. Khat was traditionally used in dowry payment among the Meru community. It. The study sought to investigate the relationship between regular school attendance and khat farming. The study was conducted in Igembe Central, Meru County as it's a region where khat farming is the business of the day. The study employed descriptive survey research design; it used survey method of collecting data by administering questionnaires to the sampled subjects. The study was conducted in kaurine day secondary school. The researcher employed random sampling as it is simple and convenient. Pre -testing was conducted before the actual study to check on the reliability of the instruments. The collected data were fed in Statistical Package for Social Sciences (SPSS) for analysis.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter entailed the following sub-topics which were the basis of the research; Background of the study, Purpose of the study, Conceptual framework, Objectives of the study, Research questions, Significance of the study, Scope of the study and lastly, Limitations of the study.

1.2 Background to the study

Khat also known as miraa is a shrub plant grown in Kenya and other countries, for example, countries bordering Red sea on the east coast of Africa. It's also scientifically known as *Catha edulis*. It is popularly grown and consumed plant in Yemen, Ethiopia and Kenya (kassim, 2010). Khat farming in Kenya is an activity carried out in some regions of Meru county and Embu county. The plant is grown for consumption by locals and also for export to other countries for example it's exported in Somali, Egypt among other countries within and beyond Africa. Khat having a wide market, it entails a lot of labour hence it involves the members of the society heavily in growing, maintaining, plucking, packing and selling. In this case both young and old are involved in respective areas. The school going students are involved in the exercise either direct or indirectly. They give a hand, in preparing meals for the workers or babysitting the young ones after the parents get to work. Students being actively involved in the farming activities, in return they also consume khat, being students, this will alter their concentration in class work. However, the income from this economic activity caters for school fees payment of these students and also ensuring the wellness of the family by ensuring all other basic needs are met and the luxuries according to the family ability.

1.3 Statement of the Research Problem

Khat farming being an agricultural and economic activity it has a negative effect on the regular

school attendance of the most of the students in the region due to various reasons for instance financial status at home which lead to need for higher income. Some are forced to involve themselves in khat farming partly as they study. This alters their concentration in class work.

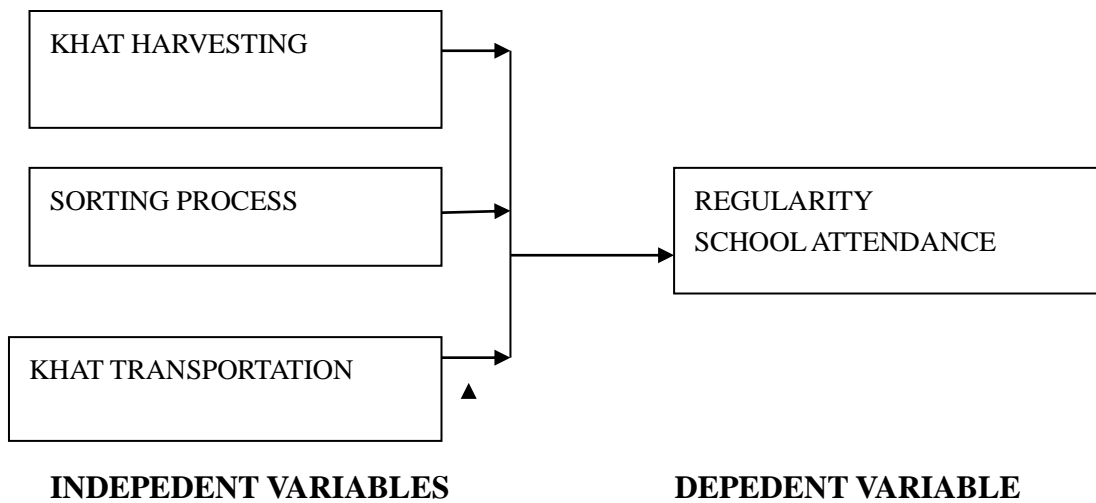
According to the world health organization (WHO) who categories khat under drugs, it may affect body organs as it comprises different compounds. These toxic effects include general body malaise, irritability, and impaired sexual potency in men, increased body pressure, constipation and anorexia (fox 2003). Increased blood pressure has been reported in miraa chewers (Hassan 2000). Chronic use of khat may lead to decreased sexual function and impotence (Mwenda 2003).

Nigussie 2013 reported that the prevalence of gastrointestinal disorders was found to be higher among khat chewers.

1.4 Purpose of the study

The study was meant to clearly find out how khat farming is affecting the regular school attendance of the students. The study used a comparative analysis of learners who are in day schools but from a different region and are not involved or affected directly by any activity concerning miraa farming to the learners who are in day schools and are actively involved in khat farming and consumption. The researcher sought to establish some measures that can put in place to ensure regular school attendance by the students.

1.5 Conceptual framework



1.6 Objective of the study

General objective

- (i) Investigate the effect of khat harvesting on school attendance

Specific objectives

- (i) Find out the effects of sorting process of khat on school attendance
- (ii) Investigate the effects of transportation of khat farming to school attendance
- (iii) To ascertain the effect of wrapping process on regularity of school attendance.

1.7 Research questions

The following are the questions that guided the researcher to achieve the objectives of the study;

- i) To find out if khat harvesting has effect on regular school attendance.
- ii) To investigate whether the sorting process has effect on regular to school attendance.
- iii) To find out whether transportation of khat farming has influence on regularity of school attendance.
- iv) To investigate if the wrapping process has influence on regular school attendance.

1.8 Significance of the study

Data collected from this research benefited the students, teachers and parents. It enlightened the students on the health effects of khat consumption and how it negatively interfered with their regular school attendance. The teachers also benefited by realizing the specific areas that they can reinforce to ensure regular school attendance. Parents also benefited where they got the areas of emphasis concerning their children's regularity in school attendance.

1.9 Scope of the study

The research was conducted in Igembe Central, Meru County -Kenya. It was limited to selected day schools within the region. This is a region that is deeply subjected to khat farming and education standards are not well upheld due to exposure and huge income from khat farming by young people who are barely learners. Many youths are semi-illiterate and lack enough knowledge on the harm they are putting themselves into by dropping out school for khat farming and consumption. The researcher therefore intended to limit herself in this region as the community has adored this economic activity than education

1.10 Limitations of the study

The researcher was psychologically ready to face challenges in the field during the study that was; lack of response from the target population unanswered questionnaire and lack of clear information from the respondents. In that case the researcher was therefore set to put in place clear strategies such

as simple questionnaire and involving the target population prior to interview to be psychologically ready to answer questionnaires and also give clear, accurate and relevant information during interviews. Khat farming being a major economic activity the researcher is thus set to use polite language during investigation to avoid annoying the respondent during the research process since the activity was the main bread winning activity in the region.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This is the review of literature on khat farming. In this chapter the research thematically discussed the research objectives which included: investigation on income earned from khat farming, find out the effect of khat selling, investigate the effect of khat harvesting and ascertain the effect of khat consumption on regularity of school attendance. The researcher also looked at other theories based on the research topic and the summary of the identified gaps in the reviewed literature.

2.2 Literature review

According to Mwaniki (2006) after 1910, the khat took part in what could be termed as external trade by taking advantage of the forced union of many ethnic groups after "pacification". This activity has led to economic and social wellness of the individuals and the countries involved. For the increased demand and for the sake of supplying enough the enlarged market, school going children is also involved according to Armstrong & Edward (2008). Most of the traders are involving school going children to boost trade as one of the few ways too booster profit due to their low cost of having children. Through a study that have been conducted by the government of Kenya and KEMRI to miraa consumption has been declared safe for consumption a study conducted in two years in Meru and Embu.

Khat chewing chasing often reported to be in the afternoon (Aden 2006) and if this time is multiplied to the number of times one will get into chewing khat a lot of time is wasted and it is inevitable. Khat trade is associated with a lot of observers both and academic and lay with breakdown of family life, prostitution which is the host of social evils (Beckerleg, 2008). In Ethiopia khat chewing always play a dominant role in celebrations, meetings, marriage and other gatherings. Khat consumption has got

its own implications. The main toxic effect includes; increase blood pressure tachycardia, insomnia, anorexia, constipation, general malaise, irritability, migraine and impaired sexual potency in men (Shikuru L. Babu & SM (2009). Khat chewing, just like coffee is a stimulant used to improve on the alertness and performance (Masons 2014). Night shift workers such as watchmen and truck drivers chew miraa so that they can stay awake the whole night and postpone fatigue (Aden 2006). A significant number of students also chew khat so that they can stay awake especially during examination time (Douglas, 2011; Masoud 2014). In Kenya khat chewing as become part of the youth culture (Neil carrier. 2005). The children who are involved in khat selling activity, in case of any mistake done, it is observed that they are severely beaten (Manuelli, 2006)

2.3 Khat harvesting

In khat harvesting, which is plucking out the required khat from the plant itself, is an activity that requires a lot of laborers in which young people are actively involved. According to Waikenda (2006) parents prefer to go with their children in farms so that they can make higher incomes. In 2010 the US office of labor reported that cotton was highly grown by the school going children where they assisted their parent (Radio free Europe, 2010) According to Human Rights (2001) more than one million school going children in rural areas are hired in cotton farms to fight against worm infestation, which takes around eleven hours per day thus affecting their school attendance. According to Joshua (2009) similarly, in Kenya children are involved in various farming activity.

2.4 Khat sorting

After plucking khat, it has to be sorted according to the quality, where it is arranged

With it stalks facing the same direction.

According to the survey conducted in Canada it indicated health, development issues and child labour from the children that are employed outside their homes (state of committee on statistics of Canada 2007:120). A study in south Texas comparing migrating and non-migrating students showed that migrants are more likely to miss or arrive late in school, sleep in class, study for few hours and minor illness more frequently due to their engagement on grading fruits (cooper 2008) In Germany it was concluded that the students who are involved undergo significant educational losses, accumulating to two months of their schooling each year (NACADA, 2006).

2.5 Khat transportation

Jordan is known for its dominance in involving school going students in the transportation of agricultural products where 20% are engaged promoting agricultural productions through transportation of various products, therefore these students could fail to attend classes (Rimawi, 2001). According to (M'mucheke 2001) transportation of khat is mainly via legwork where young people who are mainly students carry it from the farms to distribution points. Many trek to town daily with the load balanced on their head.

2.6 Khat wrapping

According to NCFH (2010) in Colombia, at an age of 14, school-going children spend most of their time at home on agricultural occupation.

At an age of 16 minors can perform any farm job, including those declared hazardous by the secretary of labour, they perform the task at any time, including school hours (ILO, 2010). The school going children are the most used in agricultural task such as wrapping. According to Oxfam America (2004) due to the need for more income, parents allow their children to go and work with

them. If children are taken from school to take part in planting a growing, the working becomes harmful since it is destructing their education (Moyi, 2013)

2.7 Theoretical framework

Exploitive child labour theory

This study was guided by a theory by Kenneth and Swinnerton,” Exploitive child labour”. Sometimes parents are less concerned by the work their children are about to do especially during employment opportunities. Some firms may or may not exploit the working children. Work is beneficial to a child if it allows her to achieve or to acquire certain skills. Sylvain Dessy and stephane Pallage (2005) suggest that some children get into exploitive work because they are well paying than other jobs available for children.

The time spent working makes it difficult to see the benefits of education neither gaining the patience to remain in school until graduation time.

2.8 Summary of the identified gaps

According to Prof. George Muthaa 2011, khat chewing among men in Igembe region is rampant and has a lot of negative impacts to them. Lack of sleep and hallucination is among the major challenges coming with khat consumption.

According to KEMRI 2017 edition, khat is a drug which as per the law should be declared a drug and measures taken by the government to counter this.

The researcher will thus center herself in investigating the effects of khat farming to academic farming.

For the future researchers, a lot is still not tacked about khat and she encourages them to venture and

find out more about khat.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the researcher was looking at the methodology to be used during the research process. In this the researcher was looking at: research design, target population, sample size and sampling techniques, data collection, instruments reliability, data collection procedure and data analysis techniques.

3.2 Research design

The researcher used survey design where survey gathers data at a particular point in time with the intentions of describing the nature of existing conditions, identify standards against which existing conditions can be between specific events Manion and Cohen, 1989).

It was the appropriate design as the researcher gathered data at a certain point in time where events had occurred. Survey provided account for characteristics e. g knowledge for particular individuals, belief, behaviors and opinions.

According to Grewal and Levy, (2009) survey is a systematic means of collecting information from people that generally use questionnaires. The design was chosen the meet the objectives.

3.3 Target population

The study population included students from Kaurine day school and teachers from the school. Leedy (1993) observed that nothing comes out of a long and involved study that is any better than the careful selection of population using random sampling and stratified random sampling.

The target population was one day secondary schools, in which ten teachers were involved.

3.4 Sampling technic

According to Wierman (1986) a sample is a subset of population to which research intends to

generalize the result. The researcher employed random sampling as it was simple, convenient and free from biasness in selection process. It enabled each member of the population to have an equal and independent chance of being selected as respondent, (Frankel, 2000)

3.5 Sample size

Sample size is the measure of subjects in a research study that are used in representation of target population (Webster, 2014). Where the population is too large one has the need to select a certain number of subjects for the purpose of study. Using Mugenda and Mugenda sampling technique the researcher used 30% of the total population. For instance, in the school where it had a total population of 200 It had sample size of 60 students

SCHOOL	no. of student's	sample
Kaurine secondary school	200	60

3.6 Pre-testing

Pre-testing or piloting was necessary so as to establish the reality of instrument being used. In this case the researcher chose twenty students from three nearby schools whose characteristics match the schools in the actual area of study. In this case the researcher was able to verify the accuracy and consistency of the research instrument. The researcher had a chance to identify and get rid of any ambiguous information. In such a state the researcher was easily able to identify the weaknesses of the final instrument and correct them.

3.7 Validity and reliability

In order to test validity on an instrument pre-testing was be conducted to assist determining the accuracy, clarity and suitability of research instrument. According to (Borg and Gall, 1989) three

cases are sufficient pilot study and since subject in the research are homogenous ten cases will be reasonable. Pre-testing enabled the researcher to identify errors for instance ambiguity of the questionnaire, so that corrections could be made.

On the other hand, (Mugenda 1999) defined reliability as measures of the degree to which the research instrument yielded consistent result on repeated trials. Reliability of the questionnaire used was tested through test-retest method which was be piloted before the actual study.

3.8 Data collection

The researcher collected data from teachers and students after being permitted by relevant authorities. When the researcher was supposed to go and visit the school, she informed the management of the school and the respondents about the study and booked an appointment with them. Using the fore-mentioned instrument the researcher went for data collection.

3.9 Data analysis

Data from the field were being fed in to statistical package software for social sciences (SPSS) for analysis. The data was also being checked if it is complete, accurate, precise and relevant.

3.10 Logistics and ethical considerations

To observe ethical considerations, the researcher informed the respondent on the research she was doing.

The researcher sought permission from the relevant authorities. The respondents' names could not be disclosed unless there was an agreement. The study strived to achieve integrity and honesty (Shamoo and Resnik 2009). The researcher also ensured that no careless mistakes occurred and also ensure good recording of research activity, she also avoided any form of biasness and up hold sincerity and integrity

CHAPTER FOUR: DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter is a detailed account of findings, interpretation and discussion of results based on the objective on the study to establish to establish the effects of khat consumption to academic performance of the students.

The presentation is based on the following objectives;

- To find out the effects of khat harvesting to school attendance.
- Investigate whether khat sorting has effect on school attendance.
- Investigate whether khat transportation has effect on school attendance.
- To ascertain the effect of khat wrapping and packing process to regularity of school attendance.

The data collected from the field were coded and analyzed through Statistical Packages for Social Sciences (SPSS).

4.2 Demographic Information

There was background information collected from the general overview of the study that helped in interpretation of the study. It helped to understand the logic background factors of the respondents which aided in interpretation of various response.

4.2.1 Response by gender

The study sought to find the gender of respondents (students) in order to balance the compare the views of the both genders during the study. The figure below demonstrates the gender representation in the study.

Figure 4.1 responses by gender

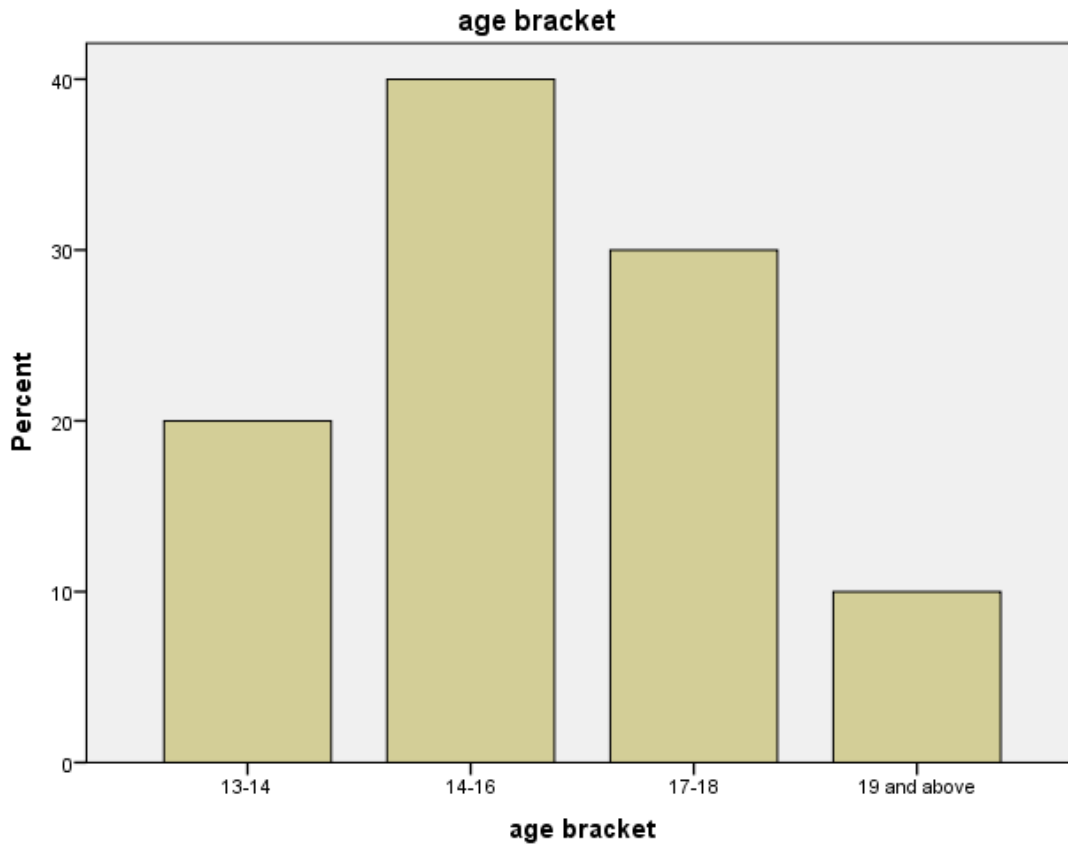
	Frequency	Percent
Male	36	60.0
Female	24	40.0
Total	60	100.0

The study result shows that out of sixty respondents 36 were male which a sixty percent of the total participants was while females were 24 which was a 40%. This implies that there was no biasness since both genders were involved.

4.2.2 Response by age

The study sought to find out the age of respondents as illustrated in the figure below

Figure 4.2 responses by age



The study showed that out of 60 respondents, which is 100% the respondents who were between (13-14) years were 20% which is a total number of 12 students. The respondents between (15-16) years were 40% which is a total number of 24 students. The respondents between (17-18) years were 30% which is a total number of 18 students. The respondents above the age of 19 years were 10 % which is a total number of 6 students.

4.3.3 Respondents involved in growing khat

The study sought to know the number of families involved in growing khat. The table below is an illustration of the same. From the respondents 73% of the families are involved in growing khat while 26% of the respondents don't grow khat. This is a clear indication that many of the residents in this area are involved in miraa trade

Do you grow or buy miraa in your family?

	Frequency	Percent
Yes	44	73.3
No	16	26.7
Total	60	100.0

4.4 Harvesting and school attendance

The study sought to find out whether the harvesting of khat had impact to the regular school attendance. The table below is an illustration of findings. In involvement in khat harvesting 10% strongly agreed that they are involved in khat harvesting, 40% agreed, 30% disagreed while 20% strongly disagreed.

I always help my family in miraa farming

	Frequency	Percent
SA	6	10.0
A	24	40.0
D	18	30.0
SD	12	20.0
Total	60	100.0

The findings on the figure below indicated the despondence

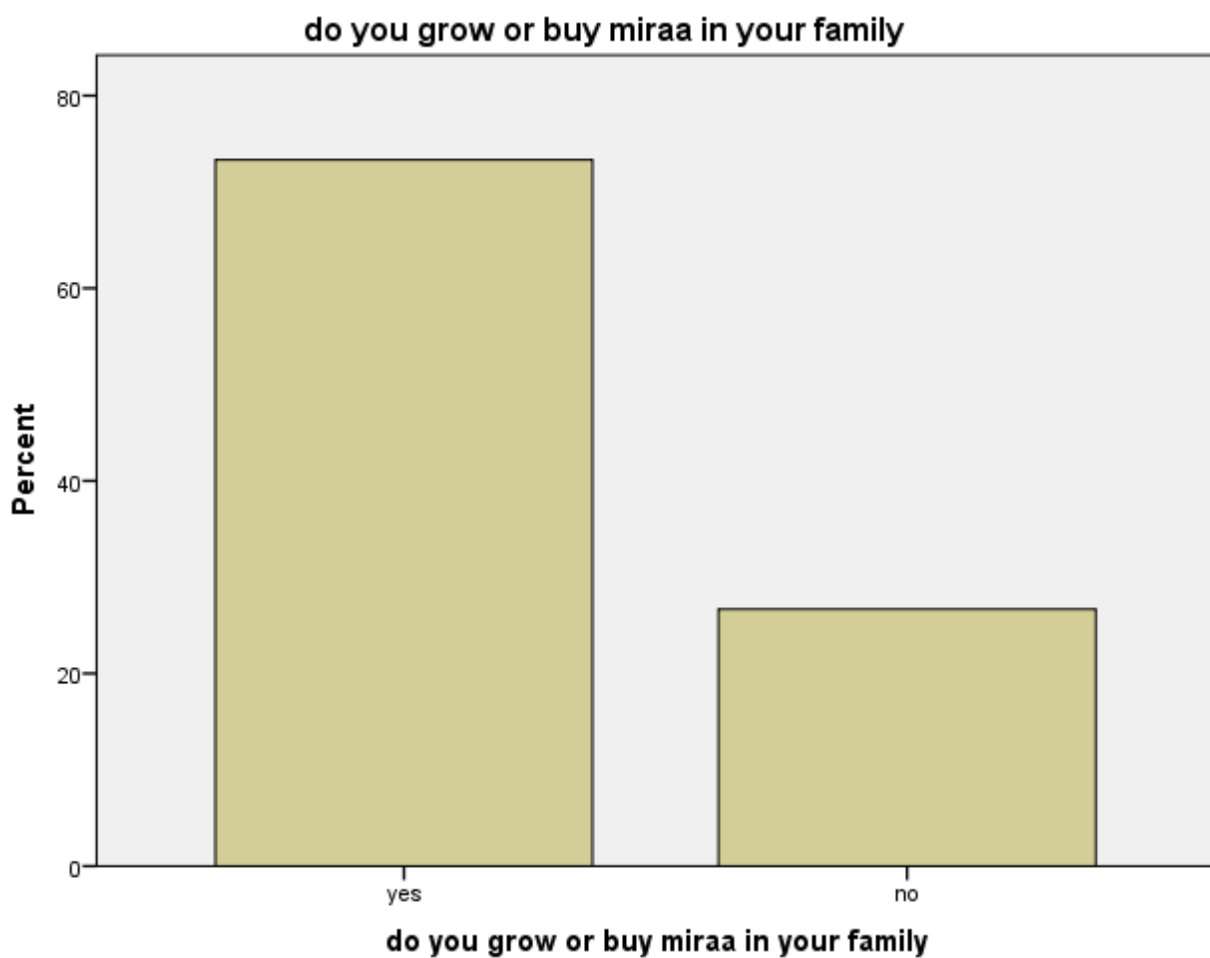
20% strongly agreed that during khat farming if they are not harvesting khat they are cooking for harvesters, 50% agree while 30% disagreed

During miraa harvesting if am not harvesting am cooking for harvesters

	Percent	Valid Percent
SA	20.0	20.0
A	50.0	50.0
D	30.0	30.0
Total	100.0	100.0

4.5 Khat selling and school attendance

The study objective assessed the effect of khat selling to regular school attendance. At the first place the study looked at the percentage of students actively involved in miraa business and benefits from it. From the figure below, it indicated that 70% of the respondents earn from miraa business while 30% does not. Respondents being students it shows that most of the students are involved in miraa related activities.



4.6 Khat wrapping and school attendance

The table below depicts miraa farming activities that the students are involved in. Assessing through the activities involved, the study showed that 42 respondents agreed that they assist in wrapping miraa in banana leaves which is a 70%. 10% disagreed while 20 % were undecided on the issue of assisting in wrapping miraa in banana leaves.

	Frequency	Percent
SA	12	20.0
A	30	50.0
UD	12	20.0
D	6	10.0
Tot al	60	100.0

4.6 Khat transportation and school attendance

The study went ahead to investigate the involvement of students into khat transportation in relation to school attendance. The study showed that 50% of the respondents stay back at home even on school days to transport miraa to the collection centre.30% of the respondents don't transport miraa on school days while 20% are undecided, as shown in the figure below.

	Frequency	Percent
--	-----------	---------

A	30	50.0
UD	12	20.0
D	12	20.0
SD	6	10.0
Total	60	100.0

My parents ask me to transport miraa to the collection center

even on school days

On the figure below investigating whether learners went back to school later after transporting the khat to the collection Centre. The study showed that 36.7 % would attend school after transporting khat while 63.3% would not attend the school

Frequency		Percent
yes	22	36.7
No	38	63.3
Total	60	100.0

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is a summary and a presentation of findings from the study. The chapter has been organized in a manner to provide a concise summary of the study, conclusion and recommendations.

5.2 Summary of the findings

The main objective of the study was to examine the effect of khat farming to regular school attendance. To achieve the objective, questionnaires were administered; hence, this section is a presentation of the findings from the respondents.

As observed from the previous chapter, a lot of students are involved in khat farming activities, where most of them earn from it. From the study it was realized that many students would prioritize miraa farming to their academic work or rather school attendance. Therefore, in this case if agricultural work may be beneficial in terms of providing income and improving nutrition but if children are taken out of school during planting or harvesting the work becomes harmful because it is hindering their education (Moyi, 2013). However, it was found that income from miraa also facilitate the education of these learners as it is still the source of their school fees.

In the aspect of khat farming and school attendance, it was found that most of the students do play several roles in the process of harvesting, wrapping and selling of khat. Since most of these activities take place during the morning hours, it leads to most of the learners missing classes. Recent studies have shown that Women engage in Miraa chewing sessions which is increasing rapidly causing serious problems for the family and the socioeconomic situation (Khalil, 1998). These parents lack time to prepare and encourage learners to attend school.

Khat consumption was also found to alter with the normal functioning of the user, for instance some respondents claimed to be extra active after consuming khat.

5.3 Conclusion

Based on the results of the study, khat farming was found to facilitate to poor school attendance since students are actively involved in khat farming activities such as cooking for the harvesters, harvesting, looking after siblings as the parent harvest, wrapping miraa, transporting and other several activities. All these activities led to most of the learners missing classes. Exposure to khat farming as a source of income has lowered their concentration in academic work, where most of them preferred being out there in farms or market rather than being in class.

Income from miraa altered with the concentration and academic performance of the learners since some preferred engaging in this business rather than attending school.

5.4 Recommendations

5.4.1 Recommendations for the policy

Teachers should be accountable to the attendance of their students that is, where one has to be absent, they should seek the permission from the school.

The school together with the government should organize a door to door visit within the community to enlighten parents on the need to educate their children, encourage their children to put more effort on their academic work and ensure their regular school attendance.

There should be a set time limit that will govern students working hours so as to avoid interrupting school attendance, example students to work on weekends only

5.4.2 Recommendations for further research

The study was based on secondary school students therefore the study should extend to the primary school pupils. Secondly the study targeted students and teachers only therefore, for future result it should include parents as they also play a role or contribute to the student's regularity in school attendance

REFERENCES

- Aden, 2006. *Social economic effects of Khat chewing in north eastern Kenya*. East Africa medical journal (83, 69-73)
- Armstrong, Edward 2008 'Research Note. *Crime, Chemicals and Culture: On the Complexity of Khat.*' Journal of Drug Issues 38(2): 631-648.
- Beckerleg, S.2008.Khat special edition introduction. *Substance use And misuse* 43:746-761.
- Gabriel Gatehouse Kenya farmers fear UK khat ban www.talktofrank.com. Retrieved on 9th august 2014.
- Mutuma M.M, *Causes of dropout among male students in Igembe District Kenya*. Unpublished thesis M.Ed. Thesis Chuka, University College.
- Mwaniki (2006) *Traditional functions of controversial miraa among the Igembe of Meru Kenya* (conference report)
- NACADA. (2006). *Alcohol Tobacco (Cigarettes) Bhang Miraa (Miraa Inhalants prescription Volume* (19) Nairobi. Kenya
- Sikuru L. Babu, S.M (2009) *Miraa (Catha Edulis): Academic, Health and Psychological effects on mature students, African journal of drug*
- Simons J. A, Irwin D. B and Drinnien E. A. (1987). *From Psychology –The Search For Understanding, Maslow's Hierarchy of needs*. West Publishing Company, New York.
- Soenens, B., and Vansteenkiste, M. (2005). *Antecedents and outcomes. Teachers' autonomy support*. Journal of Youth and Adolescence,
- Waikenda (2010), world peasant organization 34(6), 589-604. Miraa patron:www.prophet.nabii@yahoo.com
- Warfa, N., wein, A., bhui, ik, leavey, G., Craig, T., stansfeid, s (2007) *association between khat use and mental disorder, an emerging paradigm. Social science and medicine, volume 65(2)* 309-318

QUESTIONNAIRE

APPENDIX I: QUESTIONNAIRE FOR STUDENTS SECTION A:				
BACKGROUND INFORMATION				
1	Gender	Male Female	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Select one
2	Age bracket	13_14 15_16 17_18 19 and above	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Select one
3	Which classes are you?	Form one Form two Form three Form four	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Select one the current one
4	Do grow or buy khat in your family?	Yes No		Select one

Please mark the number that best reflects your level of agreement in the following statements.

KEY: SA- Strongly Agree, A: Agree, UD-Uncecided, D: Disagree, SD: Strongly Disagree

SECTION B: HARVESTING MIRAA AND ATTENDING SCHOOL				
1	I always help my family in khat harvesting on school days.	SA	[]	Select the most appropriate
		A	[]	
		UD	[]	
		D	[]	
		SD	[]	
2	I assist in sorting khat on school days	SA	[]	Select the most appropriate
		A	[]	
		UD	[]	
		D	[]	
		SD	[]	
3	During Miraa harvesting, if am not harvesting am cooking for the harvesters	SA	[]	Select the most appropriate
		A	[]	
		UD	[]	
		D	[]	
		SD	[]	

SECTION C: MIRAA SELLING AND SCHOOL ATTENDANCE				
1	I assist in wrapping Miraa up in banana leaves	SA	[]	Select the most
		A	[]	

		UD	[]	appropriate
		D	[]	
		SD	[]	
3	Am involved in selling Miraa	SA	[]	Select the
		A	[]	most
		UD	[]	appropriate
		D	[]	
		SD	[]	

SECTION E: KHAT TRANSPORTATION AND SCHOOL ATTENDANCE

1	My parents always ask me to transport Miraa to the collection center even on school days	Yes	[]	Select the
		no	[]	most
				appropriate
4	I transport khat to collection center and attend to school later		[]	Select the
			[]	most
			[]	appropriate
			[]	

Thank you for taking your time to participate in this study. God bless you.

APPENDIX II: INTERVIEW SCHEDULE FOR TEACHERS

Please feel free and respond appropriately. To begin with:

Section A: Biographical information

1. What is your level of education?

- 1. Diploma
- 2. Degree
- 3. Masters

2. What is your Working experience?

- a). Less than 3yrs.
- b) 3-5yrs
- c) 5-10yrs
- d) Over 10yrs

SECTION B

1) Comment on students' concentration and involvement in learning activities

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2) Kindly, provide your views on frequency of your students in attending classes.

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3) Incase students miss class what are their reasons.....