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Effect of *Mûgûka* Chewing by the Youth on Criminal Activities in Kibwezi West Sub-county

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Abstract One of the drugs that is widely abused by the youth in Kenya is mûgûka. National Council Against Drug Abuse reports that approximately 100,000 people in Makueni County consume muguka 92% of whom are youth. Despite this high percentage, few studies on the impact of chewing muguka by the youth have been conducted and adequately documented. This paper reports on the socioeconomic effect of muguka chewing particularly the anti-social behaviours concomitant of the abuse of this substance among the youth in Makueni County. The study on which this paper draws employed a descriptive research design and targeted informants inthree market centres of Kibwezi, Makindu, and Emali sub counties. 378 youth were selected using simple random sampling. Data were collected using questionnaires, observations and key informant interviews. Simple descriptive statistics were derived from quantitative data while qualitative data are presented as verbatim quotes. The findings indicated that criminal activities were positively correlated with muguka chewing (r=0.794, α <0.000). It is concluded that the youth who abuse muguka are more likely to engage in antisocial activities and behaviours in the study community.

Keywords: youth, chewing mûgûka, criminal activities, anti-social behaviours

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1. Introduction

Rise in criminal activities, anti-social behaviours and insecurities in most areas have been associated with increased abuse of substances, and is now a global concern [1] Attacks on businesses and individuals associated with drug abuse have a negative impact on the viability of enterprises, economic stability, which, in turn, affects, societal prosperity. Crime is a serious obstacle to progress, in addition to the human misery it causes. The danger of crime and violence deters investors, foreign development agencies, and local business community alike from starting or maintaining economic activity [1].

Studies show that crime rates and anti-social behaviours are significantly higher after initiation of substance use [2,3]. A study by United Nations Office on Drugs and Crimefocusing on youth crime and substance addiction in Nairobi found the users had stolen money to buy drugs [4]. A significant number of the study participants said that young people in Nairobi use sex to get drugs, alcohol, food, or clothing. Crime rates appear to peak in general population samples during late adolescence, which coincides with the period of initiation to substance use [5]. The pre-initiation/post-initiation study model, however, does not distinguish the effects of initiation from the

effects of other factors that may also be associated with criminal activities particularly age, which is strongly correlated with crime levels. The aim of this paper is to report on the effect of $m\hat{u}g\hat{u}ka$ chewing by the youth on criminal activities in Kibwezi West Sub-county.

The wellbeing of the youth is a growing area of concern, especially when associated with drug and substance abuse. This is a worldwide concern as captured by various bodies such as the World Health Organization, governments, and Non-Governmental Organizations (NGOs). The available literature on $m\hat{u}g\hat{u}ka$ reveals many contradictions brought forth by both western and African studies about its effects, with some citing positive impact such as economic and social cohesion while others cite negative effects on health, social and psychological aspects of human life. Thus, there still exists many knowledge gaps regarding the impact of $m\hat{u}g\hat{u}ka$ particularly in the study area.

Mûgûka causes harm to the economy through loss in production as a result of laziness and absenteeism. Wangu et al [1] noted that some families in North Eastern Kenya use more than a third of their disposable income on purchasing muguka, meaning that the family has to forego some critical things like good diet and education. The effect of chewing this substance on the health of its users has not been conclusive, with some studies showing no adverse health effects while others report completely different findings. According to Aden et al [6], mûgûka,

like many abused substances, places a heavy toll on family relationships. If a child perceives the primary caregiver to be distant, the child will develop a sense of insecurity, which might morph into fear thus driving them to substance use or even suicide.

There are two theories associated with the study on which this paper draws namely the social learning theory and the reference group theory. According to Parkay [7], the key principle of social learning theory is that learning is not simply behavioral, rather it is an intellectual process that happens in a social setting. Learning can happen by observing behavior and observing the outcomes of the behavior (vicarious reinforcement). Furthermore, learning includes observation, obtaining information from the observations, and settling on choices about the execution of the behavior (observational/modeling). Subsequently, reinforcement is part of learning but it is not exclusively accountable for learning.

Through observational learning, both young and old people become acquainted with the general concepts of situations as well as specific behavior. According to Manthey [8], parents influence their families' behavior and social relationships. This fact explains why consumption of miraa is entrenched in families. The tenets for behavior in every social setting are developed from what has been seen in watching others and the outcomes of their behavior in the past and what one comprehends about the demands in the present circumstance [7].

This theory is relevant in understanding why people indulge in $m\hat{u}g\hat{u}ka$ consumption and other $m\hat{u}g\hat{u}ka$ consumption related behaviors. Most people learn from their social environment and according to the interpretation of what they consider worthwhile. This is where families and other social environments play a major role in practicing the learned behavior. Social learning theory also emphasizes people learning through observation. This explains the use of other substances such as alcohol and bhang during muguka chewing sessions. As children grow up, there is a tendency to develop a positive attitude towards the consumption of $m\hat{u}g\hat{u}ka$ especially if they have a role model who is a family and consumes $m\hat{u}g\hat{u}ka$.

Given the fact that $m\hat{u}g\hat{u}ka$ growing is the economic mainstay in some parts of Kenya especially Mbeere sub-county, the people in this environment associate wealth and prestige to $m\hat{u}g\hat{u}ka$ growing, thus reinforcing its consumption [9]. Consumption of $m\hat{u}g\hat{u}ka$ is a legal and socially acceptable behavior in Kenya. This fact explains why family members chew $m\hat{u}g\hat{u}ka$ irrespective of age and gender, while traditionally $m\hat{u}g\hat{u}ka$ chewing was a preserve of the elderly after a productive work.

The reference group theory is credited to Lyndon and Schupp [10]. According to them, men shape their attitudes to reference groups other than their own. The reference groups are the groups within which individuals are members or aspire to maintain membership. Such groups provide a form of reference and attitude formation for members. The basic assumptions of reference group theory are that a person's demeanor and attitudes are molded by the group with which they are a part of our identity, and that self-examination and the correlative sentiments and behavior are a result of the person's position in a specific group within a social hierarchy. This point is collaborated by the psychology of groups, which

states that in a group environment, individuals will conform to the norms of the group to have a sense of belonging [5].

The choice of a reference group according to these authors is based on simple assumptions about motivation and maintenance of social patterns that are of value to the group members. In their view, group members have their own set rules and they understand their limits. Reference group theory is considered relevant to the study that provided material for this paper in that people could get involved in the habit of consuming $m\hat{u}g\hat{u}ka$ to fit in their peer groups or for identity purposes. Furthermore, those who chew $m\hat{u}g\hat{u}ka$ acquire a sense of belonging and identity as they consume the herb.

Mûgûka consumers and growers consider it a precious commodity due to its socio-economic benefits. This encourages others to emulate reference groups for identity and solidarity purposes. Miraa consumption activities are done in groups and mostly in the company of family members, business associates, relatives, and friends [5]. Following this line of argument, we can deduce that mûgûka consumption is a practice, which is learned from individuals or reference groups. A few individuals from a group may withdraw from the modular example of behavior just because of their synchronous membership in different groups.

Previous studies have shown that there is a relationship between drug abuse and crime levels in various parts of the world. For instance, Lewis [11] did a study on the relationship between crime and drugs with particular focus on what had been learned in recent decades. According to Lewis [11] the scientific literature indicates that drug abuse has a multiplier effect on crime. The link between crime and the availability of malt liquors is a great and straightforward illustration. City by city, where it has been monitored, locations with a larger availability of malt liquors have consistently had a higher percentage of all offenses, in particular alcohol-related violence. This is also true in the case of $m\hat{u}g\hat{u}ka$ chewing, which has an influence on customers.

Studies have recommended the need for longitudinal research to investigate the normal history of substance use and the non-drug users [7]. Although cross-sectional research may provide information on the nature and intensity of the drug-crime association for various subgroups and crimes, the causationl debate requires longitudinal data to assess the timing of events and to obtain knowledge of how the distinctions between users and non-users develop over the lifespan of an individual.

Analysis has concentrated on contrasting offending that occurs before substance usage is initiated with offending that occurs afterward. A good example is a research by Payne and Gaffney [2], which analysed the criminal history and clinical data of male methadone patients. Most studies that make this comparison find that offending rates are significantly higher after initiation of substance use [3]. This pre-initiation/post-initiation design does not distinguish the effects of initiation from the effects of other factors that may also be associated with offending, particularly age, which is strongly correlated with offending. Offending rates appear to peak in general population samples during late adolescence, which coincides with the period of initiation of substance use.

Since 1971, the United States has spent colossal amounts of money on the drug war. In 2015, for example, the Federal Government spent an estimated \$9.2 million a day, or more than \$3.3 billion annually, to imprison those charged with drug-related offenses. State governments spent an additional \$7 billion in 2015 incarcerating individuals for drug-related offenses [3]. In a study by UN-Office on Drugs and Crime [4] focusing on youth crime and substance addiction in Nairobi, participants who admitted using drugs said they had stolen money to buy drugs. Some stated that young people in Nairobi used sex to get drugs, alcohol, food, or clothing (36%). Thus, drug abuse including muguka seems to contribute to crime related activities and behaviours that are not socially acceptable.

According to the Columbia Center for Drug Studies, the number of convicts in need of drug treatment increased dramatically in the 1990s [8]. In 1996, 900,000 (69%) prisoners out of a total jail population of 1.3m required drug treatment. Despite this, only around 100,000 convicts (7.6%) were receiving any form of drug treatment, and most of it was not intense. In recent years, the number of women who test positive for drugs at the time of their arrest increased dramatically, rising to between 60% and 70% [8]. This clearly shows how drug abuse has a bigger impact on crime rates, and $m\hat{u}g\hat{u}ka$ chewing is no exception. With the exception of South Korea and Japan, crime rates have been rising in all wealthy countries. Both of those industrial nations' crime rates have been rising, although not at the same rate as the other countries.

Kisaka [9] conducted research on drug abuse in Kenya's coastline area. Weldon observed that in 2013, violence flared again in Kenya's coastal area, this time in Kenyan schools, following a wave of drug abuse along the coast in previous years. In 2013, students set fire to many schools, dorms, and administration buildings, and their indiscipline remained a cause of worry in many regions of the country. The unrest resulted in the destruction of school property worth millions of Kenyan shillings, loss of study time, and even death. One student in Nairobi was burned to death while sacrificing his life in an inferno to save another. These are the crimes that were committed due to drug abuse [12].

In Kenya, a study conducted in four counties namely Kwale, Isiolo, Marsabit, and Kitui shows that the current consumption of mûgûka stands at 54% among the youth [12]. Yet, youth empowerment is a key pillar in the attainment of Vision 2030 and so prevention of drug use by this segment of the society is critical. According to Kiunga et al [13], more than 10 million people in the world chew *mûgûka*. Its psycho-stimulant effect makes the users want more, hence increasing the rate of use as well as the number of users daily. The rate of mûgûka use is rapidly increasing among students, who claim that chewing it increases performance in examinations, a claim not backed by any scientific evidence. For example, the low enrolment among schools in Garrisa County has been blamed on *mûgûka* business [14]. Additionally, Kisaka [9] noted that increased consumption of mûgûka has serious socio-economic and health consequences, such as increased crime levels, reduced production of the economy, loss of working hours, and malnutrition.

According to Kisaka [9] *mûgûka* has become a major drug among the youth in East Africa. It has also become a source of employment, money, and revenue in the Horn of

Africa's producing countries. It is currently an appealing alternative for growers because of its drought tolerance and minimal labor needs. Despite the health and socio-economic effects of $m\hat{u}g\hat{u}ka$ drug and criminal activities associated with it, its farming, sale, and consumption have not been regulated in Kenya. This paper reports the socio-economic effect of $m\hat{u}g\hat{u}ka$ chewing on criminal activities and anti-social behaviours among the youth in Kibwezi West Sub-county.

2. Materials and Methods

The study on which this paper draws focused on the socioeconomic effects of mûgûka chewing among the youth. The study was conducted in Kibwezi West Subcounty, one of the six sub-counties making up Makueni County. The sub-county is comprised of six wards namely Makindu, Nguumo, Kikumbulyu North and South, Emali/Mulala, and Nguu/Masumba. Kibwezi West has a population of approximately 197,000, according to the latest census results, and covers 1184.2 square kilometers. This is a semi-arid area and the main economic engagement for the people is small-scale farming. Kibwezi town, one of the market centres for the study is the headquarters of Kikumbulyu South Ward. Makindu town, located on the Nairobi-Mombasa highway, is the headquarters of Makindu Ward. This town lies about 175 kilometers southeast of the capital city Nairobi and about 356 kilometers northwest of Mombasa. The third market centre, Emali is the biggest and most populous of the three. Like the rest, it is located further north along the Mombasa-Nairobi highway A small part of Emali town is in Kajiado County [1].

The study combined both qualitative and quantitative methods of data collection. Simple random sampling method was used in selecting the informants. Quantitative data were collected from the general population using questionnaires. Focused group interviews together with key informants interviews were employed in collecting qualitative data. The study targeted people in the streets of the three major market centres of the sub-county namely Kibwezi, Makindu, and Email as well those chewing muguka in the chewing joints on the particular day of data collection.

Using the formula below from Mugenda and Mugenda [15] the study sample was calculated using the target population of 23,823 with a 95 percent confidence level and an error of 0.05. From normal distribution, the population proportion was estimated to be

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

Where: Z is the Z – value = 1.96 P Population proportion 0.50 Q = 1-P

 α = level of significance = 5%

$$n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} = 384$$

Adjusted sample size n.'= 384/ [1+ (384/23823)] Approx = 378 The sample was then proportionally allocated to each of the three urban centres depending on the population size.

Town	Frequency	Ratio	Sample size
Kibwezi	6132	0.01586702	97
Makindu	8345	0.01586702	133
Emali	9346	0.01586702	148
Total	23823		378

The study thus used simple random sampling to select the 378 respondents. This approach is the simplest of all the probability sampling methods since it just takes a single random selection and minimal advance demographic knowledge is required. Employing this sampling procedure gave each member of the population an exact equal and non zero chance of being included in the study. The key informants comprised the people chewing muguka in the chewing points popularly known as "ívia".

Data were analyzed using Statistical Package for the Social Sciences (SPSS) Version 23.0 and descriptive statistics were derived. Qualitative data were analysed thematically and presented as verbatim quotations or narratives.

3. Results

Study findings indicated that 247(89.5%) of the respondents were male while 29(10.5%) were female. About respondents' age bracket, 67% were 18-35 years old, 19% were 36-45 years old, 11% were 46-60 years old, while 3% were above 60 years of age. Even though majority of the informants were young, respondents across all the age groups said they knew someone who chews mûgûka. Of those who knew someone who chews mûgûka, most of them were their friends (55%), while a significant number were colleagues (27%), others neighbors (11%) and a few (7%) were family members. Only 13.8% of the respondents said that they chew mûgûka. This suggests that about one in every 15 people in Kibwezi West Sub-County chew Mûgûka. Those chewing mûgûka on a daily basis were about 63%, during weekends only were 20%, while 17% represented those who rarely chew mûgûka. In terms of the duration of chewing mûgûka, 43% indicated that they had been chewing mûgûka for a period of 2-5 years, while 25% have been chewing

mûgûka for 6-10 years. More than half (54%) of the respondents learned chewing mûgûka from friends, 15.5% learned from parents, while 31.5% learned from other family members. Reasons for chewing mûgûka were varied: Majority (73.2%) chew mûgûka to feel active, some (18.1%) because friends chew, and a small number (8.7%) to relieve stress.

Table 1 and Table 2 below show the study findings regarding the socio-economic effects of chewing $m\hat{u}g\hat{u}ka$ by the youth on criminal activities in Kibwezi West Sub-county.

Findings presented in Table 1 show that the youth who abuse $m\hat{u}g\hat{u}ka$ are more likely to engage in criminal activities (Mean=4.014, STD=0.910), be incarcerated (Mean=3.797, STD=1.410), and engage in violence (Mean=3.871, STD=1.103). Further, the study found that people had seen a rise in violent activities in Kibwezi West Sub-county as a result of increased usage of $m\hat{u}g\hat{u}ka$ by the youth (Mean=3.862, STD=1.300) and a rise in incarcerated youth in their area as a result of increased usage of $m\hat{u}g\hat{u}ka$ (Mean=3.580, STD=1.183).

Generally, criminal activities were found to have a strong positive correlation with the chewing of $m\hat{u}g\hat{u}ka$ among the youth (r=0.794, α <0.000) as shown in Table 2 above. Therefore, $m\hat{u}g\hat{u}ka$ was a major contributor of criminal activities among its consumers, majorly the youth.

Besides, the in-depth interviews with key informants and youth leaders revealed that $m\hat{u}g\hat{u}ka$ chewing had contributed to criminal activities among youth in Kibwezi sub-county. For instance, KI 1 had the following to say: "The majority of youth who chew $m\hat{u}g\hat{u}ka$ are the ones involved in criminal activities around this area." They will be involved in domestic violence and will be more likely to steal items from their homes or neighbours to sell in order to buy $m\hat{u}g\hat{u}ka$. In this case, more youth are likely to be incarcerated because of these criminal activities.

KI 2 observed the following: "The idleness of those who chew *mûgûka* especially youth has increased, which has highly contributed to criminal activities." These idleness means the youth are unable to go to work and thus the regions productivity decreases. They will mostly be dependent on their spouses and parents for their basics.

KI 3 added: "The rise of crime in Makueni County is a result of youth engaging in *mûgûka* chewing and other drug abuse."

Table 1. Socio-economic effects of chewing $m\hat{u}g\hat{u}ka$ by the youth on criminal activities

Statements		Mean	Std. Deviation
Youth who abuse mûgûka are more likely to engage in criminal activities		4.014	.910
Youth who abuse mûgûka are more likely to be incarcerated		3.797	1.410
Youth who abuse mûgûka are more likely to engage in violence		3.871	1.103
We have seen a rise in criminal activities in our area as a result of the increased use of mûgûka by the youth		3.261	1.146
We have seen a rise in violent activities in our area as a result of increased use of mûgûka by the youth		3.862	1.300
We have seen a rise in incarcerated youth in our area as a result of the increased use of $m\hat{u}g\hat{u}ka$		3.580	1.183

Table 2. Correlation between mûgûka chewing and criminal activities

		Mûgûka Chewing	Crime Levels
	Pearson Correlation	1	.794**
Mûgûka chewing	Sig. (2-tailed)		.000
	N	276	276
Criminal activities	Pearson Correlation	276 .794**	1
	Sig. (2-tailed)	.000	
	N	276	276

^{**.} Correlation is significant at the 0.01 level (2-tailed).

The foregoing suggests that chewing of $m\hat{u}g\hat{u}ka$ by the youth has a bearing on crime related activities in Kibwezi Sub-county.

4. Discussion

 $M\hat{u}g\hat{u}ka$ is a substance that is readily available and a significant number of the youth chew it. This in turn makes the youth more likely to engage in criminal activities such as violence, stealing. As a consequence, they are more likely to be incarcerated. The findings are in consonance with other studies that show that drug abuse has an influence on criminal activities. Pierce [3], for example, affirmed that offending levels are fundamentally higher post drug use initiation. The youth remain the main subgroup of the population that chews $m\hat{u}g\hat{u}ka$ and late adolescence age remains the peak for engaging in offenses and time for drug-use initiation.

Other studies have shown that drug abuse is a major cause of indiscipline particularly among students, which contributes to unrest in schools leading to destruction and loss of school property, loss of study time and in some cases death [11]. This paper supports a study by the United Nations Office on Drugs and Crime [4] focusing on youth crime and substance addiction in Nairobi, which found that some drug users stole money to buy drugs, some used sex to get drugs, alcohol, food, or clothing. Thus, drug abuse including $m\hat{u}g\hat{u}ka$ contributes to criminal activities and behaviours that are not socially acceptable.

Mûgûka chewing is associated with abuse of other substances including alcohol and marijuana. Marijuana is a banned substance in Kenya and its possession, use or sale is a felony. This suggests that many youths are likely to be incarcerated for using it. The youth who chew mûgûka, especially those addicted to the substance will spend most of their time idling in the chewing 'bases', which means they have no time to work to fend for their families or take care of their own basics. This creates tension between them and their families sometimes resulting in domestic violence. Because they are not able to afford the *mûgûka* they require every day, these youth may engage in criminal activities such as muggings and stealing in order to get money to buy the drug. Some of the youth may sell family property to afford their daily doses of mûgûka thus creating family conflicts. The foregoing is likely to contribute to increased insecurity in the community.

5. Conclusion

Many young people engage in substance abuse including $m\hat{u}g\hat{u}ka$. The majority of the youth who chew $m\hat{u}g\hat{u}ka$ do it daily and spend much of their time not engaged in productive activities suggesting that much is

lost in terms of production, income and services. In addition, many of those who chew $m\hat{u}g\hat{u}ka$ abuse other drugs including alcohol and marijuana thus compounding the problem. Concomitant of the foregoing are criminal activities because this idle youth and who chew $m\hat{u}g\hat{u}ka$ have to find a way of getting the money to buy the drug. Thus antisocial behaviours and activities including stealing, mugging and sexual violence are likely to occur. The young people may fail to perform their roles and responsibilities, which may result in family tensions, neglect and domestic violence. It is thus concluded that the abuse of $m\hat{u}g\hat{u}ka$ by the youth has negative social and economic impact to the family, community and the wider society.

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