SOCIO-ECONOMIC EFFECTS OF KHAT CHEWING IN NORTH EASTERN KENYA

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ABSTRACT

Background: The khat habit is a widespread phenomenon which has in the past two decades spread to parts of Western Europe and North America from Eastern Africa and the Arabian Peninsula. Although khat has been identified as one of the most commonly abused substances in Kenya, restrictions on cultivation, trade and usage have been non-existent since its legalisation in 1977.

Objective: To describe the socio-economic effects of khat chewing in Ijara District in the North Eastern Province of Kenya.

Design: Cross sectional study.

Setting: Ijara District, North Eastern Kenya.

Subjects: Fifty respondents were interviewed.

Results: Eighty eight percent of the respondents were khat chewers, and the majority (80%) had family members who engaged in the khat habit. There was a general lack of education on the negative effects of khat chewing. Due to reported mood changes and withdrawal symptoms when not chewing khat, many respondents used more than half of their domestic budgets on khat, but few (28%) perceived this as a waste of resources. Fifty four percent of khat chewers typically started the habit during the day, implying a waste of time for productive work. However, only 40% of the persons interviewed admitted that the drug affected work performance negatively. The khat habit was associated with strain on family relationships, anti-social behaviour and health effects such as insomnia.

Conclusion: In spite of the negative socio-economic impact of khat in Ijara District, khat consumption remains a widespread habit.

INTRODUCTION

The consumption of khat leaves (Cathe edulis Forsk) is a practice that is common in East Africa and parts of the Middle East, where it is deeply integrated into the social and cultural norms of these regions (1,2). Khat users typically experience increased energy levels, alertness and mild to moderate euphoria on chewing fresh leaves of the plant. The habit-forming properties of khat are due to the amphetamine-like neurostimulatory effects of its main constituent phenylalkylamines, namely cathinone, cathine (norpseudoephedrine) and norephedrine (3-5).

The psychoactive effects of khat are mainly attributed to cathinone, a potent alkaloid which has a close structural resemblance to amphetamine. The short-lived efficacy of khat leaves is caused by the rapid degradation of (-)-S-cathinone into (+)-
norpseudoephedrine and norephedrine within a few days of harvest (1,6). Khat consumption has historically been limited in the past to the areas in which it is grown because of the volatile nature of its bioactive alkaloids. However, the emergence of distribution networks in the west, coupled with the development of efficient air transport networks globally has facilitated the spread of the khat habit to cities in Western Europe and North America (7-9).

Khat, which is also widely known as miraa in this region, is one of the most lucrative cash crops in East Africa and the horn of Africa. Although the psychoactive alkaloids in khat are restricted under international drug conventions, possession and use of the khat plant itself is not controlled in many countries. In Kenya, the shrub has been cultivated, traded, exported and consumed without any prohibitive measures since its legalisation in 1977. The khat plant is grown in the Meru and Mbeere districts in the Eastern provinces of Kenya for both local use and export purposes. A number of distribution cartels control and organise the daily transportation of the harvested khat plant to both local and international markets. Most of the 150 tonnes of khat exported from Kenya every week goes to Somalia, Britain, the Netherlands and Yemen (8-10).

Medical problems associated with khat intoxication include psychiatric manifestations such as deterioration of psychophysical function and schizophreniform psychoses (11,12). Khat chewing is also associated with a wide range of health problems including ischaemic heart disease, gastritis, liver toxicity, oral cancer, hypertension, spermatorrhoea and haemorrhoids (1). Concurrent habits such as tobacco smoking may further precipitate the risks associated with khat abuse (13).

Drug abuse has emerged as one of the main causes of antisocial behaviour, particularly among the youth (2). Despite the growing public concern about increasing consumption of miraa and other drugs in Kenya, few systematic studies have been conducted on the socio-economic effects of miraa chewing, particularly at the grass roots level. Some of the reasons cited for initiation into drug abuse include: peer pressure, inappropriate use of finances, unstable family backgrounds and ignorance (14,15). This study attempts to describe the magnitude of problems caused by miraa consumption on the social and economic activities in Ijara District, with an aim of promoting awareness on the adverse effects of drug use among the youth in this community.

MATERIALS AND METHODS

The study was conducted in Ijara District which is one of the four districts forming the North Eastern province of Kenya. The 5400 km² district borders the republic of Somalia to the East, Lamu district to the South, Tana River district to the West and Wajir district to the North. Its estimated 62,000 inhabitants are mainly people from the Somali ethnic group who profess the Islamic faith. The area is semi-arid, with settlement patterns dictated by the topographical influences of the harsh environment. Economic activities are limited to subsistence farming and nomadic livestock keeping.

The study was conducted in rural homesteads in Ijara District in January 2005, and mainly targeted residents between 15-34 years of age (Figure 1). The District Commissioner and the area Chiefs in the district assisted with the identification of the regions where the nomadic populations are known to frequently inhabit at the time of the study. Using these regions as our sampling frame, one of the homesteads was randomly selected as a starting point and every 5th homestead thereafter was assigned for interviews. Participation in the study was voluntary and anonymous.

Figure 1

Demographic characteristics of the study population

A total of 50 respondents were interviewed and involved in focus group discussions based on a questionnaire with both open-ended and close-ended
questions for qualitative and quantitative information on socio-demographic data, history of khat usage, expenditure and perception of the khat habit. The language used in the questionnaire was English. Most of the respondents in this study were not functionally literate in this language, and needed explanation of many of the terms used, and this necessitated translation of the questions into Somali during the interview process. Data analysis was done using SPSS version 12.0 and Sigma Plot version 8.0.

RESULTS
Demographic characteristics and chewing habits of respondents: Miraa consumption appeared to be widespread in this population with 88% of the persons interviewed reporting a history of khat consumption. Most of the miraa chewers were within the 25–29 year age bracket. More men habitually chewed khat than women, with 75% of the male respondents and less than 10% of the female respondents admitting to current khat use (Figure 2). The majority of those interviewed (76%) were Muslims, 16% were Christians, 2% were Hindus and 2% were affiliated to other religions.

Figure 2
Patterns of khat consumption in Ijara district

![Pattern of khat consumption](image)

Social and economic effects of khat chewing: The amounts of money spent on khat varied widely with more than half of the respondents spending KShs 300.00 – 800.00 (US$ 4.2 - US$ 11.3) on their daily habit. This represented over 50% of the household budget in most cases, indicating a compromise of domestic needs. Consumption of this mind altering drug routinely started during the day in 54% of users, implying wastage of time for productive work. Most khat chewers did not believe that the habit had a negative economic impact on them, with only 28% admitting that miraa chewing was a waste
of resources. However, 40% of the interviewees blamed miraa for low productivity and inefficiency at work, while 32% associated it with absenteeism (Figure 4).

The khat habit was held responsible for antisocial behaviour by a fraction of the respondents (28%). Khat chewing is a social occasion among addicts, and is typically done as a group activity until late at night. Seventy eight percent of the respondents reported sleeping after 10.00 pm as a matter of routine because of khat chewing. The reasons given for this included the actual time taken for khat consumption and complications of khat-related insomnia. Paradoxically, 58% of the respondents said that khat caused strains on family relationships, but only 14% would admit that khat chewing kept them away from their own families.

DISCUSSION

The deeply rooted tradition of khat use as a socially acceptable mood altering drug in many local cultures has contributed to its perception as a safe drug. According to our data, the khat habit was thought to increase levels of alertness, happiness and activity among users. Mood alteration and withdrawal symptoms appeared to be accepted side effects of the drug. Familial influence played a major role in initiation into the khat habit, with most chewers having one or more family members who also chewed khat. Although the population in Ijara district was predominantly Muslim, khat chewing was also practiced among Christians, Hindus and people affiliated to other religions. These findings were consistent with other studies which report khat use in cultures that do not forbid the use of alcohol (16).

The poor economic status of the area was reflected by the fact that many respondents expected food to be given as an incentive for participation in the study. Apparent differences in khat consumption between men and women may be explained by cultural restrictions on khat chewing (2) and economic dependency among the women in Ijara district. In most of the homesteads surveyed, the family income was earned by men who therefore controlled the domestic budgets, although unemployment was widespread. The majority of khat chewers spent more than half of their domestic budget on their daily habit, at the expense of vital needs such as education and medical care. Social gatherings for purposes of khat chewing typically started in the afternoons, but few khat users blamed miraa for low productivity, inefficiency and absenteeism at work.

Miraa chewing was a common nocturnal activity in this group, and was used by workers on night duty as well as students to keep them alert late at night. The mood altering effects of the drug (17) may however be contributing to the high drop-out rates of youths in Ijara district from school. Most of the
respondents admitted awareness of the negative socio-economic effects of khat in the community but few would admit individual responsibility for these problems. For instance, some respondents said that it contributed to destruction of families in the community, but few khat users would admit that their habit kept them apart from their families (Figure 4). Some khat chewers expressed concern that the habit could affect their health and general well being but the inadequacy of public health campaigns against khat was evident, with 68% of the respondents reporting no exposure to education on the adverse effects of miraa chewing.

Due to the logistics of access to the nomadic population of Ijara district and a famine that was prevalent in the district at the time of data collection, sample sizes for this study were limited. The high prevalences and negative socio-economic effects of the miraa habit within the surveyed group were, however, alarming. Our unpublished data demonstrates similar patterns of khat consumption in Eastleigh, a slum area in Nairobi, the capital city of Kenya. These findings are consistent with previous studies in Yemen and Somalia indicating that over one-third of family income is spent on the khat habit and about 80% of the adult populations in these countries are khat consumers (18,19). These alarming trends reveal a clear need for further and more extensive studies on the khat habit in Ijara as well as other rural and urban districts for purposes of providing an accurate assessment of the impact of khat on local communities.

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REFERENCES

BIRTH PLANS AND HEALTH FACILITY BASED DELIVERY IN RURAL UGANDA

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BIRTH PLANS AND HEALTH FACILITY BASED DELIVERY IN RURAL UGANDA


ABSTRACT

Objectives: To evaluate whether the completion of birth plans is associated with delivery in a health facility and the perceptual causes of birth plan completion and health facility based delivery were explored according to a well-tested health behaviour theory.

Design: A community survey.

Setting: Rakai and Luwero districts.

Subjects: A total of 415 (202 in Rakai and 213 in Luwero district) respondents were randomly selected and interviewed using a mixed survey questionnaire composed of open and close-ended questions.

Main outcome measures: Health facility based delivery.

Results: The results demonstrate a statistically significant relationship between the completion of birth plans and delivery in a health facility (OR = 1.86, 95% CI = 1.1, 3.1). The fear of consequences of delivering at home was found to be an important driving force in promoting the completion of birth plans, thereby indirectly influencing the likelihood of delivery in a health facility.

Conclusion: Given the empirical evidence presented here, this study suggests that birth plans are an important tool in improving the rate of health facility based deliveries and thus essential in the fight against maternal mortality in Uganda. It is further recommended that campaigns market the use of birth plans as a way to reduce uncertainty and manage fear and the unknown about pregnancy.

INTRODUCTION

One of the most discouraging health indicators in Uganda is that of maternal mortality (1). The maternal mortality ratio for Uganda in the year 2000 was estimated at 880 maternal deaths per 100,000 live births (2). This value is among the highest in the sub-Saharan region. In comparison, the maternal mortality ratio averages 24 in the United States and 11 in the United Kingdom per 100,000 (3). It has been estimated that 61,000 Ugandan women will die of childbirth-related causes between the years 2000 and 2010 if no further action is taken (1). Furthermore, for every woman who dies as a result of maternal complications, between 20 and 30 more will suffer short and long-term disabilities. This means that between the years 2000 and 2010, 100,000 women will become infertile and about 1,200,000 will suffer from disabilities such as inability to breastfeed, incontinence due to fistulae and chronic pelvic pain because of complications associated with child birth (1).

In light of the grave maternal and newborn situation in the country, the government has