

## Adolescents' Perceptions of Khat Chewing Habit in Jazan Region, Saudi Arabia: A Qualitative Study

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**Abstract:** Khat is used by significant proportion of Jazan population, among them are school students. The aim of this study was to gain a better understanding of perceptions of school students in intermediate and high secondary level about Khat chewing habit. In-depth understanding of student perceptions will help in formulation of effective strategies to reduce the prevalence of the habit and its adverse social and health consequences. This study analyses focus group discussions with 60 intermediate and secondary school students, in an attempt to gain a better understanding of the perceptions of school students on the prevalent habit in the region. The findings are presented with the aid of six "domains": magnitude of khat chewing, impact of social norms, health problems associated with khat, socioeconomic consequences of khat use and the religion. Students suggested khat prevalence rate ranges between 70- 80%. The majority of participants agree that khat chewing, especially among adult males, is a well-accepted/common behavior. Students reported great burden of Khat chewing on family's budget, except for Faifa mountain groups, who use their own cultivated khat. Regarding khat use and academic performance there was a on how it can affect schooling /academic performance. Most participants consider khat chewing as haram, i.e. prohibited in Islam. Based on these findings, it is recommended that prevention activities should focus on the social acceptability of khat chewing behavior in the region and implementations of behavior changing programs that focus on adolescence and their peers.

**Key words:** Perceptions • Adolescent • Khat chewing • Qualitative method • Peer influence

### INTRODUCTION

Khat or *Catha edulis* is a plant grown in the countries around the Red Sea and Arabic Peninsula and chewed for its stimulant action. In countries lying in the "khat belt" Khat cultivation, trade and use is legal and high prevalence of khat chewing is observed. Jazan region has a unique relation with khat as it can be grown in its mountainous areas and sometimes imported fresh from Yemen. The use of Khat is prevalent among all segments of Jazan population including School students. Many studies have demonstrated that Khat chewing prevalence ranged between 19% to 22% among school students of Jazan region [1-4].

Khat users frequently report increased levels of energy, alertness and self-esteem, sensations of elation, enhanced imaginative ability and capacity to associate ideas. An improvement in the ability to communicate is also reported. Students also argued better ability to review lessons and improved performance in exam [5-7].

Literature review suggested that khat use is associated with many public health problems [8-14]. In addition to that khat chewing leads to loss of work hours, decreased economic productivity and waste of economic resources [9, 14]. Another group of studies demonstrated the clear association between heavy khat consumption and psychosis, research on psychoses

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showed that use of khat describe two main types: a paranoid or schizophreniform psychosis and a manic psychosis [14-22].

Quantitative study techniques especially questionnaire surveys to elicit information on substance abuse have some value providing quantitative indicators about the prevalence of the phenomena under investigation but there is little information on the in-depth of the problem under investigation . In such a context, the use of qualitative techniques like focus group discussions (FGDs) have been well documented [23, 24].

Despite all the negative aspects of Khat chewing the habit, legal restrictions, Khat chewing habit is considerable among young generation. A large number of quantitative researches have been conducted to investigate khat prevalence and its associated factors, but few qualitative methods have been used. The aim of this study is to gain a better understanding of the perceptions of school students intermediate and high school level of the use of Khat. In-depth understanding of student perceptions will help in formulating effective strategies to reduce the prevalence of the habit and its adverse social and health consequences.

**MATERIALS AND METHODS**

**Study Setting:** Jazan region is located on the tropical Red Sea coast in southwestern Saudi Arabia. The region covers an area of 11,671 square kilometers with approximately 5,000 villages and towns. Jazan region runs along the Red Sea coast for almost 300 km. According to the 2010 Population and Housing Census it is a highly populated region with a total population of 1.5 million [25].

**Study Design and Participants:** A qualitative research design was used to reach an in-depth understanding of the students' experiences, attitudes and beliefs on the khat chewing habit. Focus group discussions were regarded the most appropriate method of data collection in this situation. The methodology is based on group interaction and is especially valuable for capturing how views are constructed and negotiated [26]. The focus groups normally build up a group of 6-8 people, selected for their homogeneity on some factor important to the research, such as age or gender [27]. The study targeted students at both educational level intermediate and secondary (high school) students, the age groups between (12-18) years.

Table 1: Distribution of study participants according to gender, age groups and School level

Characteristics	No	%
Gender		
Male	30	42.9
Female	40	57.1
Age Groups		
12-14	30	42.9
15 -18	40	57.1
School		
Intermediate	30	42.9
High Secondary	40	57.1
Total	70	100

Table 2: Distribution of students in the different groups

Level	Male	Female
Intermediate	Two Groups (14 )	Two Groups (16 )
High Secondary	Two Groups (16)	Three Groups (24)
Total	Four Groups	Five Groups

**Sampling Design:** Purposive sample of 60 students were selected from primary and secondaryhigh schools of Jazan Region. Two secondary as well as intermediate school of both gender were selected. Our study involved nine groups and participants with each group ranged between six to eight students, details of distribution of study participants, according to gender and level of schools are presented in Table 1 and 2.

**Data Collection and Analysis:** Medical students were recruited as group’s moderators after given proper training on leading discussions. Group discussions lasted approximately one-and-half hours and, with the permission of the participants, all discussions were audiotaped. After each group discussion, tapes were transcribed. Transcriptions were read several times to allow researchers to develop agreement and an understanding of the ‘themes’ of responses.

**Ethical Considerations:** Ethical clearance and permission was obtained from the local authorities of Jazan Region prior to the beginning of the work. The study proposal and instruments were approved by Jazan University’s Ethical Review Board. Authorization was granted by the headmasters and the Directorate of Education Sectors in Jazan region. During the focus group discussions, students were informed that the information collected would be kept anonymous and that participation is completely voluntary and they have the right to withdraw from the group at any time they wish.

## RESULTS

**Magnitude of Khat Chewing Habit:** There was no doubt among all participants that khat use is widespread in Jazan area. Some mention a great difference between the prevalence in Jazan and that in other areas of the Kingdom of Saudi Arabia. A participant mentioned that "*khat is bringing shame to Jazan area. All people in Saudi Arabia think that all Gizani people chew khat*". Students attributed Khat chewing habit to proximity to Yemen it is legal to cultivate and use. When participants offered to estimate, they gave a range of 70-80% and a few went to an extreme of 100%. When gender differences were discussed some of the participants deny that women can chew khat in Jazan, but the majority admit that women do chew khat, though far less than men, with estimations around a figure of 20% among females in general. Women singers at wedding parties used to chew khat, most of them being of a non-Saudi nationality, argued some students participants.

Among male peers of participants, according to their opinion, khat use among students is widespread as well but less than that observed in adult males. Some agree that it is seen more in high secondary schools than intermediate schools because of age difference; as at the age of high schools pupils start to engage in risky behaviors. Two participants believe that even children below school age can be seen chewing khat in Jazan. Some participants mentioned the existence rural-urban differences in khat use, being more widely spread among rural populations.

**Impact of Social Norms:** The majority of participants agree that khat chewing, especially among adult males, is a well-accepted/common behaviour. However, when participants were asked about their own opinion on the khat chewing habit, the majority had negative views on the habit. Moreover, when participants were asked about their views on their peers who use khat, many of them do not see it as something to judge people with:

*"khat is not something that raises you up or brings you down",*

While some stated that they do not make friendship with those who chew khat. For female participants, they argued that it is far less acceptable to see a female using khat.

Teenage boys, according to participants, can start chewing khat in order to be considered as adults. Some pupils might face peer pressure demanding them to

"*man-up*" and start khat chewing with them. This is not quite well seen with girls and most of them do not necessarily see boys khat-chewers as adults / grown-ups or anything special "he is not a man [*khat chewing does not make him a man*]".

Many participants accuse fathers for being negative role models for their children and they can be a cause of why many children just imitate their parents. "*Bad company*" is the second major influence cited by many participants on school children as early users drag their friends along.

**Health Problems Associated with Khat Use:** Health problems that associated with khat chewing are mentioned by the participants include dental caries, stomach problems, ailments of kidneys, liver, different types of cancer,..etc. Among the positive effects expected from chewing khat mentioned by participants is that it prevents weight gain or it reduces weight. This is attributed by some to that fact that khat chewing sessions continue for a very long time and chewers usually do not eat during the session, instead they consume different types of beverages, soda and energy drinks. Some of the participants mentioned a "rumor" of khat as a treatment for diabetes or as decreasing blood sugar and thus being of benefit for diabetics. This was refuted by the majority saying that it is not well proven or advised by experts (doctors). Some go further and attribute why chewers have low blood sugar; to the fact that they do not eat enough. Many participants mentioned the mood swings of khat chewers. They argued that khat chewers during the session are very friendly and feel good, but when they cannot find khat at the usual time they get very frustrated, nervous and can even start fights.

Khat chewers according to participants can be lazy, sleep a lot and many of them might suffer from insomnia. This might be the reason behind what some participants mentioned of khat chewers being less effective at their work or classes. There was a debate about whether khat can be considered as addictive or not, with participants divided among both assumptions, while some other participants see that depending on the frequency and length of sessions with frequent users being more prone to be addicted.

**Socioeconomic Impacts of Khat Use:** Many participants see khat chewing as a loss of money. Some participants see it as a great burden on family's budget, a few see that depending on the frequency and length of sessions with those who chew daily being vulnerable to financial trouble especially when their income is limited. The Faifa

group participants do not see any financial problem with consuming khat. This is because they consume their own cultivated khat. According to them this should not affect their income from khat selling as their lifestyle and socioeconomic pattern adapt khat cultivation and consumption in the process. Some however do cultivate khat and do not consume it. Many participants consider khat as something that distracts fathers from taking care of their families. Consequences on this regard is neglecting children and not spending quality time with them. Some participants gave examples of people who travel to Yemen with the sole purpose of chewing khat as it is legal, cheap and of high quality, at least because it can be obtained fresh. This further supports the opinion that khat use can disrupt family life.

#### **Schooling/Academic Performance and Khat Use:**

Although khat is considered by most of the participants as something that makes chewers very focused and sharp at the time of the chewing session, it was debatable how it can affect schooling /academic performance. Some people use khat for performing better in exams. While it works with some, especially in those subjects that need memorizing, or in people who prefer memorizing style in studying, but generally it is not useful all the time and can be negative –considering lifestyle effects that participants mentioned.

**Khat and Religion:** Most participants consider khat chewing as *haram*, i.e. prohibited in Islam. Different reasons were given why it is/should be haram. Inflicting harm or damage to those who use it and to their families is one reason cited by many participants. Others equate khat with narcotic illicit drugs or to alcohol. According to them khat chewing has a similar effect on the mind as narcotics or alcohol, as users become confused, disoriented and deviated from reality. Some of the participants labeled khat as addictive. A few participants consider khat chewing as nothing wrong (halal, the opposite of haram) or a minor degree of haram. A participant from a mountainous area in Jazan, largely supported by other participants, started discussion by saying " *a lot of people in our area do chew khat, so what?, where is the problem?!"*

Many participants consider khat a major distracter of doing prayers at the required time.

Some participants, however, think that some people do chew Khat and still manage to do their prayers in time. A few participants are certain that even *imams* and other religious people chew khat. Participants tend to agree that khat chewers are inclined to consider it as halal, whilst

others consider it as a temptation; admitting that they are doing something wrong but "*cannot help it*". Most of the participants did not see anything wrong with khat from the point of view of Islam.

## **DISCUSSION**

To the best of our knowledge, the present study is the first published qualitative research designed to increase our understanding of adolescent's perception about Khat chewing practice in Jazan region and to provide in-depth and comprehensive information and recommendations to combat this habit.

Participants agreed that the prevalence of khat chewing is very high among Jazan population and they over estimated Khat chewing prevalence, than the reported from the different cross-sectional studies conducted in Jazan region, which provided current prevalence ranged from 19% to 22%, whereas students go for 70-80%. Students also suggested the gender differentials between males and females, this is evident from group of studies conducted in the region, but their estimate on female khat use was higher than the reported in the different cross-sectional studies conducted previously in the region which provided current prevalence of ranged between 3.75% to 3.75% [1-4].

Khat has been incriminated in adversely affecting almost all body systems. Participants mentioned many known effects on the cardiovascular, gastrointestinal, urinary, reproductive systems. Participants showed great awareness about what is known. That might also reflect some success of the official awareness-raising efforts. However, no personal experiences were mentioned. On the other hand personal experiences and enthusiasm were greater when neuropsychiatric disorder of khat were discussed. Mood swings are mentioned by many participants and a tendency to be hostile/aggressive after chewing or when there is no khat, this is seem consistent with literature [28, 29]. Insomnia among users was debated; while some were sure about that, others argue that among habitual users insomnia might not occur. Long term sleep disturbance was also said by some not to affect infrequent users. We can find similar findings in the literature about overcoming insomnia as tolerance develops among new adopters of the habit [29].

Dependence, addiction and tolerance were also debated with some participants refusing any attempts at comparing khat with narcotics while others (fewer) try to label khat as "muskir"- a characteristic that usually accompanies alcohol use as addictive/narcotic.

Pupils cited many examples of people who managed to restrict khat use to once per week after a long weekly chewing habit. Some participants tried to link khat use with better control of diabetes, but could not convince the opposing opinion. Low blood sugar that might be encountered with diabetic-khat chewers might be attributed to the fact that during khat session people do not eat, most of them starting with a good meal and do not eat any food except for beverages and energy drinks for the whole night. Khat chewers do not gain much weight for the same reason according to participants. Toxic psychosis/ dependence is cited to be difficult/not to develop in many studies because of the dose limit as it is difficult to attain high dose of active substance through the route used even in the usual time [29, 30].

Religion plays an important role in the life of Muslims, especially in Saudi Arabia which can be regarded as a homogenously Muslim country. Many participants are inclined to say khat is forbidden by Islam. Not a few do not consider as being so. Those who go with forbidden khat cite what exactly Muslim scholars say; being a waste of money on something not useful, distracting people from doing prayers and worshiping God and inflicting harm on oneself. The opposing opinion goes the same way and use the argument used by other scholars who claim that there is nothing explicit in Islam that prohibits khat use and can be regarded as "makrooh" – undesirable or condemned, but not prohibited. The word "muskir" was also used by a few of participants to equate khat with alcohol use, as alcohol is explicitly prohibited in Quran.

The effect of khat on school performance was subject of much debate. Many participants claim that khat makes you study better "*opens your mind*", especially in school subjects that need memorizing rather than deduction or critical thinking. The majority see academic performance depends on the effort on studying rather than chewing khat or not. Some mentioned the long term effect of khat on students' life style on schooling (not attending morning classes or not being attentive or fall asleep during lessons). The association between khat chewing and academic performance was investigated by Alsanosy, 2009 and found that the risk of poor academic performance was high among khat chewers: 39.4% had poor grades, 40.9% were frequently absent from class and 39.6% were on probation as a result of poor grades [31].

As all qualitative studies, the present study has many limitations. First we only included a relatively small sample of participants; second, we were not able to provide a more nuanced comparison based on geographical

distributions or socioeconomic backgrounds. Finally, the qualitative nature of the study means we must be cautious against inferring causality between suggested determinants and Khat chewing behavior of participating students. Social desirability may have biased participants' responses and led them to self-censor their actual views.

Despite the limitations, this study is the first in KSA to provide in-depth information on the qualitative perceptions of adolescence toward khat chewing behaviors among school students of Jazan region.

## CONCLUSIONS AND RECOMMENDATIONS

The findings of this study revealed important and in-depth information for developing effective Khat prevention programmes. Based on these findings, it is recommended that prevention activities should focus on the social acceptability of Khat chewing behavior in the region and implementations of behavior changing programs that focus on adolescence and their peers.

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**Authors Contributions:** All of the authors made contributions to the conception and design of the study. RME, HEE and AMG were responsible for data collection and all authors contributed to the interpretation of the findings. MSM drafted the manuscript; the remaining authors critically reviewed it and made revisions. All authors have approved the final manuscript.

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