PYCHOTIC CONDITION:

TRADITIONAL HEALERS AND THEIR ROLE IN DEALING WITH KHAT INDUCED PSYCHOSIS

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Acronyms

DEA	Drug Enforcement Agency
HIV	Human Immunodeficiency Virus
Mgt	Management
PH	Public Health
TB	Tuberculosis
USA	United States of America
WHO	World Health Organization
Yrs	Years

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Contents

Abstract

The green leaves of khat shrub (catha edulis) are traditionally chewed in Arab countries, the Horn of Africa and East Africa. Somali people are very likely to chew khat for cultural and social reasons among which are attempts to cope with adversity. Several studies with Somali population, correlations between traumatic experiences during flight or civil-war and khat use as well as psychotic disorders were found. The use of khat among youth can be harmful, leading to decreased academic performance, increased risk of psychiatric disorders such as lethargy, hopelessness and insomnia. In some cases it can progress to a stage of hypomania. Toxic psychosis may also result from its consumption, and a number of such cases have been described. Some khat chewers experience anxiety, tension, restlessness, hypnologic hallucinations, aggressive behavior or psychosis.

Based on the above evidences and facts, the study focused on the role traditional healers in dealing with Khat induced psychosis. It particularly aimed at examining the practices among traditional healers while dealing with Khat induced psychosis as well as whether they view Khat induced psychosis and other mental illnesses as the same or not.

Our analysis method was 'thematic/content analysis' a process which involves systematically examining the data and other notes in order to identify themes and develop categories.

The number of female, either owners or managers were less than the male participants, but, interestingly, a quarter were managers which was a good thing when compared to the Somaliland women's decision making status. It has been discovered that the level of education either owners or managers was very low. To add more, the qualifications of the majority of the participants was not-existent while dealing with mental health issues.

The study has also exposed the number of patients admitted different between centers although it may depend on the space. However, most centers admit male and this might show that there are female mentally ill patients neglected. The cost of the admission is determined by the management ($150 per patient) with the majority of centers requiring family to provide foodstuff for their patients. This cost might seem bit expensive for the Somaliland community knowing that the vast majority of the population is poor.

The study has revealed that khat is a green leave that are chewed by some people and that khat is a drug. The respondents argued that khat, like any other drug khat can cause some mental illness especially when used for a prolonged period of time. Most of the respondents explained that a psychiatric doctor administers the admission, duration of stay and discharge after confirming the consent letter from a court and sometimes after consulting his traditional healing center manager/owner. In addition to some other challenges, the challenge that emanate from the patients themselves who believe that khat does not cause any illness and hence, they refuse to take the proper medication. With regard to the plan of the centers in improving the current situation, most of the respondents explained the need for expanding their rational healing centers to accommodate more patient

1. Background

The leaves of the khat shrub (catha edulis) are traditionally chewed in Arab countries, the Horn of Africa and East Africa (1) and recently this habit has spread to Western countries including the USA (2). Due to improved transportation facilities, khat consumption has substantially increased during recent decades. This is reflected in the most recent issue of the World Drug Report: in 2001 five countries reported an increase in khat use and none a decrease; in 2002 an increase was reported in four, a decrease, again, in none (3). Kalix (1996) (4) estimates that about 6 million individual portions ar2e consumed each day worldwide.

Somaliland is one of the countries where current khat misuse has been described (5). During the past decades, the country has encountered an uninterrupted sequence of organized violence, drought, famine, and natural disasters and by end of 2012 approximately 2.3 million of its 9.5 million inhabitants were either refugees or internally displaced; more than 500,000 of them currently stay in Kenya, in large refugee camps in the semi-arid border region or in disadvantaged urban settlement areas (6). Somali people are very likely to chew khat for cultural and social reasons among which are attempts to cope with adversity (7, 8). In severalstudies with Somali populations, correlations between traumatic experiences during flight or civil-war and khat use as well as psychotic disorders were found (9, 10). Recent needs surveys document the large prevalence of psychiatric disorders among Somali people (11, 12).

In the city of Hargeisa, the capital of Somaliland, where khat use is not restricted by law, we observed that current ways of intake do not correspond to the documented traditional use in the region. The traditional way of consumption was socially highly regulated: adult males (more seldom females) would gather and chew khat together at a so-called 'khat party', usually on weekends and afternoons until the time of the evening prayer (13, 14). Contrary to this formerly restricted use, current habits involve use by adolescents, chewing khat in tea-shops that operate day and night, early morning use, as well as "binging" and "speed runs" that may last for more than 24 hours. It was shown that the widespread use of khat is related to the large number of individuals with visible signs of psychosis who are either homeless or kept in hiding, e.g. in physical chains, by family members who afraid to expose them to the general public.

The main psycho-active component of khat leaves is cathinone (alpha-aminopropiophenone) (15). Cathinone resembles amphetamine in chemical structure and affects the central and peripheral nervous system (16, 17) and behavior (18) similarly. Amphetamines and some of its derivatives have been shown to induce psychotic symptoms in experimental settings in humans (19, 20) and animals (21) and have been known to exacerbate psychotic states in psychiatric patients (22). Similarly, khat-induced psychotic states have been described in several case studies. However, the number of group, community and population-based studies on khat use and psychiatric symptoms (10, 12) is still limited. Despite the ongoing scientific debate about amphetamine-induced psychosis it remains unclear whether the use of amphetamine-like substances including khat may actually cause a psychotic disorder in an otherwise healthy individual, or trigger the onset of schizophrenia in an individual with high vulnerability to the disease (23, 24). The fact that presumed amphetamine psychoses do not

fully remit within weeks of abstinence in a substantial percentage of individuals (25) may also suggest that those individuals actually had a amphetamine-triggered schizophrenia. Increased drug use among psychotic patients may also come from an attempt to counteract nonspecific physical symptoms or side effects of neuroleptics (26).

The evidence shows that the use of khat is associated with several social effects—both positive and negative. On the positive side, it serves as an employment opportunity and source of income for those involved in the cultivation and in the chain of the marketing process. It also serves as an export commodity for countries in which it is cultivated. On the other hand, it has been shown to be deleterious in terms of being a factor in family disharmony and breakdown, diverting household and individual income, resulting in delay and absenteeism from work and threatening food security. However, in most of the circumstances, a clear cause -andeffect relationship (or at least a temporal relationship) cannot be established (AyalewAstatkie and YemaneBerhane)

The first goal of this study was to verify the impression of an unusually high prevalence of khat consumption and psychotic disorders in the city of Hargeisa as well as Somaliland in general. In addition, we wish to study the association between khat abuse and psychotic disorders. If khat abuse does induce psychotic disorders, a higher prevalence of psychotic diagnoses, mainly in men (as women rarely consume khat), was to be expected in Hargeisa compared to localities with less khat use.

Khat goes by numerous names: Khat, qat, chat, qaadka, kus-es-salahinmiraa, tohai, tschat, Abyssinian tea, African tea, African salad, and brown cows. The use of Khat is an established cultural tradition for many social situations in the areas of primary cultivation, East Africa and the Arabian Peninsula. Several million people may be chewing Khat worldwide, with an estimated 10 million people chewingKhat leaf daily [27]. Although largely viewed as a social habit, long-term heavy chewing has been recently reported to induce a degree of dependence [28]. Khat is of interest as it one of a few plants that are legally consumed for their ethno pharmacological properties. Debates over the legal status and health effects related to consumption of this plant are currently underway in many parts of the world on account of the spread of consumption from eastern Africa resulting from migration among East African communities[28, 16]. Up until a few decades ago, khat chewing was mainly restricted to older men or members of Muslim communities who used it in lieu of alcohol on religious grounds and, therefore, the habit did not pose serious public health or socio-economic problems [29]. Similarly, khat use in many European countries and Canada has been restricted or made illegal and is as such classified as a controlled substance.

In the United States, the Drug Enforcement Agency (DEA) has asserted that the plant itself, Catha edulis, is a Schedule I substance on a par with opiates for the period it has cathinone in it, i.e. within the first 48 hours of harvest]. Studies of khat consumption in the United Kingdom suggest that the context of consumption (i.e. displacement and social

marginalization) may have significant effects in shaping the outcomes from khat consumption[29, 10].

This review examines the action, constituents and hazards of Khat chewing. It argues that there is a a major association between khat chewing and the health hazards like diminished sexual performance, HIV infection, sexual violence, elevated diastolic blood pressure, affecting urinary and digestive system, periodontitis, liver injury, psychiatric problems, ophthalmological problems. Various complex factors underlie the use of khat. Frustration, poverty and/or dislocation make people susceptible to khat. However, the study was restricted only to Khat induced mental illnesses.

The use of khat among youths can be harmful, leading to decreased academic performance, increased risk of psychiatric disorders such as lethargy, hopelessness and insomnia [30]. In some cases it can progress to a stage of hypomania. Toxic psychosis may also result from its consumption, and a number of such cases have been described [31] [32]. Some khatchewers experience anxiety, tension, restlessness, hypnologic hallucinations, aggressive behavior or psychosis [33]. Also a group of expert in WHO has concluded that khat consumption may induce "moderate but often persistent psychic dependence" the withdrawal symptoms after prolonged khat use seem to be limited, however, to lethargy, mild depression, slight trembling and recurrent bad dreams [34].

In many traditional African Including Somaliland, traditional healers are viewed as having expertise when it comes to mental and psychiatric disorders. Traditional Healing Centers (THC) form a major part of the mental health workforce worldwide including Somaliland. They provide mental health care, treatment and feeding to mentally ill patients.

The THCs provide both out-patient and in-patient services. Based on the condition of the patient, after some interview and assessment on the condition of a patient, the patient is either provided treatment, medication and advice and sent back to home (out-patient services) or patient is admitted into award where he receives treatment.

When admitting a patient into a word, he/she has to fulfill the following conditions:

i. He has to have a letter from the court which testifies that the patient is mentally ill
ii. He has to take a blood sample from laboratory.
iii. He hasn't have any serious medical illnesses like HIV and TB
iv. He has to come with new matrix and sheet in order to sleep.

A family members has to agree with the above criteria with the manager. Additionally, they discuss the duration of the stay and cost.

During the patients' admission, the centers provide either treatment or medicines and/or medications plus Quranic treatments. The in-patient department there are solders, watchmen, cleaners, cooks and nurse. These staffs usually stay regularly on daily bases but doctor and sheikhs come sometime and look patients. The length of stay usually decided by relatives and managers.

Based on the above evidences and facts and the important role they play in dealing with mental illnesses, little systematic examination has been done regarding their effectiveness in treating Khat induced psychosis.

As a result, the study focused on the role traditional healers in dealing with Khat induced psychosis.It explores experiences and views among traditional healers khat use as related to mental illness, in particular psychosis. The benefit of conducting the study is mainly to know more about traditional healer's views and practices in this area for future joint interventions to reduce mental health problems related to khat use.

2. Aim of the study

The study has the following objectives:

- To examine the views among traditional healers on the relation between khat and mental illness, in particular psychosis
- To assess practices among traditional healers related to khat use and mental illness, in particular psychosis

3. Materials and Methods

The study was conducted at Hargeisa city, the capital city of Somaliland. It is located in an enclosed valley of Ogo highland with an elevation of 4,377 Feet (1337 meters). Its temperature ranges from 13 to 32 degree Celsius with annual rain fall of 400mm. The latitudinal position of Hargeisa is 9.5 north and longitudinal position 44.1 east. Hargeisa has six districts. There is no census but the total population of the city was estimated to be one million.

Currently in Hargeisa, there are more than hundred traditional healing centers only 20 registered in Ministry of Religion. In ministry of health 8 rehabilitation centers were registered.

The study design was content analysis because the research looked for any frequently occurring common themes. The common themes were words, sentiments and beliefs that participants used or revealed during the interview. In total of around 10 traditional healers as Key Informants (KI) was invited to participate in but only eight were available and interviewed. Key informants were selected using purposive sampling, the most common sampling method in qualitative research. The Key informants will be male and female traditional healers who are well recognized as such in the community and who have practiced for at least two years in Hargesia city.

According to Interview procedure, the focus group discussions were conducted by a moderator and attended by a note taker. The moderator was guide the discussion based on an interview guide using a series of open ended questions covering the research questions. The moderator encourages participants to become actively involved in the discussion and ensured that each participant was have an equal chance to contribute. An audio tape was used for recording the meeting, supplemented by hand-written notes.

A person fluent in the local dialect was hired to transcribe the audio recordings. The local Somali transcripts was translated into English by the first author (ST), who is a psychiatrist, and the accuracy of the translations was cross-checked by the coauthor (TS), a Somali mentor who has good command of both languages.

Our analysis method was 'thematic/content analysis' a process which involves systematically examining the data and other notes in order to identify themes and develop categories. We went through the process of systematically reducing the massive raw data to identify concepts and themes relating to our research question i.e. identifying how the participants conceptualize Khat induced psychosis, symptoms of Khat induced Psychosis and what kinds of interventions does traditional healers prefer for Khat induced psychosis. The researcher coded each transcript by using open code software or manually. Multiple coding was considered to be one of the methods to maintain rigor in qualitative research. The coding was predominantly closed to the text using the participants own descriptions. The codes will be grouped in to categories. Any discrepancies were discussed. Anonymous quotes will be used to illustrate the fact.

4. Results, Discussion and Conclusion

4.1. Results and Discussion

The following chapter highlights the data collected from the respondents involved in the study. It explains the results achieved through the research objectives namely; to explore the views among traditional healers in relation to Kat induced psychosis vs other mental illness psychosis; and to assess practices among traditional healers related to khat use and mental illness psychosis. Eight traditional centers in Hargeisa has been selected. All of themwere available for interview. Out of the eight respondents, three were owners while the rest were traditional center managers.

Out of the eight respondents interviewed, only two were females while the remaining six were males. In addition to this, four of the male respondents were owners of the traditional centers while two of the female as well as the male respondents were managers correspondingly. The number of female either owners of managers if much less than that of men.

It's very rare that in Somaliland women are managers but, surprisingly the study has found out that 25 percent of the female participants were managers.

As the below table shows, the average age of the participants is 45 and this is the perfect age which a person can be able to take the responsibility, caring and managing the patients.

Below table shows the highest completed level of education of the trainees is the degree level while the highest number of participants have completed intermediate level with a number of 4 participants while only one participant has completed secondary school. When added to their qualification, the 3 persons with the degree level, 2 of them has Bachelor's Degree in Public Health and the remaining 1 participant was a nurse.

Interestingly, the study revealed that the level of education of the participants was low and this could affect directly and/or indirectly with their ability to lead and manage their centers.

The below table shows that male participants are less educated although the number of male participants were more than that of the females.

As can be seen from the below table, 2 of the traditional center owners have degree level while with the same number of 2, has either secondary or intermediate level. This shows that fifty percent of the owner participants have very low education. While comparing, the managers, the majority of them have very low education as well.

The study revealed that the participants have very good experience in either managing or leading their centers. The participant with the lowest score has 7 years of experience while the one with the highest experience scored 20 years.

The participants has been asked about the number of their patients currently admitted in their centers. 6 of the centers admit only male patients while 2 centers admit both male and female patients. It has been also revealed that they only admit adult patients those who don't have communicable diseases like TB (Tuberculosis) HIV and non-communicable diseases such as diabetes. It has also been discovered that 6 out of the 8 centers has religious mode of treatment: which contains Quran recitation, Holly water and Herbal medicines. However, the 2 remaining centers have no such religious treatment.

The below table show the average number of patients currently admitted in the centers, the center with minimum number of patients has 20 admitted patients while the center with the highest number of patients has 500. While comparing centers, there are variations, some centers has 50, 150, 100, 35, 120, and 80. The center with 80 is combined with 20 female patients and 60 male patients, while the center with 100 patients contains 20 female patients and 80 male patients.

The cost of admission and caring includes medications, accommodations, and food. There has been difference between centers about the cost, the center with the lowest score costs $120 per month per individual while the highest costs with $150. However, the majority (5 centers cost per individual is $150). Those who cannot afford to pay the cost phase problems except some of the traditional healing centers give free services but the majority stay in their home that needs further research.

Remarkably, it has been exposed that centers are indifferent in providing such admission and caring. 6 out of the 8 centers provide only accommodations and medication but no foodstuff. The remaining 2 centers offer all provisions. When considering the current socio-economic of Somaliland, the cost of admitting a patient to a traditional centers seem bit too high.

The duration of admission differs and depends on the situation of the patients and their family. The minimum duration of admission is up to six months on average while the longest duration could be 7 years, yet dependent on whether the patient was fully or partially cured or the family decided to take away their patient for somewhere else or for some other circumstances which might include the affordability of the centers.

All though studies show that there is a controversial whether Khat is a drug or not, but the study reveals that Khat is a leave which usually grow in Ethiopia and Yemen. It has been also added that it is a drug just like any other drug which people become addicted to in order to get gratification, hyperactive and a bit energetic and excitement. Furthermore, Khat gathers people together in order to socialize, spend some quality time with friends and family in general and sometimes in occasions such as holidays and sometimes even to work. Few respondents said that Khat is not a drug but just a recreational activity.
However, all respondents agreed that Khat gives people enjoyment, excitement, anxiety, paranoia, intoxicated and get. Moreover, it creates increased alert, stress, loss of appetite, depression, manic behavior, anxiety, and loss of energy, paranoia, and psychosis. As one participant emphasizes, there are cases where Khat makes people less talkative and just wonder and move around.
All these responses indicate that Khat is associated with physical addition and it can cause psychological dependency.
In general there is no study shown that chewing Khat can cause mental illness in Somaliland Scientifically. All of the respondents agreed that chewing Khat can cause mental illness, at the same time, comparable to other drugs that can cause mental illness and became addicted to it.

However all respondents agreed that khat manifests of all the signs and symptoms of mental illness. Furthermore in psychotic signs and symptoms like suspicious, hyper active, talkative, irritable, moving around, silent, talking alone, and specific psychotic symptoms like Hallucination and delusions. As one respondents emphasis that chewing khat may cause depression at the end.
In addition to that some of the respondents agreed that prolonged use of khat can effect person's work and responsibilities even at the end, he/she will develop mental illness.
Only one respondent experienced that when a known mentally ill patient chew khat, his mental illness deteriorates more. Very view respondents mention that khat has social, economic and psychological effects.

Most of the respondents believe that it is not easy to differentiate kat induced psychosis from other psychotic disorders. Even, some of the respondents said that they cannot at all differentiate the two and that it is the family of the patient who tell them whether the cause of the illness is kat or not. However, most of the respondents have tried to make some demarcations between the two scenarios by looking from different perspectives. Some have seen from time perspective and said the psychosis caused by kat is observed on the person for a shorter period of time competed to those caused by other psychotic disorders which stays for a prolonged period of time. One of the respondents said, when a normal person starts chewing kat, he becomes in a psychotic condition within two hours and the condition stays for more hours after finishing kat depending on the type of leaves he has chewed. Another respondent said kat costs some patients a lot of time lost in searching money which is used for buying kat.

KI 2, "It's a bit difficult to differentiate the stress and depression caused by kat and other mental illness, psychiatrist doctor in our clinic first interviews and consults with the person and then differentiate whether the case is kat induced psychosis or other psychiatric illness".

Other respondents have evaluated the difference from behavioral change perspective and said, after hours, a person who chews kat can get back to normal condition and manage himself and his business without taking any medicine while other psychosis patients cannot. However, by the time they are chewing, anxious and irritable compared to the other psychosis patients having excessive worry which is very difficult to control and feeling sad without having huge problem.

Some respondents have chosen to evaluate the difference from the perspective of the type of prescription and assistance the patients need and said, other psychotic induced ill patients always improve taking medicine and getting rest while people who chew kat sometimes did not need any medicine. They need advice and guidance rather than formal medicine

KI 3. "A healthy person chews kat then develops a behavioral change as soon as he finishes all leaves, he becomes a normal person and manages his daily life and responsibilities. While other mental illness can be caused by stress, depression and schizophrenia and may not rely on kat usage".

In this section, the operation method of the healing centers with regard to the patient such as admission, duration of stay, management, discharge and follow up will be discussed.

With regard to admission of the patient, almost all the centers follow the same procedure according to the respondents with slight differences. Most of the respondents said, when the patient arrives, a psychiatric doctor examines the patient and tells the relatives whether the patient needs to be admitted or not. If admission is required, the relatives of the patient are enquired to bring a letter from the court in case any legal issue arises. With this letter, the doctor approves the admission and the patent is admitted after the relatives fill out and sign

the admission form of the center. However, according to some respondents, the managers of the traditional healing center have some role in deciding the admission of the patient.
The duration of stay of the patient is predetermined by the doctor and sometimes together with the manager according to the respondents. However in some cases the duration of the stay of the patient depends on the condition of the patient. In general, the patients are admitted for a month or more and sometimes for a year or so.
With regard to managing the patient, the traditional healing centers have the responsibility of sheltering, feeding and keeping their personal hygiene of the patient. All the respondents said that, they provide shelter, food and personal hygiene to the best of their ability.
With regard to discharging the patient, almost all of the respondents said it is the responsibility of the psychiatric doctor. After improvement and recovery is observed on the patient, the doctor checks whether the patient is capable of being discharged and decides the matter. In some centers the discharge is made with the consent of the center manager. Anyway, before the patient is discharged, an orientation is given on what is good and what is bad for the patient. In addition, some advices are provided for the patient and the family of the patient.
With regard to the follow up of the patient, most of the respondents said we do not have a formal follow up mechanism. However, some of the respondents have mentioned that they provide some advice to the relatives of some patients after the patients are discharged on condition that the relatives comeback to the center.
Several challenges have been affected by khat induced psychotics patients. One of the challenges is the patient himself, as respondents agreed on that patients did not belief that chewing khat may cause mental illness and due to that reason they refused take medicine. That is why they started again chewing khat and which is very difficult to stop using khat. However during stay of the centers, some of the patients develop some complication like diabetics. Very view respondents say that the patients are generating the income of the family and the family cannot afford the cost of his illness. It has been also added that the family or relatives did not inform the patients that they are going to admit him. Because of that the patient says to you, that he will never stop chewing khat. One respondent says that the khat induced psychotic patients usually feel boring and they want to do some activity in order not to feel boring.

The other challenges are the relatives of the patients. Majority of the participant reveled that, almost all of the family like to keep their patients in the center for a long period of time and didn't like discharging. All of the respondent worrying that relatives of the patient did not came back and disappear from their patients who make them very difficult to give advice and counseling. One respondent emphasized that the family didn't understand the condition of the patients
The last challenge is the service of traditional healing centers. Majority of the respondents agreed that they have insufficient staff with lack of training and they have low space. In addition to that one respondents reply sometimes the physician is very busy and may not come regularly due to this issue we cannot admit patients any time.
However majority of the respondents complaining that the discharge of the patient is very difficult because the family disappear and did not want to coma and take their patients.

Although two respondents emphasized that there is some cases in which saying to you the court doesn't want to our institution and didn't give the family to the letter of admission. We are very worry about this issue so the court like some institution and dislikes the other institution.

One respondent interestingly say that our institution cannot cover the all needs the patients more over we didn't have international standard and protocol of admission and discharge. While other two respondents mention that they did not have rehabilitation center and even there is no suitable environment to their patients.

Improving the situation of traditional healing centers will increase the service of mentally ill people and reduce the impact of mentally ill patients several areas of improvement has been raised by the respondents. One of the areas is expanding the traditional healing center, training staffs and improving guideline and protocols.

All most majority of the respondents said that increasing the size of the center will improve traditional healing centers and make environment very suitable. However, some of the respondents like to establish rehabilitation center. Only two respondents emphasized that having child psychiatry department well help supporting child mental ill people since there is no child psychiatric department in the country, while another participant thinking to start modern psychiatry hospital with the department of addiction, emergency and psychiatric criminal departments.

KI 8, "In the future we are thinking to start psychiatric hospital which has addiction department, rehabilitation department, emergency department and child department, even psychiatric criminal center. The hospital will have international stand of admission, discharge and follow up"

The other areas are training staffs, improving guide lines and protocols. As majority of the respondents said that training staff specialty assistance and physician will improve our work whereas only one of the respondents wants to train his staffs how to manage substance dependence.

Moreover majority of the respondents want to get international standardized guidelines and protocols of admission and discharges, though only one respondent emphasizes the need to do awareness campaign through Television and Radio.

The number of female, either owners or managers were less than the male participants, but, interestingly, a quarter were managers which was a good thing when compared to the Somaliland women's decision making status. It has been discovered that the level of education either owners or managers was very low. To add more, the qualifications of the majority of the participants was not-existent while dealing with mental health issues.

The study has also exposed the number of patients admitted different between centers although it may depend on the space. However, most centers admit male and this might show that there are female mentally ill patients neglected. The cost of the admission is determined by the management ($150 per patient in each month) with the majority of centers requiring family to provide foodstuff for their patients. This cost might seem bit expensive for the Somaliland community knowing that the vast majority of the population is poor.

4.2 Conclusions

Most of the respondents believe that khat is a green leaves that are chewed by some people and that khat is a drug. The respondents argued that khat, like any other drug khat can cause some mental illness especially when used for a prolonged period of time. Regarding the difference or the similarity of khat caused psychosis and other psychotic illnesses, most of the respondents argued that khat caused psychosis is different in affecting the behavior of the person. It is also different in the need for formal medication. Regarding the methods of operation for admission, management and discharge, most of the respondents explained that a psychiatric doctor administers the admission, duration of stay and discharge after confirming the consent letter from a court and sometimes after consulting his traditional healing center manager/owner.

Regarding the challenges, most of the respondents similarly mentioned the main challenges. One of the challenges emanate from the patients themselves who believe that khat does not cause any illness and hence, they refuse to take the proper medication. The other challenge

comes from the patient's family or relative which do not like discharging the patient even after they fully recover. The third challenge comes from the service providers in the center which do not have well trained staff, enough space and guidelines/protocols to manage the patients. With regard to the plan of the centers in improving the current situation, most of the respondents explained the need for expanding their rational healing centers to accommodate more patients. They also mentioned the need for well trained staff to be hired in the centers as well as the need for improved standardized guidelines and protocols for managing the patients and the centers.

4.3 Recommendations

- There is a need for a greater level of awareness of khat induced psychotic for the community at large, the paramedics, the managers and owners of the traditional healing centers.
- For the physicians, there must be clear demarcations between managers and physician for admitting and discharging patients.
- There must be national guidelines and protocols relating Diagnosis, Management, Admission, discharge and follow up.
- It is very important to have nationally mandated body which all traditional healing centers will be responsible for like the ministry of health in addition to the consultation with the court.
- Regarding the cost, as explained above, all the centers charge expensively when compared with the living standards of most of the people in Somaliland. Hence. It would be important to reconsider the cost and make cheaper to the extent possible

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Annex I. Key Interview Guide

1. What is your view on Khat use?"
2. Does chewing khat cause mental illness?
3. What is the difference between khat induced psychosis and other psychotic disorders?
4. How does your healing center operate?
    - Admission
    - Duration of stay

- Management
- Medication
- Discharge
- Follow up

5. What are the challenges and problems you face when dealing with Khat induced psychotic patients?
6. What can be done to improve the current situation of the traditional healing centers?