

Substance abuse and the risk of readmission of people with schizophrenia at Amanuel Psychiatric Hospital, Ethiopia

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Frequent readmissions of people with schizophrenia pose considerable pressure on the psychiatric service provision of Amanuel Psychiatric Hospital. The purpose of the study was to ascertain factors mainly contributing to the rate of readmissions of people with schizophrenia. Descriptive survey methods and qualitative focus group interviews were employed to conduct the study. Random sampling techniques were used to select 43 respondents of people with schizophrenia from 231 people with schizophrenia who were readmitted for two or more times in the last two years and who gained access during the time of the study. Structured interviews were used for respondents of people with schizophrenia. Fourteen (N=14) family members/caregivers were selected using purposive sampling methods for focus group discussions. Quantitative data was analyzed using the SPSS Version 11.00 program and the qualitative data was analyzed by generating themes and categories. The results suggest that alcohol and khat abuse were contributing factors for the rate of readmissions of people with schizophrenia into the Amanuel Psychiatric Hospital. It was found that communities contribute to the problems of substance abuse by providing and/or selling it to those mentally ill people. The study also revealed that patients use alcohol and khat in order to tolerate the severe side effects of the anti-psychotic drugs, to suppress hunger due to shortage of food and to avoid drowsiness. Raising community awareness, psycho-education, strengthening the capacities of caretakers and laws to prevent substance abuse, as well as campaigning to prevent people from abusing mentally ill sufferers, should be established.

Background information

Schizophrenia is a severe and chronic mental disorder for which it could possibly be said that common factors such as drugs and substance abuse, social problems (stigma) and poverty, exacerbates the illness (Hertz & Melville, 1980: 801-805).

Problems associated with substance abuse contribute to challenges in the management of people with schizophrenia at the Amanuel Psychiatric

Hospital in Ethiopia. The prevalence of substance abuse and dependence on substances is often overlooked or underestimated in individuals with schizophrenia. Estimates of the incidence of concurrent substance abuse or dependence range as high as 40% of people with schizophrenia and the lifetime incidence is even higher - up to 60% in some studies (American Psychiatric Association, 1994: 386). Substance related disorders are associated with more frequent and longer

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periods of hospitalization, and homelessness, violence, incarceration, suicide and HIV infection (ibid). However, Sanguineti, Samuel, Schwartz, and Robeson (1996:392) disputed this view and point out that the rate of readmissions is poorly related to comorbid psychoactive substances. Their findings indicated that the patient with a high risk of readmission is usually a young, unmarried, African-American male, who has schizophrenia without comorbid substance use. Sullivan, Wells, Morgenstern and Leake, (1995:1749-1754) in a study conducted at two state mental hospitals, found that modifiable factors (such as medication non-compliance, family rejection and alcohol abuse) are strongly linked to frequent re-hospitalization.

Some patients may have abused alcohol, drugs or both. The amount of substance abuse has statistical significance for a high possibility of relapse and readmission, according to certain studies, such as, a study conducted in South Africa by Gillis, Sandler, Jakoet and Elk, (1986:735-739) who suggested that there is a strong association between substance abuse (such as cannabis and alcohol abuse) and readmission of people with schizophrenia among Black and Coloured cohorts.

Although several reports indicated that alcoholism is becoming a major public health problem in Africa, the harmful effects of alcohol intake have not been well studied (Kebede & Alem, 1999:30). Traditionally brewed alcoholic drinks are widely used by the Orthodox Christian, male population in Ethiopia (Alem, 1997: 22). There was no study conducted to measure the magnitude and effect of excessive alcoholic consumption in the country; however, the few studies conducted on urban adolescents in Addis Ababa, Ethiopia, have reported a prevalence of 34% for regular alcoholic use and 7-9% for moderate to heavy drinking, (Kebede & Ketsela, in: Kebede & Alem, 1999:30). The risk of alcoholic drinking and problems with employment was 39% (Kebede & Alem, 1999:30). A study conducted in Butajira, Ethiopia reported that the prevalence of alcohol use was 23.4% and of all users, 15.7% were found to be problem drinkers (Alem, 1997:81). Although, there was no research done on substance abuse and rates of readmission in Ethiopia, it was personally observed that the most frequently readmitted people with schizophrenia, abused alcohol and khat.

Khat (*catha edulis*) commonly grows in Ethiopia, Yemen and Kenya. It is also reported that khat grows at some high altitudes in South Africa and Madagascar. It is named 'chat' in Ethiopia, 'qat' in Yemen, 'mirra' in Kenya and 'qaad' or 'jaad' in Somalia, but it is commonly known as 'khat' or 'qat' in the literature. A house-to-house survey conducted in Butajira (rural community) Ethiopia by Alem, Kebede & Kullgren, 1999:84, indicated that 55.7% of the population reported a lifetime of khat chewing experiences, and 50% of whom were current khat users. Of these 17.4% use khat on a daily basis. People use khat for different purposes, such as to increase concentration, energy, alertness, improve self-esteem, to elevate mood, for social interaction, for improved farm work, for improved study by high school and college students, for praying by Muslim people and even to alleviate boredom (Alem, Kebede & Kullgren, 1999:84). A study conducted among Agaro High-School students (khat growing area) and Gonder Medical College students (non-khat growing area) reported a prevalence of 64.9% and 22.3% khat chewers respectively (Adugna, Jira & Molla, 1994:161-166, in Alem, 1997:14). In some parts of the country khat is used as a remedy for different types of diseases and to suppress appetite in time of shortage of food (ibid). The principal investigator of the above - mentioned study indicated in a personal communication that a high proportion of patients chew khat at Amanuel Psychiatric Hospital.

Khat contains psychoactive substances, of which cathinone is the most active central nerve system stimulant, with effects similar to that of amphetamine (Griffith, Gossop, Wickenden, Dunwarth, Harris & Lloyd, 1997:281-284). Few khat-induced psychotic cases among Afro-Arab immigrants are reported from Europe and America. Khat-induced psychotic symptoms include paranoid states, acute schizophrenic symptoms and common manic features. Khat-induced psychosis has also been reported from Ethiopia at Amanuel Psychiatric Hospital in Addis Ababa (Alem, Kebede, & Kullgren, 1999:85). The problems associated with khat consumption and rate of readmission of people with schizophrenia have not been studied in Ethiopia.

The Amanuel hospital is situated in a slum area of the city, surrounded by a big congested grain market, overcrowded with pack-animals, loaded trucks, street

vendors and passengers. Everyone has to cross this congested place to reach the Amanuel Psychiatric Hospital. Many patients and their families, especially those who come from rural areas to this hospital, are often mugged in this market. Old shanty houses built against the wall of the hospital make it easier for the patients to jump over the fence onto the roofs of these houses to get access to substances such as khat and alcohol (personal observation).

Statement of the problem

Readmission of people with schizophrenia into the Amanuel Psychiatric Hospital have been increasing in recent years and present considerable health care problems and pose substantial pressure on the hospital services. People with chronic schizophrenia, due to the high rate of relapse, inappropriately occupy most of the acute hospital beds. As a result, these beds are unavailable to acute mentally ill patients. Those often-rehospitalized people with schizophrenia can also have an effect on the quality of services offered to others. It creates serious disruption to, and diversion of, staff time and attention. It also adversely affects the ward environment for other patients. Although the problems are common due to the growing burden of mental illness, no studies have been conducted which can assist to solve the problem by finding out the concomitant factors influencing the high rate of readmission of people with schizophrenia. The objective of the study is therefore to identify factors contributing to the rate of readmissions of people with schizophrenia into the Amanuel Psychiatric Hospital.

Method

Research design

A survey design using interview schedules and qualitative focus group discussions were employed to conduct the study. The two (triangulation) methods were used to obtain quantitative information from people with schizophrenia and detail qualitatively information from caregivers. Combining the two methods is advantageous to see the matter from different angles as well as to get more accurate and valid information.

Study population and sampling methods

The study population consisted of all

people with schizophrenia who had been readmitted to the Amanuel Psychiatric Hospital for two or more times in the last two consecutive years and reached during the time of the study, and also family/caregivers of those frequently readmitted people with schizophrenia.

People with schizophrenia were identified from file records using the Diagnostic and Statistical Manual of Mental Disorders - 4th edition (American Psychiatric Association, 1994:470-479) diagnostic inclusive criteria for people with schizophrenia. It included those between the ages of 21 to 50 years who had been undergoing treatment for the last two consecutive years and admitted two or more times into this hospital. After the index patients were identified, it was necessary to use further screening criteria. These screening criteria used were: (1) who were in remission, (2) who were able to give consent, and (3) respond to questions/able to communicate. Two hundred and thirty one (N=231) people with schizophrenia who fulfilled the screening criteria were listed, of whom 68 were in-patients and 163 were out-patients. Out of 231 people with schizophrenia, 46 were randomly drawn, using simple random sampling techniques.

First their folder numbers were written down on pieces of paper that were then carefully and evenly folded into uniform shapes and sizes. These carefully folded folder numbers were put on a plain table and mixed. Then 46 numbers were randomly drawn. Of these selected participants, thirty (N=30) were men and thirteen (N=13) were women.

The focus group participants were selected from care giving family members of people with schizophrenia, who were readmitted into the hospital for two or more times using purposive – convenience sampling method. The selection process had tried to include parents (father, mother), spouse, brothers, sisters, relatives and/or non relative caregivers. The selection also considered gender sensitivity, socio-cultural and residential differences and rate of readmission. Each participant was contacted at first by telephone and in person, and asked their willingness to participate in the study. The composition of the group had important implications for the outcome of the discussions.

Method of data collection

Three (3) schedules were disqualified due to incomplete responses. Eight (8)

respondents who were unable to respond to the questions were replaced by randomly selected other respondents. Structured interviews were used to collect information from the study sample (N=43) of people with schizophrenia. Both closed and open-ended questions were used to gather information regarding the socio-demographic characteristics and clinical information mainly associated with substance abuse contributing to the rate of readmissions of people with schizophrenia.

Fourteen participants (N=14) were recruited from families/caregivers of people with schizophrenia using a purposive-convenience sampling method. Krueger (1994:78) points out that the focus group size should be between 6 and 9 participants. Neuman (2000:274) suggests 6 to 12 participants. In this study two focus group discussions were held, with seven (7) participants in each group. Both sessions were conducted in the course of one week. Two hours were set aside for each session. The discussions were held at Amanuel Psychiatric Hospital library room. A preliminary interview guide was drafted, which started from more general questions and moved to more specific questions about the same topic. The interview guide helped the interviewer to remember the purpose and the areas of interest and to provide directions for the group discussions. Stewart and Shamdasani (1990: 62) suggested that the interview guide should consist of fewer than twelve (12) questions. The interview guide questions were: (1). Please tell me anything you like about your mentally ill family member; (2) What, in your opinion, are the causes of his/her illness; (3) What are the reasons, in your opinion, for his/her repeated readmissions into the hospital; (4) In your opinion, what are some of the major problems confronting you in caring for the patient; (5) What are the negative responses and challenges that you experience from your neighbors and other community members regarding the patient; (6) What is your opinion of the services rendered to the patient by the Amanuel Hospital; (7) Please describe the patient's relationship with (a) his/her family members, (b) friends, and (c) colleagues; (8) Can you tell me how a mentally ill person should ideally be treated and the reasons therefore; (9) You are welcome to provide me with any comments or suggestions regarding the readmission of people with schizophrenia. Additional probe

questions, (such as: Could you explain/clarify more on this issue? What influences you to say this? Are there perhaps other reasons or explanations you can mention) were used to assist the respondent in replying fully to the main question and getting to the point.

Since the structure interview schedule and focus group questions were framed in English, it was necessary to translate from the original English language into the local language. A second translator then translated the interview questions independently, from the local language to the original language. The result was compared to identify and correct semantic errors in translation. The process of back translation served to maintain the literal accuracy of the concepts and meanings in translation.

Procedure

A pilot study was conducted to determine the effectiveness of the structured interview questions with five non-randomly selected people with schizophrenia. Those who participated in the pilot study were not included in the main research.

The time allocated to conduct the interview with each respondent of people with schizophrenia was not absolutely fixed due to the slow response rate among some respondents; however, the range was between 20 and 40 minutes. The response for both closed and open-ended questions were coded in numbers to facilitate the data capturing process with the computer.

The focus group discussions (FGD) were conducted for two hours (14h00-16h00) in two groups. Interviews were tape-recorded. The researcher posed the question for discussion and attentively observed the reaction of the discussants. All participants were encouraged to participate in the discussions and ensured all points that were raised were discussed. A moderator was present and took notes as the participants were discussing the matter and ensured all discussions were recorded.

Data analysis

The analysis was done using the Statistical Package for the Social Sciences (SPSS) Version 11.00 program and with aid of an experienced person in the field. The response for both close ended and open-ended questions were coded in numbers to facilitate the data capturing process in the computer. Data

Table 1. Substance abuse at the time of interview

Type of subs. abuse	Frequency and percentage (%)			Total %	
	Yes	No	NR	Total	100 %
Alcohol	11(25.58%)	31(72.09%)	1(2.33%)	43	100
Khat	18(41.86%)	25(58.14)	—	43	100
Drugs	2(4.65%)	38(88.37%)	3(6.98%)	43	100

*NR: No response. *Khat: psycho- stimulant plant

As depicted in the table, the majority of the respondents 31(72.09%), 25(58.14%) and 38(88.37%) had denied the use of alcohol, khat and psychoactive drugs respectively. The question pertinent to alcohol was ignored by 1(2.33%) respondent and 3 (6.98%) had refused to answer regarding the use of drugs. However, 11 (25.58%) of the schizophrenic respondents had reported the use of either or both alcohol and khat (18) on a daily basis, at the time of the interviews.

was summarized, compiled and grouped into frequency tables and graphs. The associations and relationships among the variables were examined. The statistical significance of tests based on the research question was produced.

The data for focus group discussions was analyzed by generating themes and categories. Investigator and moderator both made field notes and memo's about the interview. As soon as the interview was completed the investigator and the moderator discussed the interview content and combined the notes and the memo's. Tapes were transcribed verbatim and the data was reduced to key phrases and words and into major categories and sub-categories according to their similarities in meaning and content. Redundant items were then omitted.

The process of content data analysis involved the simultaneous coding of raw data and the construction of categories that captured relevant characteristics of the document content. A tabular format was used to group items into themes by using the cut and paste method (Stewart& Shamdasani, 1990:104 - 105). A narrative description of the categories that were constructed was written.

Validity

Despite the difficulty in testing the validity of the research instruments used for this study due to a lack of time and insufficient resources to get an optimum sample size for the study, it is presumed that the combination of the research methods used as a way of triangulating evidence, the results obtained from the

pilot study, the successful completion of the interviews and obtaining the required information, could be suggestive of contributing to validity of the instruments used in the study.

Ethical consideration

Permission to conduct the study was sought from the hospital ethical committee and the medical director. The purpose of the study and procedure used to recruit the participants were clearly explained both in a letter and verbally. The respondents were ensured that their identity would remain anonymous and their responses confidential. Respondents were provided with sufficient information to allow them to decide whether they wished to be part of the research or not. Furthermore, they were allowed to withdraw from responding at any point in time. The participants in the focus group interviews were also additionally ensured of their right to privacy, which included their right to object to the use of tape recorders. Due to the mental status of respondents of people with schizophrenia, it was not easy to obtain complete answers. Eight (8) respondents were replaced by others due to their incomplete responses. It took more time than expected.

Limitation of the instruments

The findings from the survey data were less useful than anticipated and statistical significance could not be obtained on data analysis. This may have been due

to unreliable answers obtained from the responses of people with schizophrenia. However, useful information was derived from the qualitative focus group data.

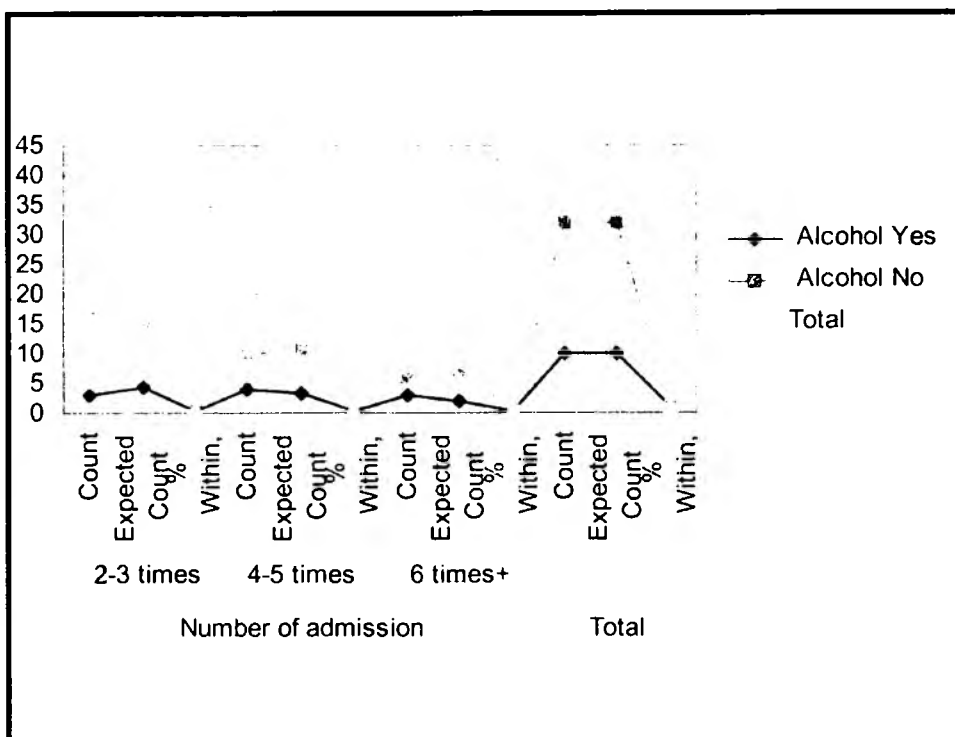
Survey results

The responses from the interview schedules were coded in numerical order of highest frequency. The data was analyzed and represented in the form of frequency distribution tables and bar graph.

Results from focus group discussions

Conventional methods of content analysis were used to identify coherent and important themes. Quotations and observations noted in the group interaction were combined and then subdivided into coherent categories and themes. The themes that emerged from the focus group discussions were: abusing khat; locally produced alcohol, known as Arekie, Tella and Tej; poor community awareness; Khat chewing is like eating "injera"(a traditional food eaten by most of the people everyday); free availability of substances for abuse; chewing khat as part of culture; problems encountered due to the sellers of khat and alcohol; side-effects of medication; and, to suppress hunger. Alcohol and khat abuse were frequently mentioned during the discussions as the number one problem in caring for their mentally ill relatives. Some data obtained from focus group discussions were redundant and overlapping due to the interview

Figure1. Number of admissions and alcohol use



The graphs show that the numbers of non-alcohol abusers are greater than the number of alcohol abusers at all expected counts. Where the highest number (16) of non-alcohol abusers were shown, the readmissions rate was 2-3 times. The graph also shows that as the number of alcohol non-users decreased in the group, from number 16 to 10 and to 5, the number of readmissions increased from 2-3 times to 4-5 times and to 6+ times.

Profile of FGD I participants

Code No	Sex	Age	Relationship with patient	Work condition
FGDI-1	F	22	Wife	Housewife
FGDI-2	F	38	No relationship	Housewife
FGDI-3	M	39	Brother	Company employee
FGDI-4	F	49	Mother	Housewife
FGDI-5	M	54	Father	Pensioner
FGDI-6	F	43	Mother	Housewife
FGDI-7	F	50	Mother	Housewife

Source: Own survey (30Jan, 2003, Addis Ababa).

Profile of FGD II Participants

Code No	Sex	Age	Relationship with patient	Work conditions
FGDII-8	M	59	Father	Private business
FGDII-9	F	30	Sister	Unemployed
FGDII-10	F	40	Mother	Housewife
FGDII-11	F	35	Sister	Secretary
FGDII-12	F	35	Sister	Private business
FGDII-13	F	32	Sister	Housewife
FGDII-14	M	48	Husband	Private business

Source: Own survey (04Feb, 2003), Addis Ababa)

The gender distribution in the profiles of both focus group participants reflect women to be more involved in caring for their mentally ill family member.

guide questions being similar to one another. The profile of the focus group participants is described below.

Profile of FGD participants

Ten of the 14 FGD participants were women. Six of carers were parents (2 fathers) five were siblings (4 sisters) and two were spouses (1 a husband). One caretaker was no relation. The carers ranged in age from 22 – 59 years with an average age of 41 years.

Alcohol and khat

The focus group discussants reported that alcohol and khat abuse exacerbates the relapse of the psychotic illness and poor compliance with treatment. These dual problems lead to longer and more frequent readmissions to hospital. They also indicated the problems of abusing drugs such as marijuana, although these are not as freely accessed as the locally produced alcohol (Tella, Arekie and Tej) and khat.

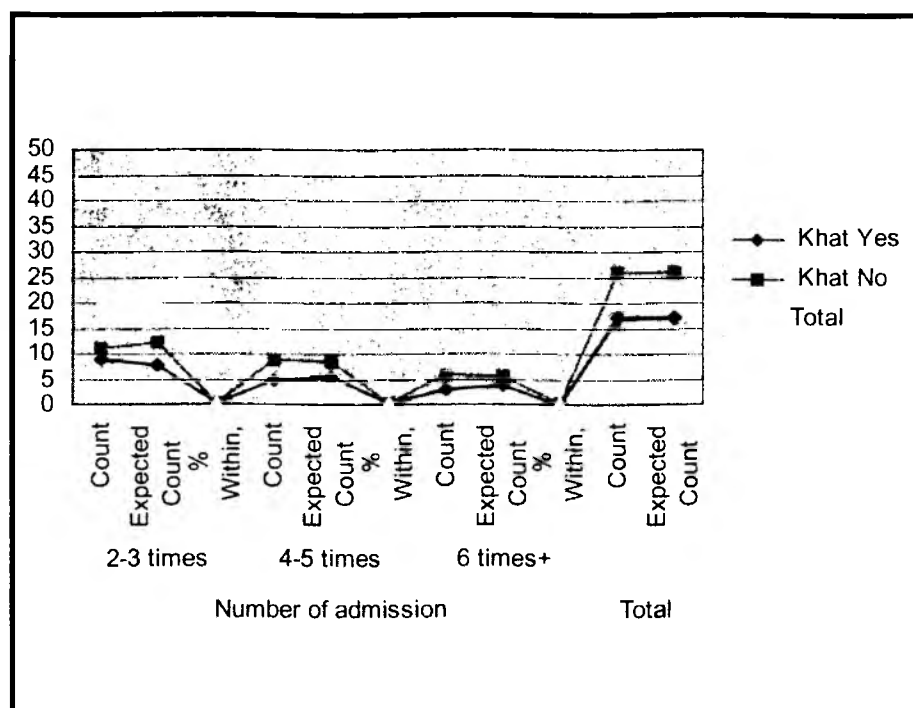
For example a mother participant (age 49) said:

"He was repeatedly admitted to this hospital; his mental illness always relapses soon after discharged from the hospital, because he chews "khat", drinks alcohol (Tella, Arekie and Tej) and smokes marijuana excessively. He improves when he is admitted to the hospital, but the problem is, he continues chewing khat and drinking alcohol. No one can control and prevent him from using these substances in the family, as he is the eldest son."

Poor community awareness

The participants further described that poor community awareness about the danger of substance abuse by mentally ill people. Family neglect, the maltreatment of people with schizophrenia and weak interventions of the state were seen as one of the contributing factors to the problems of substance abuse and readmissions. The focus group participants (10 out of 14) felt that many communities provide alcohol, cigarettes, khat and even sometimes marijuana in some settings, to mentally ill people. Instead of helping the affected and afflicted individuals, society provokes them into further relapse and complications of the illness. The participants stressed that they have big problems due to youth groups in the neighbourhood who provide these dangerous substances to the patients.

Figure2. Number of admissions and Khat abuse (page13)



The graph shows that the number of khat non-abusers was slightly greater than the number of khat abusing schizophrenic patients. The number of khat abusers in the group decreased as the number of readmissions increased. Similarly the number of khat non-abusers in the groups also decreased as the number of readmissions increased.

One participant stated:

"Some young community members in the neighborhood even invite the patients to chew khat, smoke hashish (Marijuana) and drink alcohol, then use them for their own purposes or to carry out anti-social activities, such as to steal/loot clothing, money, house property and the like, knowing that the patients are not responsible for their wrong action or criminal acts."

Khat chewing is like eating "injera"

Most people believe that the use of khat is harmless to health. They rather consider khat as having a beneficial effect as a substitute for food. They were chewing khat everyday from child hood. The participants suggested that people didn't understand the effect of khat well. The same is true for mentally ill people. They are the product of this effect. And at this time, it is very difficult to prevent them from abusing khat. This has worried many of the FGD participants, because it is a big problem for them. One participant stated:

"In Ethiopia, chewing khat is considered as eating 'injera'"

(traditional food). Therefore, considering this situation, small-scale merchants engaged in the business of khat and alcohol provide it freely to attract those mentally ill patients for the first time and then after, they would be their regular purchasers."

Free availability of substances

The free availability of substances influence patients to increase their consumption on a daily basis. Almost all non-hospitalized people with schizophrenia roam around begging for alcohol, and khat as well as for money in order to buy khat, alcohol, cigarettes or marijuana. These have caused them to be involved in all sorts of antisocial and criminal acts. A 50 year old mother, who is caring for her elder son participated in FGD-I shared the following experiences *"... Since my son had began to abuse khat and alcohol, his condition was getting worse. He was admitted to this hospital several times, but never gets treated properly, because he escaped from hospital after a few days of his admission and continues to abuse those substances day and night. He didn't get any improvement for the last seven*

years...he always prefer to be with those substance abusing youth groups and doesn't want to stay at home."

The focus group participants (8 out of 14) believed that alcohol, drugs and khat are the causes for their relative's mental illness, because their relatives were mentally healthy before they joined those substance abusing peer groups. Most youths don't have jobs; they spent most of their time chewing khat and drinking alcohol. Their mental health condition are gradually deteriorating as they get addicted to it and eventually they develop psychotic symptoms. As the result of substance abuse they end up being admitted to this hospital, according to group discussions.

Khat chewing is taken as part of culture

In some parts of the region most members of the population chew khat on a daily basis, because khat chewing is considered as part of culture. A good friend is offered a nice and fleshy part of khat (which is more expensive) to show him respect. For one living around the khat growing area is normal to chew khat. It would be strange to find some one who does not chew khat. There is no protection of khat even for children and mentally ill people. Khat chewing is also taken as a means of communicating with God. Some communities believe that they can cure mental illness and others health problems by praying and communicating with God through chewing khat. One participant explained that he spent more than 8000 local currency (equivalent to R6500) to buy khat to "cure" his mentally ill wife of witchcraft, but no improvement was observed, rather her condition was getting worse. Thus it is very difficult to penetrate this culture to prevent the mentally ill patient from chewing khat. Others also questioned that how a patient could be prevented from using khat while the whole families is chewing khat. They also question that why some doctors were chewing khat if khat is harmful? Why some of the people did not get mental illness as they were chewing khat for their whole life? A participant who is caring for his 45 years old wife, shared interesting experiences by saying that: *"Khat chewing in my place is taken as culture. Leave alone the mentally ill people; even a seven-year-old child chews khat. There is a moral crisis among the youth. The existing situation obviously leads the youth to madness. Surprisingly enough, these days*

unemployment and the number of street children are increasing. They do not have anything to do except chewing khat and drink alcohol. It is the government's responsibilities to protect them and find a solution."

Problems encountered due to the sellers of khat and alcohol

A participant, who is caring for her mentally ill brother, explained that, because of the khat and alcohol sellers, they encountered great problems. She illustrated this by saying:

"My brother did not have the habit of chewing khat or drinking alcohol, and he did not have a relapse for a long time before he started chewing khat. A lady who sells khat encouraged him to chew khat by giving it to him for free the first time. After that he gradually increased his consumption of khat and he likes to be with her all the time. He is out of our control and always demand money for khat. He refuses to take his medication and chews the already used and left-over khat day and night. The lady abuses his labor for khat. After he has consumed it excessively, he becomes restless, insulting, and aggressive towards people, provoking others to fight with him. Due to this khat he has frequent relapses and readmissions. Currently his condition is getting worse."

The participants also indicated that those who did not have the habit of chewing khat or drinking alcohol and were under remission or stable condition with treatment the moment they meet those khat sellers they start chewing khat. The khat sellers people encourage the mentally ill patients to chew khat or drink alcohol for their selfish interest. Once they started abusing those substances they never stop, and continue to consume excessively and get intoxicated. Then after they become restless, sleepless, and show aggressive and violent behavior.

Participants in this study placed the blame on the government. The government didn't give attention to the huge social problems. Instead of banning such dangerous substances the government ignored it.

Reasons for abusing substances

People with schizophrenia abuse substances to reduce the unpleasant effects of the anti-psychotic drugs and to suppress their hunger. Focus group participants agreed that: the side effects

of the drug are painful for them; it makes them drowsy, inactive and unhappy looking. This had shown them to be easily identified by others and labeled as a mad person, so that they prefer to use khat or/and alcohol to suppress the side effect. They also explained that khat helps them to suppress hunger, because the anti-psychotic drugs increased their appetite and at the same time they don't have enough food.

Discussion

Substance abuse

The survey results revealed that the reported number of people with schizophrenia who abuse substances are fewer than those who are not abusers. This is contrary to the findings of the focus group discussions. Twelve (12) out of fourteen (14) focus group participants agreed that their people with schizophrenia abuse substances and that it is the contributing factor to frequent re-hospitalizations. They reported that alcohol and khat abuse was the biggest obstacles in providing care for their mentally ill relatives. It was very difficult to prevent the patients from abusing those substances. They became aggressive and violent towards them, if they are prevented from using those substances. Vogel and Huguelet (1997:244-253) indicated that there is an association between psychotic illnesses and the abuse of drugs or alcohol, leading to frequent re-hospitalizations. The findings from the literature review have indicated that the rate of drug or alcohol abuse is higher among those chronic patients with schizophrenia. People with schizophrenia appear to be particularly susceptible to the negative effects of substance abuse. This includes psychiatric and social complications with anti-social behavior, such as violence.

Alcohol abuse

The majority of women in the poorer parts of towns/villages commonly brew their own alcoholic beverages for commercial purposes. Alcohol production is a livelihood for them. Most people with schizophrenia therefore have access to these very cheap locally produced alcoholic beverages. They can also get it free. It is not illegal to provide alcohol and drugs or khat to mentally ill people. Under normal circumstances people use alcohol and khat for different purposes, such as for socialization, entertainment, or to relieve boredom.

The survey result revealed that 25.58% (N=11) of the respondents were abusing alcohol as stated by the patients themselves. This appears to be fewer, compared to the findings of the focus group interviews. The FGD participants have stated that all people with schizophrenia abuse alcohol and khat. The result of this study is supported by the findings of Haywood, Kravitz, Grossman, Cavanaugh, Davis, and Lewis (1995:856-861) that people with schizophrenic patients abuse substances. A review of the literature showed that there is a strong relationship between substance abuse and medication non-compliance (ibid). This reaffirms that substance abuse increases the rate of frequent re-hospitalizations. It is possible that the present survey findings show fewer alcohol abusers than non abusers, due to denial or impaired answering of the question, however, the possible inverse relationship noted between confessed alcohol abuse and number of readmissions, warrants further study.

Khat

Khat is a commercial crop in Ethiopia. The government earns a high income in tax from those selling khat as reported by themselves. It mostly grows on the highlands and in medium climatic conditions. Most of the population of the country chews the green fleshy part of the leaves of the plant for its psycho-stimulant effect. Khat consumption is part of the culture in some parts of the country. The survey result revealed that 41.86% (N= 18 of 43) of people with schizophrenia said that they abuse khat, however, substance abusers are renowned for their denial that their abuse of certain substances puts them at a greater risk. In contrast, the focus group participants indicated that all their mentally ill relatives consume khat excessively. Furthermore, the FGD discussants stated that after the patients have consumed a lot of khat, they become restless, irritable, unable to sleep, aggressive or violent towards their family members. They also refuse to take their medication. This is then followed by a complete relapse of the illness and re-hospitalization. After they are discharged from the hospital, they go back into the same community. Problems continue to recur.

Khat induced psychotic cases were reported from England and Amanuel Psychiatric Hospital, Ethiopia (Griffith, et

al, 1997:281-284 and Alem, et al, 1999:84-90). This may also strengthen the present findings from the FGD that khat abuse is associated with re-hospitalizations.

Recommendations

In this study, the findings of the survey may be less reliable possibly due to the mental status of patients and/or denial of the problem. However, the findings from the qualitative focus group study have shown that khat and alcohol abuse are the contributing factors for the rates of readmissions of people with schizophrenia into the Amanuel Psychiatric Hospital, according to those participants. Several issues need to be addressed to manage the problems of substance abuse and improve the role of families, communities and health-care providers in the management of those mentally ill sufferers. The results of this research may be used to design and promote psychiatric care and the recognition of the importance of planning with individual patients and their social networks, in the following way:

- Providing psycho-education and strengthening the capacities of the care-taking families to cope with the burden of care.
- Developing a psychosocial rehabilitation program.
- Designing an appropriate program that is aimed at increasing community awareness with regards to mental illness; the dangerous effects of substance abuse on mentally ill people; changing the negative attitudes of the community as well as their participation in assisting mentally ill patients.
- Providing legal protection for mentally ill sufferers, to prevent people from selling dangerous substances to them as well as refraining from abusing or harassing mentally ill people.
- Research using a larger sample, is recommended to establish and clarify trends.

Conclusion

In conclusion, the findings of this study suggest that the abuse of alcohol and khat is one of the contributing factors to the rate of re-hospitalizations of people with schizophrenia at the Amanuel

Psychiatric Hospital. It is indicated that such substance abuse makes it difficult for the families to care for those sufferers. Abusing khat and alcohol causes the patients to be aggressive, irritable, sleepless, restless, and unco-operative with treatment requirements. Unless the government takes serious measures, it is beyond the capacity of the family to prevent their mentally ill relatives from abusing alcohol and khat. These potentially dangerous substances are easily accessible to most patients. Some of the community members are also contributing to the problem by providing those substances to the mentally ill patients.

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