



## A Focus Group Study: Exploring Attitude and Beliefs of Families and Relatives of Patients with Mental Disorders on Mental Illness, Traditional Healing and Modern Psychiatric Treatment

Dr. Ehab Ali Sorketti\*

Consultant Psychiatrist & Post-Doctoral Mental Health Researcher, National Mental Health Programme, Ministry Of Health – Khartoum – Sudan

### Abstract

The family holds a central position in the life of the patients with mental disorders and on the decision where to seek help. They make a tremendous contribution to the therapeutic process. We aimed to explore the experience of the families and relatives of the people with mental illness regarding mental illness, traditional healing and modern psychiatric treatment. So we conducted Focus groups discussions among families and relatives who accompany patients undergoing treatment in the traditional healer's centres in Central Sudan. The families and relatives defined mental illness according to the perceived underlying cause. They recognize the mental illness by the changes that occur to the person character and behaviour, illogical thinking, talkativeness and aggression. They strongly believe in the supernatural causes such as: Jinn possession, evil eye, black magic and evil-doing as well as other psycho-social factors. They also have strong belief in the effectiveness of traditional healing for treating mental illness. They are doubtful about the effectiveness of modern psychiatric treatment. Cultural beliefs and social factors of patient family and close relatives play important role in determining the choices for help-seeking behaviour in people with mental disorders. These have important implication on mental health service use by people with mental disorders

**Keywords:** Traditional healing; Psychiatric services; Mental illness; Family; Patients; Mental disorders; Focus group discussion; Sudan

### Introduction

The use of traditional healers is common worldwide, especially in developing countries. Few studies, though, have focused on the use of traditional healers by people with mental disorders. This study made an attempt to understand the practice of traditional healers in relation to mental health and psychiatric services in Sudan.

### Global burden of mental disorders and the treatment gap

The World Health Organization (WHO) in the Global Burden of Disease study conducted in 2000 and reported in the World Health Report 2001. As many as 450 million people worldwide are estimated to be suffering at any given time from some kind of mental or brain disorder. Mental disorders affects hundreds of millions of people; if left untreated, they create an enormous toll of suffering, disability and economic loss. Some 80% of persons with mental illnesses live in low- and middle-income countries. Access to treatments for mental disorders is inadequate in most of these countries. The percentage [1-7] of individuals who have severe disorders such as schizophrenia, bipolar disorder, and major depressive disorder, but who remain untreated, is estimated to be as high as 85% in low- and middle-income countries. A multicentre survey by WHO showed that 76-85% of people with serious mental health problems had received no treatment in the previous 12 months and that for those who did receive treatment this was most often inadequate.

### The role and the importance of traditional healing in developing countries

The importance of traditional healing methods in developing countries cannot be underestimated and it is generally perceived as a part of the prevailing religion and belief system. The literature has highlighted that traditional healers are often seen as the primary agents for psychosocial problems in developing countries, and estimates of their share of services range as high as 45-60%. The WHO estimated that 80% of populations living in rural areas in developing countries

depend on traditional medicine for their health needs. This could be because of the easy accessibility of traditional services and lack of convenient health services. And identified the role of a key player (traditional healers) in the mental health care system in African countries, where the biomedical treatment gap is notably large. They suggested that traditional healers may play a role in the formal mental health care system alongside biomedical providers. They also argued that the preference for traditional healers care is not simply the result of lack of availability of biomedical care.

### Classification and characterization of traditional healers in Sudan

In Sudan traditional healers could be classified as: religiously oriented healers, who make use of religious techniques; and non-religious healers who utilize magico-religious practices. The religious healers usually grow up within a professional circle and from early childhood learn the traditional techniques from the master. There is no system of prescribed courses of learning. The future healer gains the required experience through active participation in therapy with the any formal teaching is limited to the learning of the Holy Quran and the saying and traditions of the Holy Prophet (peace be upon him) and the formulations and maxims of the sheikhs. By listening to the

\*Corresponding author: Dr. Ehab Ali Sorketti, Consultant Psychiatrist & Post-Doctoral Mental Health Researcher, National Mental Health Programme, Ministry Of Health – Khartoum – Sudan, E-mail: Ehab Ali Sorketti@gmail.com

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elders, the disciples become familiar with miraculous cures, which are attributed to the divine power of the dead sheikhs. Generally, traditional healers in Sudan can be divided into two distinct groups: religious healers influenced by Islamic and Arab culture, such as traditional Quranic healers and Sufi healers; nonreligious healers influenced by African culture, such as practitioners whose systems are based on zar, talasim or kogour. The religious healers are further subdivided into two groups: the first uses only Quranic treatment, derived from certain verses. This involves reading and listening to the Quran with the active participation of the patient. The success of this treatment is said to depend on the reliability of the healer and the degree of his belief, in addition to the conviction of the patient and his belief in the Quran as a source of treatment. The second group uses a combination of both Quran and *talasim* (non-religious methods). The types of *talasim* used are mainly squares filled with symbolic letters which have a hidden spiritual dimension conceived only by the sheikhs as pious, holy men. They contain the 99 attributes (names) of God and some other inherited words from ancient divine books. Healers in this subgroup are influential decision-makers at the individual, family and community level. They are respected not only by their followers, but also by government officials and politicians.

### The concept of kogour and zar

Elsorayi stated that *kogour* is a typical African practice found only in the south of Sudan where African culture dominates. It is used by healers who claim to have supernatural powers; it deals with the belief that souls affect the body. Such healers use their power to cure disease and to solve other problems, such as the control of rain. Stated that *zar* came to Sudan from Ethiopia and is based on the assumption that supernatural agents or spirits possess a person and may cause him or her some physical and psychological disorders. The *zar* concept of possession is based on the idea that the spirit makes certain demands that should be fulfilled by the patient or relatives; otherwise this spirit may cause trouble for all of them. *Zar* is the dominance of the evil soul over the human being with the intention of hurting the person. *Zar* is common among Muslims as well as Christians. The sheikhs of *zar* are usually women. They are responsible for diagnosing and identifying the spirits and their demands and preparing and directing what are called *zar* parties. These parties feature very loud music, vigorous dance and songs with special rhythms. They serve both diagnostic and therapeutic objectives. Most of the patients and their families in Sudan depend mainly on traditional healers and their healing methods as the most accessible and less demanding in term of financial obligations. Mentioned that the holistic approach of traditional healing might lead to long-term stability of health; this might explain why in many cases patients would prefer this approach to techniques are supposed to that result only in short-term relief of symptoms. This therefore is a good reason to study mentally ill patients within the traditional healer system to understand the reasons and factors that bring this long term stability in health. In addition to harmful practices quality control is not assured within traditional approaches to healing because there is lack of regulation. However, traditional medicine maintains its popularity for historical and cultural reasons. Reported that, until recently in Sudan, interest in and concern about mental health were mainly left to traditional healers, and such healers continue to see the majority of mental patients. Traditional healers perform many valuable services and social benefits to the community, nevertheless traditional healing is not formally institutionalized, as there is no government entity with responsibility for to guiding or supervising the delivery of traditional healing services. Therefore, getting accurate estimates of the figures or numbers of traditional healers, for instance, is extremely difficult.

### Traditional healers' beliefs regarding causes of the mental illness

Traditional religious healers commonly believe that there are three causes of disease: the evil eye, evil-doing (*amal*) and demonic or jinn possession. The evil eye is a concrete representation of the omnipotent evil-producing fantasies of people who envy the success, health and prosperity of others. Such envious feelings are held responsible for any deterioration, especially if sudden, in the envied person's well-being. The evil eye as a causative factor in the pathogenesis of disease is firmly established in Muslim countries. Basically, belief in the malignant influence conveyed by it seems to be similar in various religions' except that of ancient Egypt. In evil-doing (*amal*), disease is caused by the presence of certain objects or substances in the body. The underlying magical part of this concept is noticeable here. This concept has no roots in Islamic philosophy. Even those religious healers who believe in evil machination do not resort to shamanistic practice against it, but employ religious techniques instead. Even some of those traditional healers whose practices would be overall classified as 'religious' incorporate some witchcraft in their work. Possession by spirits or jinn involves the belief that the individual concerned has been mastered by these agents and that the disorder is produced by them possibly for retribution for making them angry. In magic or sorcery, on the other hand, it is the evil intentions of other people that involve the spirits in order to harm a particular person in the way they specify.

### Interventions and procedures for treating people with mental illness

Practitioners of traditional medicine treat their patients using several approaches. There are many different types of interventions and procedures for treating people with mental illness in the THCs in Sudan; the most well known and most common procedure is the restriction of food intake. Patients are not allowed any meat or carbohydrate. Meat proteins and fat are prohibited because traditional healers believe that they contain 'soul' (*Rouh*) and that stopping soul from entering the body can weaken the soul of the evil or the devil inside the mentally ill person. Patients are also prevented from taking high-calorie food because the traditional healers believe that this will deprive the evil spirit of energy, thus enabling it to be overpowered. Instead, patients are given a small portion of porridge, specially made in the THC, which the healers believe contains a blessing and a cure for the mental illness. Traditional healers also use chains to restrict the movement and agitation of the mentally ill. This procedure was practised on almost all patients, regardless of their diagnosis, as a precaution to control the patients physically and prevent them from escaping or running away from the centre in the initial days or weeks of treatment. Some of the patients, especially those who were psychotic and agitated, were also beaten. Recitation of the Holy Book (Quran) and the words of God to the patients (*Rogya*) were used as a method of treatment for all patients in the THCs. *Bakhara* and *Mehaya* were also used for almost all patients admitted. *Bakhara* involves writing holy verses on special papers or tree leaves; the patient or family then burn these and the resultant smoke is passed round the patient's body to bring about a cure. *Mehaya* is purification using holy water and specially designed boards, papers or tree leaves. The healer writes on these certain symbols, signs and healing invocations that are traditionally known for their divine power. The writing is then washed off, the water is collected and the patient either drinks it or washes the body with it.

### Traditional healer centres in Sudan

In Sudan there are many traditional healers' centres. They can be

classified by the special traditional healing design or ways (*Tarriga*) or concepts that they are based on: El-Tigania, El-Shazalliya, El-Samania, El-Gaderia, El-Burhanian, etc. The traditional religious healers in Sudan are known by several names: the *feki*, the *fageer*, the *waly*, the *shareif*, the *sayed* and the *sheikh*. The terms denote holiness, or socio-religious superiority. The followers of each traditional healer are called the *Murideen*. Each *Tarriga*, or way, has been founded by a famous Sheikh. Each *Tarriga* has its own special spiritual methods (*Zikir*). The degree of successful influence of the sheikh depends on religious morals and knowledge, piety (*wara*), asceticism (*Zuhd*), working miracles (*Karamat*) and spiritual power. The most famous traditional healers' centers in Sudan include Taiba Shiekh Abdelbagi, Taiaba Shiekh Almuhashfi, Tiabba Shiekh Alpraai (Al-Zareeba), Umdwanban, Wad Al-fadni in Khartoum north, Kadabass by the river Nile, Saimdeema in Omderman, sheik Al-kabashi in Khartoum north, and a few centres.

### The function of the traditional healers centres in Sudan

The traditional healer centres also function as educational institutions. The biggest in these terms have between 1,000 and 3,000 students. The students reside in the centres for three to five years (or more), but do not have to pay any special fees; they learn reading and writing of the Holy Quran, *Tilawa* and *Tajweid*, and other religious and spiritual teachings. The traditional healer centres provide many social, consultation and spiritual services to the local communities as well as for the visitors who come to these centres from different parts of the country. Their financing is through the donations and contributions (*Zowara*) from their followers (the *Murideen*) and the regular visitors. These contributions are not only in the form of money but also food items and other materials, especially during the yearly celebration of the death of the sheikh's grandfather, the founder of that centre. This kind of celebration is called *Holliya* (which means an annual special ceremony) where special food is served (*Fatta*) and *Zikir* is practised in groups for the whole night, until morning. Many people come from different parts of the country, and sometimes even foreigners, to attend this ceremony.

### The role and function of traditional healers in Sudan

Traditional healers play a crucial role as first line of defence against unexplained psychological symptoms that people fail to place within the domain of medicine. A large number of patients rotate between traditional healers and biomedical doctors including psychiatrists. The situation is not an exception in Sudan where majority of the Sudanese populations utilize both traditional and western systems of mental health care. The majority of service users hold traditional explanatory models of illness and used dual systems of care, with shifting between treatment modalities reportedly causing problems with treatment adherence. People can go to healer sheikhs for consultation in each and every aspect of their life. Stated that traditional healers can also act as family counsellors in critical life events such as building a house, marriage or naming a child, and may have both judicial and religious functions. They often act as an agent between the physical and spiritual worlds. People usually go to traditional healers to receive what is called *Fatiha* (special prayers performed by the sheikh) to bless them in all activities in their lives, and they give a huge contribution to these centres, what they call *Zowara*. The poor also contribute with small amounts or they may take their sheep and animals or their agricultural products as a contribution to these centres. Sometimes they may sell their sheep and donate the money as *Zowara*. It is not a requirement of patients, but they feel ashamed if they come empty-handed to the sheikh whether he is alive or dead. It is believed that the amount of blessing coming to people from the visit to the sheikh depends on

the amount of sacrifices and Qurban that people spend. It has been reported that some couples who have no children visit the sheikhs to ask for a child; or a couple who have only girls might ask him for a baby boy. Usually the sheikh prays for them. Sometimes they may go and visit the dead sheikh and move around the grave, which is under a tall building called the Quba. They may collect holy sand from the dead sheikh's grave called Baraka. It has been stated by stated that miraculous cures are attributed to the divine powers of the dead sheikh. This is why people spread the sand all over the body or they may drink it after dispersing it in water; sometimes they hang it on the body or put it in a special place in their house to bless that house.

### Common beliefs regarding traditional healing and healers

Both men and women with somatic, physical and mental complaints consult traditional healers. People believe that disobeying the sheikh brings damnation on the person and family. They believe in the sheikh's blessings and regard him as a mediator between the follower as a slave and the Lord. They also believe that the sheikh, whether dead or alive, is capable of rescuing them and pleading on their behalf for help and release from illness. Therefore, the sheikhs in the people's eyes are true representatives of spiritual power.

### Traditional healer practices regarding people with mental disorders in Sudan

Patients with mental disorders are usually brought by their relatives. Patient who are severely disturbed and agitated are often put in an isolated dark room especially built for the purpose. These patients are sometimes chained to a wall, and are not allowed to move or walk in that room, there is usually no toilet facility. They are prohibited to come out of that room for at least 40 days. Some patients have succeeded in taking off that chain and escaped from the centre. Usually these rooms are in the far corners of traditional healers' centres. The patients are deprived of all types of food except a special porridge made in the centre. Patient with a severe mental disorder generally stay in the centre from 40 days to 6 months or more, depending on the symptoms and condition. Usually, in some of these traditional healers' centres the patient's psychiatric medication, if any, would be stopped by the centre's healers so as not to interfere with the traditional healing. Three to five mentally ill patients are usually brought to famous centres for healing every day. These patients do not come from the local community, but will be brought from different parts of Sudan. They are usually accompanied by their family members. Some doctors treating mentally ill patients claim that most patients kept in centres are deprived of food; the patients are consequently later presented to doctors often with anaemia thin and emaciated, with a lot of physical complications in addition to their psychiatric symptoms. The late Professor El Tigani El Mahi stressed that our attitudes towards religious healers should aim to encourage good quality of practice while trying to end harmful or faulty methods. However, no attention has been paid to mentally ill patients in terms of assessing their conditions and reviewing the system of diagnosis and management in traditional healer centres.

It was reported by the WHO that: Traditional medicine is so successful in Sudan that is extensively used in the control of neuroses and Alcoholism, and as such possesses a potential for research on the treatment and rehabilitation of neurotic reactions, alcoholism and drug dependency. Traditional medicines present several valuable solutions to the management of culturally linked diseases and other health problems in Sudan. The reason for this success is that it is an integral part of the culture and they have deep confidence in it. The methods and techniques employed are guarded secrets by the traditional healers. The WHO & Federal Ministry of Health reported that: In Sudan the

traditional healing methods are shaped by the religious, spiritual and cultural factors of different ethnic population groups. The practice is common in urban as well as rural populations. Traditional healers may require long stay of patients and this may prevent early detection of disease and early medical intervention by modern psychiatry. Although traditional healing is highly regarded and popular in Sudan, apart from these WHO reports no studies have been conducted on the type of traditional healing provided and no studies have been conducted among people with mental disorders receiving management in traditional healer centres in Sudan. It is therefore important to know what type of services provided at these centres, to know the patients' characteristics and whether and how these people benefit when they use these services. No previous studies have investigated the conditions and the situation of people with mental disorders who receive treatment in the traditional healer centres in Sudan. Noted: It is worth mentioning that there are no available systematic studies concerning the general traditional healing practitioners of Sudan, particularly the religious and spiritual healers, and they are not officially acknowledged. They practice their traditional ways of healing without license, registration or training. Against this background it is vital for us to investigate the practices of traditional healers in relation to mental health in Sudan, because high percentages or most of the mentally ill patients in Sudan consult traditional healers before making contact with the psychiatric services. People with mental illness may go to mental health and psychiatric services very late, or they may never go. This may delay psychiatric treatment, which probably leads to a poor outcome of the mental illness. People with mental illness usually are brought involuntarily to traditional healers' centres, and they are left there for months in a miserable condition. Many patients are isolated and secluded in dark rooms, and are chained for months; sometimes, they are beaten and are even prevented from taking food and medicine.

## Methodology

### Aims and study design

We chose a qualitative methodological approach (Focus group discussion (FGD) among families and relatives of patients with mental disorders) to achieve the aims of the study which includes: To assess how the Sudanese families of people with mental disorders define and recognize mental illness and psychiatric disorders. To study the help-seeking behaviour of psychiatric patients and their families and relatives in receiving treatment in the traditional healers centres in Sudan. To get detailed understanding about the traditional healing approaches for treating patients with mental disorders. To determine the knowledge, beliefs, attitudes and practice of the families and relatives of patients with mental disorders towards mental illness, traditional healing and modern psychiatric treatment. The Authors hypothesized that: People in Sudan define and classify mental illness according to it is supernatural causation and the families and relatives play a major role and influence the help seeking behaviour in patients with mental illness in Sudan.

### Study area

Thirty traditional healer centres in and around the Sudanese capital, Khartoum, and the adjacent states (Geziera, White Nile, and Blue Nile States) were each assigned a number (1–30) and the researchers asked a third party to randomly choose 10 of these numbers. This resulted in 10 randomly selected traditional healer centres in central Sudan in and around Khartoum: Khartoum State, Geziera State, White Nile State and Blue Nile State.

It is worth mentioning that the various healers at the selected centres seemed to be a largely homogeneous group, in terms of

culture, socio-economic characteristics and methods of healing. The only inclusion criteria for the traditional healer centres were that they had to have facilities for admitting mentally ill patients. Each of these centres was given the name of the elder traditional healer who was its founder.

### The traditional healer centres (*Massed*s)

#### a. *Massed Umm Dwanban*

This centre is located in Khartoum North, 40 km from central Khartoum. It is one of the biggest traditional healer centres in Sudan. The current responsible sheikh learned this profession a long time ago from his grandfather Al sheikh Wad Badur, one of the famous khalifas in Sudan. The village where there traditional healer centre is located has a population of 30,000; most of the people in the village are educated and very hospitable to visitors. In Umm Dwanban village, there are two basic primary schools and secondary schools both for males and for females. There is also an academic Quran college, and a general hospital built in 1992 with many specialties including psychiatric referral clinic. The hospital receives 15–20 patients every day. The floods few years before the study had destroyed most of the village and the hospital buildings which are now under renovation.

#### b. *Massed Al Sheikh Abou Groun*

This village is situated in Khartoum North, about 90 km away from central Khartoum and has a population of 2,5000. Farming is the predominant local occupation. It is one of the biggest traditional healer centres in Sudan. The current Sheikh learned his job from his father, but is also a graduate of the Faculty of Law, University of Khartoum and has his own website (<http://abugroun.com/index.htm>). The centre accommodates the mentally ill patients in special rooms.

#### c. *Massed Sheikh Alyagout*

This centre is situated in Jabal Awlya City (which means the 'mountain of the holy people'), which is 40 km south of Khartoum. This area has a population of 40,000. Again, farming is the predominant occupation, although many people commute to Khartoum to work. Electricity and water supplies are available in the area, and a medical health centre, some primary schools, and a secondary school provide services within the area. The *massed* and the *khalwa* (Quran School) are crowded and busy with visitors; the average number of visitors is 50 people for different purposes. There are rooms for accommodating the mentally ill.

#### d. *Massed Tayba Sheikh Abdelbagi*

This centre is located in Tabat village 200 km east of Khartoum. The founder of this *massed* was Sheikh Al-Samani Abdl Mahmoud, the founder of Tarriga Al-Samania in Sudan. People from all over Sudan come to seek cures, and to obtain his blessing by touching his tomb. His successor now is Sheikh Al-Gieli, a graduate of the Faculty of Art in University of Khartoum; he learned the job of healing from his father. Visitors come from different parts of Sudan as well as from outside Sudan.

#### e. *Massed Elshiekieneba*

This centre is 400 km from Khartoum, in Al Geziera State. It is a famous *massed* which dates back 400 years. The locality is a rural area with a population of around 15,000 many living in mud houses. They depend on sheep for food (milk and meat). The water supply is largely from wells that are often far away from people's houses. Previously there was no electricity in the area except for the *massed*. The sheikh meets visitor sat the *massed* and thousands of children learn the Quran and

spiritual teaching in the Khalwa. The *massed* also encompasses a dome with the tomb of the sheikh, the father of present sheikh. The sheikh is very cooperative with researchers and psychologists, who have been there many times.

#### **f. Massed Shiekh AlKabashi**

It is located in Khartoum North, 20 km from central Khartoum, and was founded by sheikh AlKabashi. He was very famous for healing scorpion and snake bites; the current khalifa is a friendly and cooperative person. The local village is largely populated by the children and grandchildren of that sheikh. The centre has rooms (with facilities for chaining) to accommodate mentally ill patients. People come from different parts of Sudan to collect the sand of the grave of that sheikh (the Baraka) to hang it in front of their houses as a charm against animal poisons.

#### **g. Massed Al-SaimDeama**

This centre is situated in Ombada in Omdurman city. The grandfather of the current sheikh fasted every day, it is claimed. It is a very big centre with many daily visitors and is situated in the heart of the city. The centre has rooms to accommodate the mentally ill.

#### **h. Massed Wad Husona**

It is located in Khartoum North. One of the oldest villages in Khartoum state, in an area with a rich religious heritage and contains the tomb of Sheikh Hassan Husona. It is one of the oldest areas in eastern Nile away from the capital, Khartoum, a distance of 84 km<sup>2</sup>. It accommodates 75,000 people. It contains a famous *massed* which dates back 300 years. The *massed* have facilities to accommodate people with mental disorders.

#### **i. Massed Al Nekhaira**

This centre is 200 km from Khartoum in Geziera state. The *massed* have khalwa and facilities to accommodate people with mental illness. The resident of this village are famous, that, they have a major role in repairing the social fabric of solving social problems and of reconciliation between members of the community and removed the obstacles and all the manifestations of social solidarity. The sheikh is famous for using alternative medicine, most therapists for many incurable diseases such as body and eye diseases and psychiatric disorders.

#### **j. Massed Abuharaaz**

This centre is 300 km from Khartoum, in Al Geziera State. Abuharaz is located at the eastern side of the Blue Nile. The near by cities are Hantooob, Wad Madani and Rufa'a. Most of its populations are farmers and have tied and strong social relations. This *massed* is famous. The *massed* have facilities to accommodate people with mental illness.

### **Ethical approval**

Ethical approval was obtained from the research ethical committee in the Directorate of research in the Federal Ministry of Health in Sudan before we approach the traditional mental health services users in Central Sudan. Ethical clearance Certificate was obtained before the start of the data collection from the research ethical committee in the Federal Ministry of Health Sudan.

### **Setting, sample and procedure of the focus group discussions**

Participants were the relatives of patients with mental illness undergoing treatment in the traditional healer centres in central Sudan. They were invited to join discussion groups carried out in the centres.

We conducted the focus groups of discussions with the relatives of patients with mental illness in the traditional healer centre because the patients were usually brought involuntarily by their families to the centres for treatment. In addition, resorting to traditional healers for help was usually a family decision in which the patient had no say.

Participants shared their opinions and experiences regarding mental illness, the signs and symptoms of mental illness, the reasons for the mental illness, the precipitating factors for the illness, the treatment available, the role of traditional healers and the role of modern psychiatric treatment for treating mental illness. The only inclusion criterion was that participants had to be a close relative accompanying the patient under treatment to the centre at the time of study. Participants were advised that they could leave the discussion at any time, although none did so. The focus groups were led by a moderator, whose primary role was to introduce the questions and to ensure that every member of the group was heard and that the participants' conversation was focused on the main purposes of the study. The moderator was present to guide the focus group, but any interference in the discussion was kept to a minimum. The length of time of each session was about one hour, and the discussion was contemporaneously recorded as written notes. It could not be tape-recorded because of the policies of the centres. Facial expressions and non-verbal comments were also noted. Participants were probed about issues raised by previous groups in addition to the standard interview schedule structuring each of the discussions. We arranged two focus group discussions in each traditional healer centre, one for males and the other one for females; to respect local culture and the traditions (in Arab culture men and women do not mix together in social gatherings). In any case, if we included both males and females in one focus group the men would talk more and the women much less, and would be shy of asserting their own ideas and opinions. The 10 female focus groups were moderated by a qualified and trained female clinical psychologist. We conducted only two focus group of discussions per week, one for males and the other for females, to allow time for immediate thematic and content analysis before moving to the other centre to conduct another two focus groups. Triangulation was used in the study to verify the answers given by the participants. After all 20 focus group discussions, had been conducted, saturation of data themes emerged in our interpretative analysis. Five clinical research psychologists in addition to the principal investigator, all qualified and trained in qualitative research data collection and analysis moderated the 20 focus groups. Focus group members were very active during the discussions and no participant reported difficulties during the discussion. Each group followed a schedule that explored seven areas (Table1). We used these areas to explore families' concepts of, beliefs about and attitudes towards mental illness, traditional healing and modern psychiatric treatment.

### **Data management and analysis**

#### **Qualitative data management, analysis and validation**

Focus group discussion was chosen as a useful tool for exploring topics connected with group norms and the group meanings that underlie those norms. Focus groups generate alternative views on an issue and the intention is not to reach consensus. Focus group discussion does not require formal training of moderators and observers but the literature does recommend that they have good interpersonal skills. The method is particularly useful for exploring people's knowledge and experiences and can be used to examine not only what people think but how they think and why they think that way. Focus groups are a popular method for assessing health education messages and examining public understandings of illness and of health behaviours. Focus groups have

advantages for researchers in the field of health and medicine; they do not discriminate against people who cannot read or write, and they can encourage participation from people who are reluctant to be interviewed on their own, or people who feel they have nothing to say. Focus groups are well suited for eliciting people's opinions and experiences, or for searching for deeper understanding of opinions and attitudes to certain issues. The strength of focus groups is the ability to capitalize on the interactions, discussions and relationships among group participants. An advantage of using the focus group discussion to collect original data is the connection with oral traditions, which makes it preferable when participants have little or no educational background. Furthermore, focus group discussion is relatively easy to arrange, inexpensive and flexible in terms of format, types of question and desired outcomes. Contemporaneous notes were made and supplemented with field notes and observations of non-verbal communication. These transcriptions were checked, evaluated and edited by another bilingual speaker. After transcription, the principal investigator and the research team read through the transcript several times and grouped the content by themes with the help of an experienced medical anthropologist. The whole discussion was translated literally from Arabic into English after the content analysis was completed, for the purpose of publication. To enhance the data's credibility, discussions between moderators were held at the end of every focus group session. Notes about the central themes in the focus group discussions were made at the end of each. We conducted only two focus group discussions per week. Feedback was obtained from participants: drafts of the interviews were presented orally to some of the participants, who made comments. The participants agreed that the drafts represented what had transpired in the interviews. Reliability was achieved by means of consistency checks between the research investigators, who continuously discussed the content and inductive coding of the focus group discussions. The content analysis was organized manually by comparing various themes within the same focus group and between the other focus groups.

### **Manual thematic and content analysis of the focus group discussions**

Content analysis of data from focus group discussions followed steps the described. The qualitative data analysis for this study was conducted using the framework approach, familiarization, identifying a thematic framework, indexing, charting and interpretation. The emergent themes of the discussion were coded. A bilingual researcher wrote down the contemporaneous note of discussions verbatim in Arabic and then after content analysis was completed the results were translated into English. The principal investigator and the research team then read through the transcripts several times to become familiar with the data. Each transcript was read and coded by the investigators to identify emergent themes. Coding (highlighting ideas, categories or themes) of the data according to the questions discussed took place as the researchers read through the transcripts. This was done by placing (sorting) expressions, lines or paragraphs that described similar codes on the left-hand side. Common themes or patterns that emerged were then placed together and interpreted. Selected extracts of text are provided; names have been changed to preserve anonymity.

### **Results**

One hundred and sixty relatives (92 men, 68 women; age range 20–70 years) of patients with mental illness in the traditional healer centres participated in the focus group discussions (FGDs). We identified four major themes based on the thematic and content analysis. We provide below some selected responses from some of the participants in the FGD where these seem important and representative; the

maintain anonymity, the names used here are not the real names of the participants. The responses are translated but otherwise reproduced verbatim, without any attempted correction of the usual slippages made in speech.

### **Theme 1: Definition and naming of the mental illness**

The participants identified, classified and named the person with mental illness in terms of different definitions and names. For example, Majnoon means those possessed by jinn; Mamsus means those touched by jinn or Satan or evil spirits; Matouh means those who are born mentally ill; Mastul means those who ingested or abused a substance such as alcohol, hashish or other forms of cannabis; Mayoun means those affected by the evil eye; and Mashur means those affected by black magic. These definitions mentioned in the FGDs to describe the person with mental disorder were usually based on a supernatural aetiological cause of the mental illness. Below are some quotations regarding the definition and naming of the mental illness:

- One participant said we called the person with mental illness Majnoon.
- A second participant said we called the person with mental illness Mamsus.
- A third participant said we called the person with mental illness Mayoun.
- A fourth said we called the person with mental illness Matouh.
- A fifth said we called the person with mental illness Mastul.
- Another female participant said we called the person with mental illness Mas-hur.
- Another participant said we labelled him as Faka-Mino, i.e. has no logical thinking.
- Another participant expressed that he is La-agl-lah, i.e. without mind

### **Theme 2: Description, identification and the symptoms of the mental illness**

The participants in the FGDs expressed the view that the most important sign was the inability to perform the same personal family and social activity as before the patient developed the mental illness. In other words, deterioration in functioning was considered the most important symptom – for instance, if a farmer could not work on the farm, if a trader could not practice his trade, or if a student could not go to school or study. In addition, some said that talking to oneself was a sign mental illness, as was neglecting personal hygiene, walking in the streets aimlessly, or becoming violent and aggressive. Some also thought that people with mental illness have illogical thinking and are always living in their own world.

- A participant said 'the person with mental illness always wonders around in the street aimlessly and wearing dirty clothes, smiling and laughing inappropriately, taking to himself'.
- A participant said 'the person with mental illness is always not aware about what is going around him and his mind is away'.
- Another participant said 'the person with mental illness may be talking excessively and have strange thoughts and ideas, is always careless about himself and others sometimes tend to be violent and aggressive'.

### Theme 3: Origin, nature and cause of the mental illness

Some participants mentioned that jinn possession, Satan, the evil eye or spirits, magic and doing things against God's will (wrong-doings) are the most important reasons for mental illness. For example, they believed that jinn can enter the human body and disrupt body function. Some participants stressed that mental illness can be precipitated by family or social problems, or disappointment in love or marriage. All participants thought that mental illness could be precipitated by a car accident or injury to the head, or abuse of drugs such as hashish. They mentioned that mental illness can be inherited and they gave examples of families where parents or grandparents or other relatives had a mental illness that was passed on.

#### Supernatural causes

- A female participant said 'my brother who is quite okay until he got possessed by jinn, then he started to behave abnormally and talking nonsense and sometimes talking to himself, we brought him to the traditional healer to get him treated from jinn possession.'

- A Male participant said 'my sister who has been stroked by an evil eye and now her mental symptoms improved a lot after she started the traditional healer treatment. Although we have a psychiatric clinic near to us but it is not helpful in her case, how far the traditional centre is not important to us, but the most important is to get her cured.'

#### Medical causes, Substance abuse, drugs and chemicals

- A participant said 'the mental illness could be due to substance abuse such as hashish.'

- A participant said 'the mental illness could be due brain damage, head trauma and road traffic accident.'

- A participant said 'the mental illness could be due infection such as malaria, typhoid fever or meningitis; my neighbour Halima developed abnormal behaviour after she got fever.'

- A female participant indicated that mental illness may develop during pregnancy or after delivery of a baby. She said, 'My daughter developed the mental illness after the delivery of her first baby.'

#### Genetic or inherited causes

- A participant said 'the mental illness could be inherited; a baby may be born mentally retarded.'

#### Early childhood experiences and Life events

- A participant said 'a person may develop mental illness due to loss of parents and maltreatment by relatives or due to traumatic life events during childhood such as being kidnapped or sexually abused or if he witnesses excessive violence, killing or war events.'

- Another participant said 'the mental illness could be due to failure in love and marriage or relationship, loss of money or job.'

### Theme4: Management and treatment of mental illness

Some participants mentioned that traditional healing for a mental illness can be very successful and said that getting the jinn or the evil spirit out of the body can be done only through traditional healing. Devices or means frequently used were: charms (*hegab*, *waraga*, *kilab*, *hirz*, *hafez*); incantation (*azema*, *taweza*); fumigation (*bakhour*) and purification (*mehaya*). *Rogya* is reciting specific verses from the Holy Quran to the patient. Verses from the Holy Quran are written on pieces of paper and according to severity of the disease the patients burns a number of them and inhales the fumes; this is called *Bakhra*.

Purification with holy water is a universal practice called *mehaya* among certain traditional Arab communities. Alternatively, on a specially designed board (*loah*) the traditional healer writes certain symbols, signs, Quranic verses names of angels and healing invocations which are traditionally known for their divine power. The writing on the *loah* is then washed off, the liquid is collected and the patient either drinks it or washes his body with it.

#### Role of traditional healers

- A participant said that 'traditional healers play an important role in the management of the people with mental illness in Sudan in a country where there are very limited government resources and facilities for treating mental illnesses.'

- A participant added more by saying: 'Traditional healers can accommodate the people with illness until they get improved; they provide food and accommodation for the patient with mental illness. They also accommodate his family in the traditional healer's centre for many days or months or even years until the patients improve. They provide treatment and management that is acceptable to us and within our cultural and religious beliefs.'

- Another participant added more by mentioning that 'the patient in the traditional healer centre after he gets improved becomes an active member of a therapeutic community. Life in these centres is based on communal welfare. Besides having his regular doses of *Rogya*, *Bakhra* and *Mehaya* and observing all religious rites the patient participates fully in all activities and is assigned a specific job in the fields; he may draw the water from well or canal, cut the wood, cultivate the land or look after the animals.'

#### Role of modern psychiatric treatment

Some family members said visiting psychiatrists and mental health professionals for treating their people with mental illness is a waste of time and money. In general, they thought that modern psychiatric treatment is not useful and not effective, and if has any effects they are minimal and the medications usually make the person sleep a lot and they think that it poisons the body. They strongly believe that those who take modern psychiatric treatment usually they develop shakiness in their body and slurred speech and hyper-salivation (this is a reference to some common side-effects of antipsychotic medications – the extra-pyramidal symptoms). Furthermore, participants also believed that electroconvulsive therapy (ECT) could do more damage than cure.

- A participant mentioned that: 'my sister was quite well when she started to become socially withdrawn, she lose weight and have lack of interest in everything. We took her to the doctor, given medication and she was referred to psychiatrist; her condition was diagnosed as depression and was given medication and Electricity [ECT] in the hospital but her condition did not improve significantly. Then we decided to bring her to the traditional healer centre. After many sessions of traditional healer treatment her condition improved and she started to eat normally and now she can talk, smiles and mixes with people.'

### Discussion

#### Origin, nature and cause of mental illness

Many people all over the world strongly believe in the existence of supernatural forces such as jinns, magic and the evil eye. Ally & Laher in a study among Muslims in South Africa said the important role that religious beliefs may have on perceptions of mental illness cannot be ignored. Many religions, including Islam, endorse Witchcraft and spirit possession, both of which are thought to influence the behaviour of a

person so as to resemble that of a mentally ill individual. In his research explored Muslim faith healers' perceptions of mental and spiritual illness in terms of their understanding of the distinctions between the two (mental and spiritual), the aetiologies and the treatments thereof. Six Muslim healers in a Johannesburg community were interviewed and thematic content analysis was used on the data. They found that the faith healers were aware of the distinction between mental and spiritual illnesses. It was also apparent that Islam has a clear taxonomy that distinguishes illness and the causes thereof. Treatments are then advised accordingly. It had been argued that the predominant Western view of the aetiology and understanding of mental illness needs to acknowledge the various culturally inclined taxonomies of mental illness so as to better understand and aid clients.

### Defining and naming of the mental illness and its implication in the management

The family and relatives of patient with mental illness in the traditional healer's centers who participated in the focus group of discussion defined mental illness according to its etiological basis. The word *Majnoon* which is commonly used to define the person with mental illness is originally derived from the word *jinn* (the word *jinn* in Arabic has a common origin with overlapping words with different connotations and can be traced to refer to a shelter, screen, shield, paradise, embryo, and madness). According to Islamic teaching, *jinn* live alongside other creatures but form a world other than that of mankind. Though they see us they cannot be seen. The Characteristics they share with human beings are intellect and freedom to choose between right and wrong and between good and bad, but according to the *Holy Qur'an* their origin is different from that of man ('And indeed, we created man from dried clay of altered mud and the *Jinn* we created afore time from the smokeless flame of fire'). *Jinn* tempt and seduce mankind to stray from Allah (God); Satan (*shaytan*, devil) is thought to be from their realm. *Jinn* are said to inhabit caves, deserted places, graveyards and darkness. According to *Sakr* they marry, produce children, eat, drink and die but unlike human beings have the power to take on different shapes and are capable of moving heavy objects almost instantly from one place to another. Many participants in the focus group discussions believed in the *jinn* possession evil eye and as causes of the mental illness. According to traditional healers, they are both a diagnosis and an explanation for many mental symptoms, symptoms which need the attention of a traditional healer. These different traditional names and definitions for the person with mental illness imply different intervention and management procedures from the traditional healer's point of view. The *Matouh* the one who was born mentally ill or who was mentally subnormal since early childhood nothing can be done for him only rehabilitation and can be given certain tasks in the traditional healers centres.

The *Mastool* the one who was intoxicated by alcohol, hashish or any other chemicals the traditional healers can help to detoxify him by certain herbs and by religious ways and motivation and certain traditional relapse prevention and rehabilitation techniques that can help patient to stop the abuse of drugs and to come back to normal life. In these three conditions, the *majnoon*, possessed by *jinn*, the *mayoun* who was possessed by the evil eye and the *mas-hour* who was possessed by black magic, the traditional healers almost apply similar traditional healing methods and some religious techniques to manage them such as: *Rogya* which is recitation of some verses of the holy Quran to the patient. *Mehaya* are special verses written on a board, papers or tree leaves, the relatives and family wash it in water and then give the liquid to the patient to drink, or to use it wash the body with. *Bakhara* writing a special verses on a paper or tree leaves and burning it to get the smoke

for treating the patient. These techniques are practice twice per day morning and at evening. This kind of practice the traditional healers usually inherited from their grandparents or their elder healer.

### Description, identification and the symptoms of the mental illness

From fire, the almighty Allah created both male and female *jinn* (spirit in English) who invisibly live with and share human activities. *Jinn*, good or bad due to their beneficial or harmful effects could be believers or nonbelievers in Allah and could take any shape and form. Like *jinn*, the evil eye and magic also mentioned in the Holy Quran have disastrous effects on human health and behaviour. The followers of Islam believe in *jinn* who can see and watch humans and bedevil them. In Islamic writings true *jinn* possession can cause a person to have seizures and to speak in an incomprehensible language. The possessed is unable to think or speak from his own will. This is supported by the examples from the focus group. The possessed patients often report that they had perceived *jinn* entering their bodies and moving in different organs. This is followed by bizarre, multiple behaviour and odd movements that may imply psychotic and nonpsychotic disorders. These disorders are also largely diagnosed in female patients who are particularly weak, misinformed, uneducated and of poor backgrounds suffering both from the evil eye and magic, who also present with an array of somatic symptoms, interpersonal conflicts, and alleged misfortunes. The symptomatology that usually attributed to *Jinn* Possession, Evil eye or Magic includes headache, abdominal and chest pain, backache and joints pain. Other less common somatic symptoms were vomiting, tiredness, paralysis, giddiness, tremors, anorexia, and dyspnoea. In addition to these apparently somatic symptoms, there were some psychological symptoms that overlay all three disorders, and these included anxiety, fear/doubt of developing disease, and obsessive thinking. Other important psychological symptoms were insomnia, hate, depression, feeling of having a weight on the chest, talkativeness, hyperactivity, estrangement between wife and husband and also between two/three wives, persistent conflict among family members, seizure-like state, psychotic disturbance and violent behaviour, aggression, bizarre movements and imaginations, aphonia, blindness, altered consciousness, and economic loss.

### Management and treatment of mental illness by traditional healers

Traditional healers believe firmly in what they do; and this sense of conviction is equally shared and reciprocated by the sick who seek their help. Thus strong rapport can be established between the healer and the patient. The personality and ability of the healer, together with his reputation, determine to a great extent the outcome of treatment. The forms of religious therapy vary greatly but, on the whole, the focal point of treatment is the invocation made to God (Allah) in order to bring a cure; this is aided by the performance of special practices directed against the underlying cause. The unorthodox therapies most frequently prescribed by traditional healers to the patients with evil eye, *jinn* possession and magic were *Rogya* (reading specific verses from Holy Quran), soothing sayings by the Prophet Mohammed (PBUH), regular performance of prayers, exorcism (of *jinn* and other devious supernatural spirits), physical punishment, temporary strangulation, cautery, *saaout* (snuff – i.e. inhalation of a herbal powder), local application of a paste made of different types of herbs, drinking water mixed with herbs, water mixed with paper with Quranic verses written on it, and local application of or drinking of special oils. *Saaout* may also imply the use of herbal nasal drops or a similar material mixed with oil or an oily substance used as a nasal spray. Somatic and emotional



symptoms call for different kinds of explanations and help-seeking behaviours. Somatic symptoms require the aid of physicians while emotional symptoms need religious help. Socially embarrassing and unprovoked aggressive behaviours are most likely to be attributed by traditional Arabs to the supernatural influence of demons (jinn) and hence call for the help of traditional healers who can exorcise such noxious agents. In cases of supposed jinn possession, underlying organic disorders should be excluded by physical examination and by such investigations as are necessary. Any underlying mental disorder should be treated by the usual psychiatric methods, but the clinician should respect the cultural issues and avoid directly contradicting statements from the patient or relatives about the reality of possession. Indeed, it may be appropriate for the therapist to call for the involvement of an Imam or religious leader in the management of such cases. The traditional healer must have strong faith in Allah to expel the jinn. This is usually done in one of three ways: remembrance of God and recitation of the Holy Quran (*Zikr*); blowing into the person's mouth, cursing and commanding the jinn to leave; and by calling upon Allah, remembering him and addressing his creatures (*Rogya*). Some faith healers strike the possessed person, claiming that it is the jinn that suffer the pain. This practice, however, is deplored by Muslim scholars as being far from the principles of Islam and the instructions of the Prophet. Reported that the majority of Muslim studied in UK believed in the existence of Jinn, black magic and the evil eye and approximately half of them stated that these could cause physical and mental health problems and that these problems should be treated by both doctors and religious figures.

### Reasons for seeking the help of a traditional healer

In our current study patients sought treatment from a traditional healer because of their strong belief in its effectiveness. They did not consult traditional healers because it was less costly than psychiatric services, or because it was nearer to their homes; patients and families travelled long distances to seek traditional treatment. This reflects the effect of cultural beliefs of the Sudanese society in help-seeking. This finding is in common agreement with Campion & Bhugra's. Study in south India, where they found the residence of the patient did not influence their prior consultation with traditional healers. Found in a study in India, that the reasons for visiting faith healers included their easy accessibility. Reported that those residing in rural areas were more likely to use religious healing. Furthermore, patients' relatives and families can travel long distance to come to the famous traditional healer's centres. This may, of course, reflect the strength of religious beliefs and the religiosity of the individuals, which need to be linked to their usage of traditional religious healing. The geographical distance from the religious healers was not a barrier, which indicates that the need of relief from distress is of paramount importance. Many people, even those who have a psychiatric clinic near to them, claim that psychiatric services would not be helpful in their case; instead, regardless of how far the THC is from them, the most important thing is to get cured, and so consultation with a traditional is sought. The participants' comments derived a very important issue: that in spite of easy access to formal psychiatric services in some areas, people still travel long distances to see traditional healers. Why? It may reflect the strength of religious beliefs and the religiosity of the individual and family, which is in turn linked to their usage of traditional (religious) healing. Thus, the nearness of psychiatric services or the geographical distance of the THC does not affect the help-seeking behaviour. In the present study, the second reason for seeking a traditional healer's treatment was the belief, shared by patients, families and traditional healers alike, in the supernatural causation of the mental illness. This finding is similar to those of previous studies. Studied the pathways

to primary mental health care in Harare, Zimbabwe. Different factors have been found to operate in the decision-making process of choosing to consult either the biomedical or the traditional care providers. The latter more often provided their clients with explanations than did the biomedical care providers, and these explanations were most often spiritual. Prevailing socio-cultural concepts about the aetiology of mental illness are a powerful determination of help-seeking attitudes, investigating a sample of mentally ill patients in Malaysia and using a 20-item checklist, found that 53% of the patients attributed their illness to a supernatural agent, particularly witchcraft and possession by evil spirits. A belief in supernatural causes of mental illness was found significantly more commonly among those who had consulted traditional healers. In Arab culture, the conceptual attribution of mental illness swings between the biomedical and spiritual models. In Saudi Arabia, for example, most traditional healers operate on the widely accepted belief that mental disorders are caused by magic, the evil eye or possession by a (or the) devil. This seems to be a powerful determinant of help-seeking behaviour among vast segments of the population and of the types of therapeutic procedures employed by traditional healers. Argued that psychiatric patients prefer traditional healing because traditional healers tend to give them culturally acceptable interpretations of their conditions. Reported that a belief in supernatural causes and recommendations of relatives and friends were the main reasons for patients to contact a traditional healer. On the other hand, the reasons for visiting a mental hospital or other psychiatric service as a first choice were recommendations by significant others, lack of response to other systems of healing, the availability of low-cost treatment, previous contact and acquaintance with the hospital, and to seek a second opinion about the mental illness. Previous studies in this area have suggested that care for psychosis is most often sought from traditional healers. A supernatural view of the origin of mental illness may imply that orthodox medical care would be futile and that help would be more likely from spiritualists and traditional healers. Our current study confirms the view that supernatural causes of mental illness are perceived by many people receiving treatment in THCs in central Sudan. This may affect the propensity to seek psychiatric medical treatment and could also contribute to the traditional healers' non-referral or delayed referral of psychotic patients for psychiatric attention

### Who decides where to seek help?

The family holds a central position in the life of the patients with mental disorders and on the decision where to seek help. They make a tremendous contribution to the therapeutic process. In our present study, the patient with psychotic disorders were usually brought involuntary (i.e. against their will or consent) by their families and relatives for treatment in the THCs. The decision to consult a particular healing specialist is often taken by the family or the carer. Socio-cultural factors affect the decision to seek help by the family. Psychotic patients usually lack personal choice in such matters. This may be why family attitudes and beliefs play such an important role in the decision to seek help. It is important to mention at this point the effect of war and conflicts and instability in a country like Sudan, which has made a broad segment of the population prone to poverty and to lack access to health services; many families and relatives of patients with mental disorders consequently have no other choice but to approach traditional healers for help.

### Conclusion and clinical implication

The new information that we were able to catch in this study is that, people prefer to consult traditional healers not only because of the easy

accessibility of traditional services, lack of convenient health services and the common belief on supernatural causes of mental illness but also because of the strong family beliefs in the effectiveness of traditional healing in the management of mental disorders. Local understanding of the common beliefs and attitudes of families and relatives with mental illness in relation to mental disorders are very important for psychiatrist and mental health professional. Understanding the local beliefs models and the traditional healing methods is very important, which can be incorporated in the training curriculum of mental health workers, thereby bridging the gap to Western training and offering clinically relevant mental health care for people with mental disorders. It is vital to establish channels of collaboration and common understandings between traditional healers and mental health professionals in Sudan, where a majority of people with mental illness consult traditional healers first. Collaboration could help in the early detection and early management of mental disorders, with the prospect of better outcomes. Collaboration could also help to end some of the harmful practices used by the traditional healers. Traditional healer centres could be used as bases for community rehabilitation facilities for people with mental illness. Moreover, improving the education level of traditional healers might enable them to have a better understanding of mental illness and of the benefits of modern psychiatric treatment. Mental health plans, policies and programmes should not be based exclusively on medical models, but incorporate larger socio-cultural and religious dimensions. It is a challenging task, but can help to break barriers to the mental health services. Mental health cannot be achieved without achieving a balance in life with others and with the environment. There is little formal interaction between the biomedical and traditional sectors in

Sudan; if this situation remains unchanged, it may be impossible to meet patients' needs in the near future. The role of the traditional sector in the mental health care system needs to be addressed. That is, Sudan needs to move towards officially recognizing traditional healers as health care providers for people with mental disorders and to facilitate their working side by side with Western medicine, at least within primary health care. An integrated approach combining Western and traditional medicine may be especially useful and culturally acceptable for the management of patients with mental disorders. Further research would be needed to assess different methods of collaboration between the two systems. Future studies are also need to know how traditional healers identify, classify and manage mental illnesses.

#### References

1. Abdelgadir E (2012) Exploring Barriers to the Utilization of Mental Health Services at the Policy and Facility Levels in Khartoum State Sudan. University of Washington.
2. Abbo C (2011) Profiles and outcome of traditional healing practices for severe mental illnesses in two districts of Eastern Uganda. *Global health action* 4:7117.
3. Chatwal GR, Anand SK (2002) Instrumental methods of chemical analysis 5th edition. Mumbai Himalayapublishing house 2149-2184.
4. Sethi PD (2006) High Performance Liquid Chromatography Quantitative Analysis of Pharmaceutical Formulations 4th Edn 11-97.
5. Skoog DA, Holler FJ, Crouch SR (2017) Principles of instrumental analysis 6th ed. Delhi Cengagelearning 806-835.
6. (2005) Validation of analytical procedures: Text and Methodology Q2 (R1). ICH Harmonized Tripartite Guideline 4-13.
7. Lambert S, Valiulis Q (2018) Cheng Advances in optical sensing and bioanalysis enabled by 3D printing. *ACS Sens* 3: 2475-2491.