

# Role of traditional healers in the pathway to care of patients with bipolar disorder in Egypt

International Journal of
Social Psychiatry
1–8
© The Author(s) 2015
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/0020764014565799
isp.sagepub.com

**\$**SAGE

Tarek Assad<sup>1</sup>, Tarek Okasha<sup>1</sup>, Hisham Ramy<sup>1</sup>, Tamer Goueli<sup>2</sup>, Hanan El-Shinnawy<sup>2</sup>, Mohamed Nasr<sup>2</sup>, Heba Fathy<sup>2</sup>, Dalia Enaba<sup>2</sup>, Dina Ibrahim<sup>1</sup>, Mahmoud Elhabiby<sup>1</sup>, Nesreen Mohsen<sup>1</sup>, Sherien Khalil<sup>1</sup>, Mohamed Fekry<sup>1</sup>, Nivert Zaki<sup>1</sup>, Hani Hamed<sup>3</sup>, Hanan Azzam<sup>1</sup>, Marwa A Meguid<sup>1</sup>, Menan AbdelMaksoud Rabie<sup>1</sup>, Marwa Sultan<sup>1</sup>, Soheir Elghoneimy<sup>1</sup>, Osama Refaat<sup>2</sup>, Doaa Nader<sup>1</sup>, Doha Elserafi<sup>1</sup>, Marwa Elmissiry<sup>1</sup> and Iman Shorab<sup>1</sup>

#### **Abstract**

**Background:** A large number of mentally ill patients prefer to visit non-medical practitioners such as traditional healers because of the confidence in the system, affordability and accessibility of the service. This may lead to delay in seeking psychiatric services and has prognostic impact.

**Aim:** To assess the rate of bipolar affective disorder (BAD) patients seeking traditional healers, the sociodemographic and clinical correlates of those patients.

**Methods:** We assessed 350 patients with BAD after confirmation of diagnosis with Structured Clinical Interview for DSM-IV Axis I Disorder (SCID-I) research version and assessment of functioning with Global Assessment of Functioning scale. They were assessed for percent, rate and timing of seeking traditional healers.

**Results:** In all, 40.8% sought traditional healers, with 34.9% more than four times. Of those, 62.2% were before seeking psychiatric services and 37.8% after. Lower educational level, less impairment of functioning and presence of hallucinations were significant correlates.

**Conclusion:** This study shows that most of the patients suffering from mental illness prefer to approach faith healers first, which may delay entry to psychiatric care and thereby negatively impact the prognosis of BAD. This highlights the importance of mental health education and developing a positive collaborative relationship with traditional healers.

#### **Keywords**

Traditional healers, bipolar patients, pathway to care

#### Introduction

Mental disorders contribute about 14% of the global burden of disease. Neuropsychiatric conditions including disorders such as schizophrenia, mood disorders, substance abuse and dementia are the number one contributor to the worldwide burden of non-communicable diseases (Mathers & Loncar, 2006; Stein & Seedat, 2007). Despite the staggering burden of mental illness, the treatment gap is wide. A large proportion of people with mental health problems do not receive treatment and care from a Western health facility. A multicenter survey by World Health Organization (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 (Chisholm et al., 2007).

In an Egyptian study done by Ghanem, Gadallah, Meky, Mourad, and El-Kholy (2009), they found that the overall prevalence of mental disorders in the surveyed sample was 16.93%. As group entities, the three most common disorders

<sup>1</sup>Ain Shams University, Cairo, Egypt <sup>2</sup>Cairo University, Giza, Egypt <sup>3</sup>Fayoum University, Al Fayoum, Egypt

## Corresponding author:

Sherien Khalil, Ain Shams University, Cairo 11566, Egypt. Email: sherryahmed1@yahoo.com

in the surveyed sample were mood disorders (6.43%), anxiety disorders (4.75%) and multiple disorders (4.72%).

As in the majority of developing countries, mentally ill patients in Arab countries tend to somatize their psychological symptoms. This presentation of mental ill health reflects on the pattern of consultation. Patients tend to pass through different healthcare-providing filters before reaching the mental health clinic or hospital. The real challenge for mental health professionals is the first filter (Okasha, 1999).

The importance of traditional medicine as a source of primary health care was first officially recognized by the WHO in the Primary Health Care Declaration of Alma-Ata (1978) and has been globally addressed since 1976 by the Traditional Medicine Program of the WHO (Ndetei et al., 2013). According to WHO (2002), traditional medicine is the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses. The application of diagnosis and treatment methods is largely influenced by the culture and beliefs dominant in a particular community to the extent that they may be ineffective when applied in a different context (Koon, 1999).

WHO estimates that 80% the people in Africa use traditional medicinal sector as their first contact place for all types of mental/physical health problems. The researchers attribute this high patronage to the fact that the treatment is holistic by taking into account the spiritual, physical and psychosocial aspects of health (Atindanbila & Thompson, 2011).

The WHO (2003) stated that the popularity of traditional mental healers is due to the following reasons – *confidence in the system*: the explanations offered to the clients as the cause of their illnesses are more acceptable than the allopathic medicine; *affordability*: the cost is cheaper and flexible than allopathic medicine. It affords the clients the opportunity to settle their bills when they can afford. More often than not, they pay the bills only when they are fully recovered and can work toward paying the bills; *accessibility*: traditional healers are found in remote areas where hospital facilities cannot be found. Even in such places where facilities are found, they lack the basic drugs and mental health staff to manage them.

In a developing country like Egypt, majority of people live in rural areas. Psychiatric facilities are, however, located mainly in major cities. In this context, most of the people suffering from mental disorders do not have access to hospitals and generally approach traditional faith healers (Pradhan, Sharma, Malla, & Sharma, 2013)

Many mentally ill patients see traditional healers before they consult general practitioners, psychiatrists or emergency services (Hussein, 1991). Traditional healers in Egypt explain mental illness as due to spiritual and supernatural causes such as possession state, 'evil eye' and witchcraft (Abdullah, 1998; Alsughayir, 1996). Traditional healing can be considered as a form of Islamic counseling. Here, the traditional healers, who may be a shaykh, derwish or pir depending on their geographical location, practice various rituals to heal a client. This model explains the illness or personal problems as a possession by spirit (jinn). The solution for a healer is to exorcise the spirit, through reading Quran, prayers, zar and beating spirits, out of the 'client's' body, which then frees the person from misery (Al-Krenawi & Graham, 1997). Despite the support of some studies to the value of traditional healing, many Muslims do not believe in this form of healing nor consider it Islamic, which in these instances would make its use inappropriate and even banned in certain Muslim countries (Al-Issa, 2000; Sabry & Vohra, 2013).

Rarely do they understand or employ the biopsychosocial approach to mental illness (Abdullah, 1998; Alsughayir, 1996). The signs and symptoms they use to ascertain any of the supernatural states are vague, overinclusive and lack validity (Abdullah, 1998).

The family of the patients may believe that treatment is based on religious principles, but the beliefs of the healers are not based on any religious evidence. We have to admit that the poor response to treatment and relapsing course of major chronic mental illnesses are behind many such family attitudes and beliefs. In addition, ignorance about psychiatry, and underdeveloped psychiatric services, may contribute to such behaviors (Alhamad, 2003).

There is at present a gap between psychiatrists, mental health professionals and people with mental disorders. This is true of many low-income countries. Psychiatrists and other service providers need to make more effort to reach those patients who require modern psychiatric management (Sorketti, Zuraida, & Habil, 2012).

This study is aiming to figure out the rate of traditional healers' consultation done by bipolar affective disorder (BAD) patients, to delineate the sociodemographic characteristics of patients with BAD who seek consultation from traditional healers and to investigate the most prevalent clinical correlates in those patients.

## Methodology

## **Participants**

This study was conducted in three different governmental and private psychiatric hospitals in Cairo to represent all strata of Egyptian population. A total of 350 patients diagnosed with BAD according to *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision (DSM-IV-TR) (157 females and 193 males) with age ranging from 18 to 55 years were selected. The patients were selected irrespective of their sex, socioeconomic or educational status. Patients with medical comorbidities as well as those who refused to participate or withdrew during the interview were excluded. This study

Assad et al. 3

Table 1. SCID-I diagnoses of the study sample.

| SCID-I diagnosis                                 | No. | Percentage |
|--|-----|------------|
| BAD-I  | 335 | 83.75      |
| BAD-II   | 15  | 3.75       |
| Total bipolar disorder                           | 350 | 87.5       |
| Bipolar disorder NOS                             | 2   | 0.5        |
| Major depressive disorder                        | 23  | 5.75       |
| Dysthymic disorder                               | 3   | 0.75       |
| Mood disorder due to a general medical condition | 1   | 0.25       |
| Schizophrenia                                    | 5   | 1.25       |
| Schizoaffective disorder                         | 9   | 2.25       |
| Substance-induced psychotic disorder             | 3   | 0.75       |
| Adjustment disorder                              | 4   | 1          |
| Total  | 400 | 100        |

SCID-I: Structured Clinical Interview for DSM-IV Axis I Disorder; BAD: bipolar affective disorder; NOS: not otherwise specified.

is part of multicenter Egyptian research attempts to establish a reliable database for BAD patients, the 'Mood disorder Evaluation and Research Group in Egypt' (MERGE).

Ethical approval for the study was granted by the Egyptian Psychiatric Association, Ethical and Research Committee, as well as the Ethical Committee of the General Secretariat of Mental Health, Ministry of Health and Population, Egypt. An informed written consent was obtained from all patients for their participation after explaining in detail the study procedures. Patients were assured of the confidentiality of information, that participation in the study was completely voluntary and that they had the freedom to withdraw from the assessment at any time without any effect on service delivery.

#### Procedures and instruments

All patients with provisional diagnosis of BADs in the participating centers were referred to the research group investigators by the local psychiatrist responsible for service delivery during the period of the study from May 2012 to November 2012.

Patients were assessed using the Structured Clinical Interview for DSM-IV Axis I Disorder (research version) (SCID-I-RV) to confirm the diagnosis of BAD (First et al., 2002) and a semistructured diagnostic interview for making the major DSM-IV Axis I diagnoses and to assess the severity of the disorder and comorbidity. The instrument is designed to be administered by a clinician or trained mental health professional — the Global Assessment of Functioning (GAF) scale to rate the social, occupational and psychological functioning of adults and relate it to traditional healer seeking behavior.

A semistructured sheet was designed by the researchers for sociodemographic data, family history of psychiatric disorders, as well as data on the pattern of the patients seeking behavior toward traditional healers. Data about patients' visits to traditional healers were collected by a group of questions about history of seeking advice and number of times of traditional healers' visits, before or at the time of receiving psychiatric service. All assessment procedures were carried out by trained senior psychiatrists (consultants with minimal of 10 years of clinical practice).

## Statistical analysis

The computer software package SPSS for Windows (version 18) was used for the data analysis. Continuous variables such as age were expressed as mean and standard deviation, whereas categorical variables such as gender were presented as frequencies. Chi test (or its substitute the Fisher's exact test) is used to estimate the difference in unpaired categorical variables and Student's test to estimate the difference in numerical variables between two study population subgroups. A *p*-value <.05 was considered as statistically significant. Univariate analyses were performed using non-parametric methods due to the non-normal distributions of the dependent variables. Analysis of variance (ANOVA) methods (Mann–Whitney *U* and Kruskal–Wallis) were used for categorized independent variables.

#### Results

## Patient characteristics

The study sample consisted of 400 patients, of which 350 patients were diagnosed as having BAD: 335 (83.75%) were diagnosed as BAD-I and 15 (3.75%) as BAD-II; the rest of them were having other diagnoses as shown in Table 1.

Description of history of traditional healers' visits as a pathway to psychiatric service. In all, 143 (40.8%) patients sought advice from traditional healers, while 156 (44.6%) patients did not and 51 (14.6%) did not report their visit (don't remember) as shown in Table 2. Patients with positive history of visiting traditional healers were found to seek help

Table 2. History of traditional healers' visit among BAD patients.

|   | No. | Percentage | Valid percentage |
|---|-----|------------|------------------|
| Negative history of traditional healers | 156 | 44.6       | 52.2             |
| Positive history of traditional healers | 143 | 40.8       | 47.8             |
| Total                                   | 299 | 85.4       | 100              |
| No reported history                     | 51  | 14.6       |                  |
|   | 350 | 100        |                  |

BAD: bipolar affective disorder.

**Table 3.** Frequency of visiting traditional healers by BAD patients.

|                      | No. | Percentage |
|----------------------|-----|------------|
| Once                 | 25  | 17.5       |
| Twice                | 21  | 14.7       |
| Three times          | 12  | 8.4        |
| Four times or more   | 50  | 34.9       |
| Unknown no. of times | 35  | 24.5       |
| Total                | 143 | 100        |

BAD: bipolar affective disorder.

**Table 4.** Timing of seeking traditional healers' service in relation to medical psychiatric service.

|                                    | No. | Percentage |
|------------------------------------|-----|------------|
| Before medical psychiatric service | 89  | 62.2       |
| After medical psychiatric service  | 54  | 37.8       |
| Total                              | 143 |            |

once in 17.5%, while 34.9% sought help more than four times (Table 3).

Timing at which patients sought advice from traditional healers, whether before or after referral to psychiatric service, was questioned, and it revealed that 62.2% of those sought traditional healers before reaching psychiatric service, while 37.8% sought advice after having psychiatric consultation (Table 4).

Characteristics and symptomatology profile of patients who sought traditional healers. Comparison between BAD patients with positive history of traditional healers' visit and those with negative history as regards sociodemographic data revealed statistically significant difference in the educational level of patients in which the group that sought help of traditional healers were less educated (p=.012), but all other demographic data did not show significant difference between the two groups of patients: age, gender and religion as shown in Table 5.

Comparison between BAD patients with positive history of traditional healers' visit and those with negative history as regards clinical correlates shows that there was significant difference between the two groups as regards

the presence of comorbidity (p=.01), and GAF scale (p=.04). There was a highly significant difference among the two groups as regards the presence of hallucinations in their symptomatology profile (p < .001).

Other clinical correlates such as age of onset, type of bipolar, family history, type of episode or its severity, psychotic symptoms such as delusions and number of depressive or manic episodes during their illness did not show any significant difference in the comparison between the two groups as shown in Table 6.

### **Discussion**

The study aimed to investigate the pattern of traditional healers' consultation among BAD patients, along with the sociodemographics and the clinical correlates. In this study, 47.8% reported consulting traditional healers; these results were consistent with previous Egyptian studies that found this high percentage of patients seeking traditional healers' help. Okasha, Kamel, and Hassan (1968) found that 60% of outpatients at a university hospital in Cairo have been to traditional healers before coming to psychiatrists. El-Amin and Refat (1997) studied attendees to a famous Sheikh in a village in Sharkia, Egypt, and found that out of the 46% who were diagnosed as having psychiatric disorders, only about 9% received psychiatric interventions. El-Defrawi, Sobhy, El-Sheikh, Tantawy, and Embaby (2000) reported in a sample attending a university hospital in Ismailia, Egypt, that 77.5% have attended nonpsychiatric traditional treatment and that 59% of them sought it as a first treatment choice. Studies in other Islamic and non-Islamic countries report percentages as high as ours, as in Pakistan (Saeed, Gater, Hussain, & Mubbashar, 2000) it was found that 60% of attendees of faith healers have mental disorders. In Malaysia, Razali and Najib (2000) reported 69% of their psychiatric patients visiting traditional healers; Abiodun (1995) reported 40% of patients seeking help for traditional or religious treatment in Nigeria.

We found that 62.2% of our patients visited the traditional healers before psychiatric consultation, with 34.9% more than four times. Pradhan et al. (2013) found that 35.2% of psychiatric patients visited faith healers as their first consultation; meanwhile, 50% of BAD patients visited faith healers. In Europe and North America, around 50% of

Assad et al. 5

Table 5. Comparison between BAD patients with and without history of traditional healers' visit as regards demographic data.

|                      | Positive history for traditional healers | Negative history for traditional healers | p-value |
|----------------------|--|--|---------|
| Age, years           | 36.1 ± 11.4                              | 33.8 ± 12.1                              | .09     |
| Gender               |  |  |         |
| Male                 | 36 (24.7)                                | 92 (59.0)                                | .11     |
| Female               | 14 (11.8)                                | 64 (41.0)                                |         |
| Educational level    |  |  |         |
| Illiterate, R&W      | 12 (52%)                                 | II (48%)                                 | .012*   |
| Basic education      | 54 (57%)                                 | 40 (43%)                                 |         |
| Secondary education  | 58 (48%)                                 | 62 (52%)                                 |         |
| University education | 19 (30%)                                 | 43 (69%)                                 |         |
| Religion             |  |  |         |
| Muslims              | 137 (95.8)                               | 148 (94.9)                               | .79     |
| Christians           | 6 (4.2)                                  | 8 (5.1)                                  |         |

BAD: bipolar affective disorder; R&W: read and write.

**Table 6.** Comparison between BAD patients with positive history of traditional healers' visit and those with negative history as regards clinical correlates.

|   | Positive history for traditional healers | Negative history for traditional healers | <i>p</i> -value |
|---|--|--|-----------------|
| Age of onset (years) of BAD                     | 22.9 ± 6.1                               | 24.3 ± 8.2                               | .11             |
| BAD type  |  |  |                 |
| BAD-I   | 137 (95.8)                               | 147 (94.2)                               | .53             |
| BAD-II  | 6 (4.2)                                  | 9 (5.8)                                  |                 |
| Family psychiatric history                      |  |  |                 |
| Positive family history                         | 74 (51.7)                                | 74 (47.4)                                | .46             |
| Negative family history                         | 69 (48.3)                                | 82 (52.6)                                |                 |
| Type of the current episode                     |  |  |                 |
| Manic   | 97 (76.4)                                | 101 (70.6)                               | .60             |
| Mixed   | 11 (8.7)                                 | 16 (11.2)                                |                 |
| Hypomanic                                       | 3 (2.4)                                  | 2 (1.4)                                  |                 |
| Major depressive                                | 16 (12.6)                                | 24 (16.8)                                |                 |
| Severity of current episode                     |  |  |                 |
| Mild  | 2 (1.6)                                  | 2 (1.4)                                  | .64             |
| Moderate  | 9 (7.2)                                  | 11 (7.9)                                 |                 |
| Severe, without psychotic features              | 30 (24.0)                                | 45 (32.4)                                |                 |
| Severe with mood-congruent psychotic features   | 67 (53.6)                                | 64 (46.0)                                |                 |
| Severe with mood-incongruent psychotic features | 17 (13.6)                                | 17 (12.2)                                |                 |
| Psychiatric comorbidity                         |  |  |                 |
| Without comorbidity                             | 122 (85.3)                               | 114 (73.1)                               | .01*            |
| With comorbidity                                | 21 (14.7)                                | 42 (26.9)                                |                 |
| Symptom profile                                 |  |  |                 |
| Delusions                                       |  |  |                 |
| Absent  | 44 (30.8)                                | 62 (39.7)                                | .11             |
| Present   | 99 (69.2)                                | 94 (60.3)                                |                 |
| Hallucinations                                  |  |  |                 |
| Absent  | 75 (52.4)                                | 116 (74.4)                               | <.001*          |
| Present   | 68 (47.6)                                | 40 (25.6)                                |                 |
| Number of depression episodes                   | $0.51 \pm 0.99$                          | 0.59 ± 1.03                              | .52             |
| Number of manic episodes                        | $3.8 \pm 3.8$                            | 2.97 ± 2.5                               | .06             |
| Global Assessment of Functioning scale          | 47.9 ± 18.8                              | 43.1 ± 18.0                              | .04*            |

BAD: bipolar affective disorder.

<sup>\*</sup>means highly significant.

the population have used complementary medicine at least once (Sexton & Sorlie, 2008), but this percentage varies from study to study depending on how complementary medicine is defined and where the study is carried out. A recent study from Germany among psychiatric inpatients showed that 50% had used traditional or complementary medicine parallel to psychiatric treatment (Assion, Zarouchas, Multamaki, Zolotova, & Schroder, 2007). In many countries, traditional medicines provide the only affordable treatment available to poor people. In developing countries, up to 80% of the population depend on traditional medicines to help meet their healthcare needs (WHO, 2002). Traditional healers are an important source of psychiatric support in many parts of the world, including Africa. They offer a parallel system of belief to conventional medicine regarding the origins, and hence the appropriate treatment of mental health problems (Ndetei, 2007). Traditional healers are the first professionals contacted for mental illness in many parts of Africa and Arab countries (Abiodun, 1995; Ngoma, Prince, & Mann, 2003). This is because they are sufficient in numbers in the communities, are accepted, do home visits, do not stigmatize mental illness, are often consulted and have been demonstrated to see many people with mental disorders (Ndetei et al., 2013).

We found no difference in gender between patients who had consulted and not consulted traditional healers. Other studies such as Razali and Najib (2000) and Bell et al. (2001a) showed similar results. However, in some studies (Bell et al., 2001b), participation in native healing practices was predicted by female gender. Gender difference in the nature of the supernatural powers causing the disorder in Bedouin Arabs was noticed by Al-Krenawi (1999). Pradhan et al.'s (2013) study done in Nepal shows that more females approached the traditional healers than males, and males tended to approach psychiatrist more than females. This finding is similar with earlier research done in India (Kapur, 1979). Moreover, religion difference had no relation with traditional healing consultation. The previous results might ensure that traditional healing consultation in our sample was mainly a general societal attitude due to cultural beliefs rather than gender or religion difference.

This study found positive correlation between low educational level and traditional healers' consultation. This was consistent with Sorsdahl et al. (2009) who found individuals with little or no formal education were more likely to consult traditional healers than those South Africans who were more educated. Other studies have found no significant relation between patients' education and pattern of help seeking (Bell et al., 2001a; Razali & Najib, 2000).

One of the interesting findings was the negative correlation between the presence of psychiatric comorbidity and traditional healers' consultation. Among the same clinical sample, Asaad et al. (2014) found that prevalence of psychiatric comorbidity among BAD patients was 20.3%,

among which 18% had comorbid substance abuse and 2.3% had comorbid anxiety disorders. This may explain the decreased rate of traditional healing consultation among patients with comorbidity, as the patients and their families might refer the symptoms to the effect of substance rather than black magic or supernatural powers.

In addition, we found that the degree of functional impairment assessed by GAF scale was more severe in those patients who sought medical advice rather than in patients who sought help from traditional healers; according to the authors' interpretation, the severity of symptoms that affects many aspects of the patients' life leading to severe functional impairment pushes the family to seek psychiatric and medical help rather than traditional healers' help, which may highlight the relation between severity of the clinical picture and the clients' attitude toward the choice of help system.

The presence of hallucinations and marked functional impairment rather than delusions was highly correlated with traditional healing consultation. A more likely explanation is that in Egypt and many other Arab and African countries, etiology of mental illnesses is referred to magic, witchcraft, jinn, demon and other cultural factors, so hallucinations and severe functional impairment can be culturally explained by these supernatural powers, more than delusions and thought disturbance.

Finally, it is worth mentioning the importance of advancing new health service policies and legislations that may permit merging the traditional healers' service into the mental health service system in order to reach maximum patient's benefit from this collaboration. Mbwayo et al. (2013) suggested creation of a channel of referrals between healers and the health service by educating them the various psychiatric disorders and their manifestations as well as empowering them through constructive and positive engagement. Similarly, Sorketti et al. (2012) suggested an establishment of channels of common understandings between healers and mental health professionals in those countries where the majority of people with mental illness consult traditional healers first. More research is needed about the relation between traditional healing and mental health in Egypt, especially those concerned with community needs and demands.

# Conclusion

This study reveals that traditional healers play a role in the pathway of treatment of BAD patients. Therefore, it is highly recommended that there is a need for awareness programs aiming traditional healers so that they are better able to recognize the severity of mental illness and to subsequently refer these cases to the psychiatrist on time. Moreover, easy access and more awareness of psychiatric service is one important factor in the decision as to whom patients approach first.

Assad et al. 7

### **Limitations**

This study shed light on the role of traditional healers in BAD patients, yet not a well-representative community sample as all hospitals are located only in Cairo. The study group was composed of bipolar patients attending tertiary care service, which limits the possibility of generalizing these results on different treatment settings.

## **Acknowledgements**

The authors acknowledge the unrestricted grant offered by AstraZeneca, Egypt, and their sincere gratitude goes to patients who participated in the study.

#### **Conflict of interest**

The authors have nothing to declare, there is no conflict of interest.

#### **Funding**

This study was supported by an unrestricted educational grant from AstraZeneca, Egypt.

#### References

- Abdullah, E. K. (1998). Possession: Is it real or fancy? *Arab Journal of Psychiatry*, 9, 99–108.
- Abiodun, O. A. (1995). Pathways to mental health care in Nigeria. *Psychiatric Service*, 46, 823–826.
- Alhamad, A. M. (2003). Physical injuries caused by traditional healers: A report of two psychiatric cases. *Annals of Saudi Medicine*, 23, 289–290.
- Al-Issa, I. (2000). Does the Muslim religion make a difference in psychopathology? In I. Al-Issa I (Ed.), Al-Junun: Mental illness in the Islamic world (pp. 315–353). Madison, CT: International Universities Press.
- Al-Krenawi, A. (1999). Explanations of mental health symptoms by the Bedouin-Arabs of the Negev. *International Journal of Social Psychiatry*, 45, 56–64.
- Al-Krenawi, A., & Graham, J. (1997). Spirit possession and exorcism in the treatment of a Bedouin psychiatric patient. *Clinical Social Work Journal*, 25, 211–222.
- Alsughayir, M. (1996). Public view of the 'Evil Eye' and its role in psychiatry. A study in Saudi society. *Arab Journal of Psychiatry*, 7, 152–160.
- Asaad, T., Okasha, T., Ramy, H., Fekry, M., Zaki, N., Azzam, H., ... Ahmed, S. (2014). Correlates of psychiatric co-morbidity in a sample of Egyptian patients with bipolar disorder. *Journal of Affective Disorders*, 166, 347–352.
- Assion, H. J., Zarouchas, I., Multamaki, S., Zolotova, J., & Schroder, S. G. (2007). Patients' use of alternative methods parallel to psychiatric therapy: Does migrational background matter? *Acta Psychiatrica Scandinavica*, 116, 220–225.
- Atindanbila, S., & Thompson, C. E. (2011). The role of African traditional healers in the management of mental challenges in Africa. *Journal of Emerging Trends in Educational Research and Policy Studies*, 2, 457–464.
- Bell, C. K., Goebert, D. A., Andrade, N. N., Johnson, R. C., McDermott, J. F., Hishinuma, E. S., ... Miyamoto, R. H. (2001a). Sociocultural Factors Influencing Adolescent

- Preference and Use of Native Hawaiian Healers. *Complementary Therapies in Medicine*, 9(4), 224–231.
- Bell, C. K., Goebert, D. A., Miyamoto, R. H., Hishinuma, E. S., Andrade, N. N., Johnson, R. C., & McDermott, J. F., Jr. (2001b). Sociocultural and community factors influencing the use of Native Hawaiian healers and healing practices among adolescents in Hawaii. *Pacific Health Dialogue*, 8, 249–259.
- Chisholm, D., Flisher, A., Lund, C., Patel, V., Saxena, S., Thorncroft, G., & Tomlinson, M. (2007). Scaling up services for mental health disorders: A call for action. *The Lancet*, 370, 1241–1252.
- El-Amin, H. M., & Refat, A. R. (1997). Role of traditional (religious) healing in primary psychiatric care in Sharkia. *The Egyptian Journal of Psychiatry*, 20, 25–35.
- El-Defrawi, M. H., Sobhy, S. A., El-Sheikh, I., Tantawy, A., & Embaby, A. M. (2000). Non psychiatric traditional and folklore management of schizophrenia reported by psychiatric patients in Ismailia. *The Egyptian Journal of Psychiatry*, 23, 215–222.
- First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B.W. (2002). Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Patient Edition. (SCID-I/P) New York: Biometrics Research, New York State Psychiatric Institute.
- Ghanem, M., Gadallah, M., Meky, F. A., Mourad, S., & El-Kholy, G. (2009). National survey of prevalence of mental disorders in Egypt: Preliminary survey. *Eastern Mediterranean Health Journal*, 15, 65–75.
- Hussein, F. A. (1991). Study of the role of unorthodox treatments of psychiatric illness in Riyadh. Arab Journal of Psychiatry, 2, 170–184.
- Kapur, R. L. (1979). The role of traditional healers in mental health care in rural India. *Social Science & Medicine*, 13, 27–31.
- Koon, O. C. (1999). Intellectual property protection of traditional medicine and treatments in Malaysia. In M. Blakeney (Ed.), *Intellectual property aspects of ethnobiology* (Perspectives on intellectual property), vol. 6, pp. 53-80. London, England: Sweet & Maxwell.
- Mathers, C. D., & Loncar, D. (2006). Projections of global mortality and burden of disease from 2002 to 2030. *Plos Medicine*, 3(11), e442.
- Mbwayo, A. W., Ndetei, D. M., Mutiso, V., & Khasakhala, L. I. (2013). Traditional healers and provision of mental health service in cosmopolitan informal settlements in Nairobi, Kenya. *African Journal of Psychiatry*, 16, 134–140.
- Ndetei, D. M. (2007). Traditional healers in East Africa. *International Psychiatry*, 4, 85–86.
- Ndetei, D. M., Mbwayo, A. W., Mutiso, V. N., Khasakhala, L. I., & Chege, P. M. (2013). African Technology Policy Studies (ATPS): Traditional healers and their provision of mental health services in cosmopolitan informal settlements in Nairobi, Kenya (ATPS Working Paper 67). Nairobi, Kenya: African Technology Policy Studies Network.
- Ngoma, M. C., Prince, M., & Mann, A. (2003). Common mental disorders among those attending primary health clinics and traditional healers in urban Tanzania. *The British Journal of Psychiatry*, 183, 349–355.
- Okasha, A. (1999). Mental health services in the Arab world. *Eastern Mediterranean Health Journal*, 5, 223–230.

- Okasha, A., Kamel, M., & Hassan, A. (1968). Preliminary psychiatric observation in Egypt. The British Journal of Psychiatry, 114, 497–498.
- Pradhan, S. N., Sharma, S. C., Malla, D. P., & Sharma, R. (2013). A study of help seeking behavior of psychiatric patients. *Journal of Kathmandu Medical College*, 2, 21–24.
- Razali, S. M., & Najib, M. A. (2000). Help-seeking pathways among Malay psychiatric patients. *International Journal of Social Psychiatry*, 46, 281–289.
- Sabry, W. M., & Vohra, A. (2013). Role of Islam in the management of Psychiatric disorders. *Indian Journal of Psychiatry*, 55(2), S205–S214.
- Saeed, K., Gater, R., Hussain, A., & Mubbashar, M. (2000). The prevalence, classification and treatment of mental disorders among attenders of native faith healers in rural Pakistan. Social Psychiatry and Psychiatric Epidemiology, 35, 480– 485.
- Sexton, R., & Sorlie, T. (2008). Use of traditional healing among Sami psychiatric patients in the north of

- Norway. International Journal of Circumpolar Health, 67,137–148.
- Sorketti, E. A., Zuraida, N. Z., & Habil, M. H. (2012). The traditional belief system in relation to mental health and psychiatric services in Sudan. *International Psychiatry*, 9, 19–20.
- Sorsdahl, K., Stein, D. J., Grimsrud, A., Seedat, S., Flisher, A. J., Williams, D. R., & Myer, L. (2009). Traditional healers in the treatment of common mental disorders in South Africa. *The Journal of Nervous and Mental Disease*, 197, 434–441.
- Stein, D. J., & Seedat, S. (2007). From research methods to clinical practice in psychiatry: Challenges and opportunities in the developing world. *International Review of Psychiatry*, 19, 573–581.
- World Health Organization (WHO). (2002). *Traditional medicine strategy 2002–2005*. Geneva, Switzerland: Author.
- World Health Organization (WHO). (2003). Traditional medicine – Growing needs and potential. Geneva, Switzerland: Author.