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SCHIZOPHRENIA AND OTHER PSYCHOTIC DISORDERS (AK PANDURANGI, SECTION EDITOR)

The Potential Role of Traditional Medicine in the Management of Schizophrenia

Akin Ojagbemi[1] · Oye Gureje[1]

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Abstract

Purpose of Review This article presents an overview of recent literature examining the place of traditional methods of mental healthcare in the management of schizophrenia.

Recent Findings Patients with schizophrenia make up a large proportion of people seeking traditional methods of mental healthcare, and a majority of such users perceive traditional medicine treatment as helpful. Adherence rates to traditional treatment methods among users may be well over 80%. Nevertheless, evidence is currently too weak to inform recommendation of traditional methods as standalone treatments for schizophrenia. Collaboration between traditional medicine practitioners and biomedical mental healthcare providers is feasible and may lead to safer treatments and better outcomes for patients with schizophrenia.

Summary Many patients with schizophrenia preferentially use traditional methods of mental healthcare. A collaborative working relationship that includes training and clinical support for traditional medicine providers by biomedical providers is feasible and may help narrow the global treatment gap for schizophrenia.

Keywords Severe mental illnesses · Schizophrenia · Global mental health priorities · Natural therapies · Traditional medicine · Biomedical practice

Introduction

Schizophrenia is a severe mental disorder, which may present with, depending on the patient [1], impairments in perception, structure of thought, concept of self, cognition, volition, and emotions. The majority of cases have their onset in late adolescence or early adulthood and may evolve into a chronic disorder with deterioration in social, occupational, and personal functioning [2]. The disorder is found in all societies and geographical areas around the world [3] and occurs in approximately 4.6 per 1000 population at any point of observation and between 3.0 and 6.0 per 1000 over the lifetime [4, 5]. People with schizophrenia are 2–3 times more likely to die earlier than the general population [6] and the disorder, being responsible for 7% of total years lived with disability, is now ranked in the top 20 causes of years lived with disability worldwide [7]. For these reasons, schizophrenia has been noted as a serious public health concern and a global mental health priority [8, 9].

Even though the occurrence of schizophrenia and its negative impacts on society are universal, the illness experience of the person with the disorder as well as their help seeking behaviour is shaped by their specific socio-cultural contexts [10]. Recognised in the textual descriptions of Ayuverda and other ancient natural treatments [11], schizophrenia has been known to be treatable for thousands of years using, depending on the cultural context, a variety of local traditional therapies. However, since their discoveries in the 1960s, antipsychotics, with demonstrable efficacy for mostly positive symptoms of schizophrenia [12], have been the mainstay of treatment. Yet, up to 30% of patients with the disorder do not show satisfactory response to first- or second-generation antipsychotics [13] and may remain with persisting cognitive and negative

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✉ Oye Gureje
ogureje@com.ui.edu.ng

[1] WHO Collaborating Centre for Research and Training in Mental Health, Neuroscience and Substance Abuse, Department of Psychiatry, University of Ibadan, Ibadan, Nigeria

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symptoms of schizophrenia as well as drug-induced extrapyramidal and metabolic syndromes [14]. Even so, the cost of currently available treatment for schizophrenia is prohibitive, becoming even more so for cases requiring clozapine argumentation due to their being refractory to other antipsychotics [15]. For this reason, among others, access to effective biomedical treatment for schizophrenia is limited in many countries around the world [16].

The treatment gap for schizophrenia is more than 69% globally and approximately 90% of persons with untreated schizophrenia live in low- or middle-income countries (LMICs) [17]. Even when treatment is free, people with schizophrenia are still less likely, compared with the general population, to seek biomedical care [18, 19]. Notably, specialist mental health staff are often inadequate or inequitably distributed to meet the service gap in many countries. Unfortunately, non-specialist primary healthcare providers who are more readily accessible in the community have often not had sufficient training in delivering care for severe mental disorders and may also harbour negative and stigmatizing attitude to patients with schizophrenia [20]. The long delay in accessing biomedical service and the commonly unmet expectation of a complete cure may further affect engagement with biomedical treatments [19, 21].

In addition to barriers to biomedical service, shared cultural beliefs about causation and treatment of psychosis between traditional health providers and patients with schizophrenia and their families are important factors in the attraction of traditional healing methods [22]. Among these beliefs is that traditional methods offer the most effective way to understanding the root causes of psychosis and are therefore more likely to provide a cure for the condition. The attraction of traditional methods of treatment, the trust patients and families have in the traditional health providers, and their ready accessibility in the community make these methods of mental healthcare potentially valuable in meeting the needs of patients with schizophrenia in large parts of the world, but especially in resource-constrained settings [23, 24].

There is a global recognition of the importance of traditional health approaches in the mental healthcare service of many countries [25]. This importance is also reflected in the policy aspirations in low- and middle-income countries for traditional health providers to be integrated into their formal mental health systems. This is often seen as a way of advancing the global effort to scale up mental healthcare. However, caution has also been expressed about a wholesale integration of traditional methods into mainstream biomedical mental health systems [26]. The caution is based on concerns that traditional health approaches often include methods that are potentially harmful or that detract from due observance of the human rights of patients. Such practices, in some settings, include chaining, shackling, and scarification [27]. A more cautious approach of collaboration rather than integration has therefore been canvassed [26]. Indeed, a similar approach has been explored in the context of reproductive healthcare by traditional birth attendants [28] as well as HIV care by traditional healers [29].

Traditional Methods of Mental Healthcare

We consider, as traditional, methods of mental healthcare that are based on knowledge, skills, practices, practitioners, and products of belief systems indigenous to specific cultures or groups [26, 30]. Traditional methods of mental healthcare are also referred to as complementary and alternative medicine/practice when they become adopted by groups outside their primary cultural origin [22, 30]. Traditional methods of mental healthcare are used in nearly every country or region of the world [22, 23]. The World Health Organization estimates that up to 80% of poorer rural community dwellers globally use traditional medicine [22]. Traditional medicine is also often the main form of mental health service in many LMICs [24, 31] as well as among minority populations in some high-income countries [23, 32].

A large number of traditional methods including herbs, plants, animals, minerals, and other natural products, special procedures, acupuncture, ritual ceremonies, prayers and meditation, yoga, and other forms of exercises as well as many variants of emotional therapies are known to have been used for the treatment of schizophrenia or similar psychotic disorders across cultures [23, 27, 33, 34]. Apart from the fact that these treatments are relatively more accessible to patients and their families because of the closeness of the practitioners to the community, traditional mental health approaches used in the treatment of schizophrenia may have the advantage of being perceived as holistic and more patient-centred [35]. The therapist pays close attention to the symptoms that the patients present with, as well as their overall psychological, social, and spiritual needs, including those of their families and sometimes community. Traditional methods of care for schizophrenia may also be less stigmatising because of the shared belief about causation and treatment by patient, family, practitioner, and community [24].

Even though some forms of traditional treatment methods, such as scarification and fasting, are potentially harmful and detract from due attention to the human rights of patients, the majority of known traditional methods of treatments for schizophrenia are either innocuous or beneficial [23, 27, 33, 34]. This seems to be true especially for acute presentations, as well as for negative symptoms of schizophrenia. For example, one systematic review of seven naturalistic studies that were focused on psychotic disorders (mostly schizophrenia) [23] and drawn from India, Egypt, Nigeria, Malawi, Uganda, Sudan, and South Africa found that acute presentations and relapses of schizophrenia or other psychotic disorders tended

to show symptomatic improvement over a period of 3–6 months among patients receiving treatment from traditional healers. In the same study [23], traditional methods of care showed little benefit for more chronic cases of schizophrenia or the longer term course of acute presentations. In one of the reviewed studies [36], response rates among patients with psychosis (42% schizophrenia) at a traditional healer's compound in Nigeria were comparable to those reported for biomedical treatment received from a nearby hospital [23]. As noted in the review conducted by Nortje and colleagues, 80% of patients receiving care at traditional healers' practices were also patronising nearby biomedical mental health services [23].

Studies specifically focused on Chinese traditional medicine tend to report meaningful therapeutic benefits for persistent negative symptoms of schizophrenia [37, 38•, 39, 40]. For example, in one systematic review and meta-analyses [40] of six randomised controlled trials (RCTs) of Tai Chi, used as an adjunctive treatment with antipsychotics among 483 patients with schizophrenia, there was a large and significant effect of the intervention on negative symptoms of schizophrenia. In the same study [40], there was no significant effect on the positive symptoms of schizophrenia. Schizophrenia symptom dimensions were measured using the positive and negative syndrome scale (PANSS) and the scale for the assessment of negative symptoms (SANS) in the reviewed studies.

Recent Studies

Key information about the studies identified for the present review is presented in Table 1. The main themes investigated include effectiveness of traditional methods in the management of schizophrenia, patients' access, and adherence to traditional methods of mental healthcare, as well as the feasibility and principles of collaboration between biomedical and traditional medicine practitioners in the management of schizophrenia.

Wendan, or warm gall bladder, decoction (WDD) is a herbal mixture prescribed by Chinese traditional medicine practitioners for psychotic symptoms. Depending on the constitution, flavouring, and dosages, WDD may be indicated for schizophrenia [45] or other mental as well as physical health conditions. The mixture is widely available and accessible in China and from traditional Chinese medicine practitioners around the world. In a systematic review based on searches of the Cochrane schizophrenia group's trial register, Deng and colleagues [33] identified 15 RCTs of WDD used alone or in combination with antipsychotics (chlorpromazine or risperidone) among 1427 patients with schizophrenia. One of the reviewed studies [46] including 72 patients with schizophrenia reported improved global clinical state in the short term when WDD was compared with placebo ((Relative risk (RR) = 0.53, 95% confidence interval (CI) = 0.39 to 0.73)) [33]. However, in a random effects meta-analysis of two RCTs comprising 140 patients with schizophrenia, there were no differences in global clinical state or total scores for psychopathology when WDD was compared with antipsychotics [33]. In the same comparison (with antipsychotics), WDD was associated with fewer extrapyramidal side effects (RR = 0.02, 95% CI = < 0.01 to 0.15) [33].

Examining the role of traditional Chinese medicine (TCM) in the specific context of refractory schizophrenia, Wei and colleagues [38•] conducted a systematic review and meta-analyses of fourteen studies examining the effectiveness of TCM alone (5 studies) or in combination with antipsychotics (9 studies). A fixed effects meta-analysis of 3 studies including the 8-week outcomes showed that, compared with antipsychotics, TCM alone led to significantly greater improvement in global clinical state (MD = 2.66, 95% CI = 1.86, 3.81) and PANSS total scores (mean difference (MD) = 4.38, 95% CI = 3.72, 5.04) [38•]. Traditional Chinese medicine used in combination with antipsychotics also led to significantly greater improvement in global clinical state (MD = 2.18, 95% CI = 1.63, 2.91) and PANSS total scores (MD = 9.1, 95% CI = 7.02, 11.18) [38•], in addition to significant improvement in negative symptoms scores (MD = 4.34, 95% CI = 3.03, 5.64) [38•]. In the studies reviewed by Wei and colleagues [38•], there were no differences in the side effect or tolerance profiles of participants in TCM or antipsychotics groups.

Mantra Yoga originated from ancient Hindu practice in India but is now widely practiced in many parts of the world. It uses a combination of chants, breathing, and strength building exercises to achieve mental, physical, and spiritual well-being in practitioners [47]. In a Cochrane systematic review and fixed effects meta-analysis of six RCTs comparing yoga with other forms of exercises for the management of schizophrenia [41], there were no differences in clinical outcomes of participants receiving intervention or control conditions.

In multiracial South Africa, Zingela and colleagues [43•] conducted interviews for 254 adult patients attending mental health services at six large hospitals in the Eastern Cape. Questions were asked about whether, in the past year, participants had also consulted traditional healers along with the biomedical care they received. They found that approximately one-third of patients using hospital mental health services also consulted traditional healers. Patients with a DSM diagnosis of schizophrenia (37%) were the most likely group to consult traditional healers. The self-reported adherence rate to traditional methods of treatment was 80% [43•]. In an adapted realist review with qualitative synthesis of findings from 40 studies, Chidarikire et al. [42] reported that most people with schizophrenia in sub-Saharan Africa were treated with a combination of traditional and biomedical methods.

Table 1 Key information from recent studies reflecting the importance of traditional methods of healthcare for schizophrenia

Reference	Country	Method	Participants	Objectives	Analyses	Findings
Deng et al., [33]	China	Cochrane systematic review and meta--analysis	Fifteen randomised controlled trials (RCTs) including 1437 patients with schizophrenia.	To investigate the effects of Wendan decoction (WDD) for treatment of people with schizophrenia	Random effect meta-analyses of relative risks (RR) and mean differences (MD)	• WDD improved short-term global clinical state compared with placebo • WDD showed no differences in short-term global clinical state and psychotic symptoms compared with antipsychotics • WDD was associated with fewer extrapyramidal effects (EPS) compared with antipsychotics • *Authors conclusion:* better designed studies are needed
Broderick et al., [41]	Ireland	Cochrane systematic review and meta--analysis	Six RCTs including 586 patients with schizophrenia.	To assess the effects of yoga versus non-standard care for people with schizophrenia	Fixed effect meta-analyses of RR and MD	• Yoga showed no difference in global clinical state, social functioning, quality of life, and side- effects compared with other forms of exercises • *Authors conclusion:* too weak to indicate that yoga is superior or inferior to non-standard care.
Wei et al. [38•]	China	Systematic review and meta--analysis	Fourteen RCTs including 1725 patients with schizophrenia.	To investigate the effectiveness of traditional Chinese medicine (TCM) in combination with antipsychotics for refractory schizophrenia	Fixed effect meta-analyses of MD	• TCM was associated with greater reduction in both positive and negative symptoms compared with antipsychotics. • TCM showed no difference in EPS compared with antipsychotics. • *Authors conclusion:* insufficient evidence to inform recommendations
Chidarikire et al., [42]	Australia	Adapted realist review	Fourty studies from 8 African studies	To explore the treatment and interventions available and their impact on people living with schizophrenia in Sub-Saharan Africa	Qualitative synthesis	• Most people with schizophrenia were treated with a combination of traditional and biomedical methods of mental healthcare
Zingela et al. [43•][a]	South Africa	Cross-sectional descriptive	258 patients attending biomedical mental health services	To describe the pattern of use of traditional and alternative healers among psychiatric patients	Descriptive statistics	• People with schizophrenia (37% of consultation) were more likely to have consulted a traditional healer in the past year. • 80% adherence rate to healers' intervention • 58% of those who consulted self-reported feeling better after traditional healer's intervention and will most definitely consult again
Gureje et al., [44••]	Nigeria and Ghana	Cluster randomized controlled trial	307 patients (85% schizophrenia) receiving mental healthcare at traditional healers' practice	To assess the effectiveness and cost-effectiveness of a collaborative shared care model for psychosis delivered by Traditional healers and primary health-care providers	Random effect linear regression for adjusted MD	• Collaboration was associated with greater reduction in psychotic symptoms, disability, self-stigma and duration of admission compared with traditional methods alone • Collaboration was more cost-effective compared with traditional methods alone.

[a] Proportion with schizophrenia not provided in the original article; Wendan decoction = Chinese herbal formula

In a pioneering cluster RCT [44••] which examined the feasibility and effectiveness of collaboration between traditional healers and biomedical mental health service provision for psychosis (85% DSM-IV diagnosed schizophrenia), Gureje and colleagues found that a collaborative shared care delivered by traditional and faith healers and primary healthcare workers (PHCW) was feasible. The main component of the model was a collaborative working relationship between lay PHCWs, who had been trained to use the module on psychosis in the WHO Mental Health Gap Action Program–Intervention Guide (mhGAP-IG) and traditional healers who were based in the communities. At 6 months following entry into the study, patients in the collaboration arm had significantly greater symptomatic remission (PANSS total scores, adjusted MD = − 15, 95% CI = − 21.2, − 8.8), significantly less disability (WHO Disability Assessment Scale, adjusted MD = − 10.5, 95% CI = − 17.0, − 4.0), reduced self-stigma (Internalized stigma of mental illness scale adjusted MD = − 0.2, 95% CI = − 0.2, 0.0), shorter duration (in months) of admission (Adjusted MD = − 0.7, 95% CI = − 1.4, − 0.1), and better adjustment to life after discharge (Adjusted MD = 2.4, 95% CI = 1.1, 5.2) [44••]. In addition, collaboration between traditional healers and PHCW was found to be cost-effective in terms of total cost [44••].

Discussion

We have found in the present review that patients with schizophrenia make up a large proportion of people seeking traditional methods of mental healthcare, and a majority of the users perceive traditional medicine treatment as being effective. Adherence rates to traditional methods of mental treatment among users may be well over 80%. As encouraging as these findings are, there is nevertheless insufficient evidence to inform any recommendation that traditional medicine methods could be an effective approach to treating patients with schizophrenia. Evidence of the effectiveness of traditional therapies has been stronger in the context of their being used in conjunction with pharmacotherapy. Also, there is now empirical evidence that a collaborative working arrangement with biomedical practitioners is beneficial to patients with psychosis, both in terms of clinical and functional outcomes as well as in terms of cost-effectiveness.

An overview of recent meta-analyses suggests that current evidence for the effectiveness of traditional methods of mental healthcare in people with schizophrenia is low to moderate. However, the reviewed studies provide initial suggestions that aspects of traditional medicine treatments may lead to objective short-term improvements in global clinical state and lower incidence of extrapyramidal side effects. It is especially promising that some traditional Chinese medicines, especially when combined with antipsychotics, demonstrated measurable clinical effects in the context of negative symptoms of schizophrenia, including in cases that were refractory to clozapine [38•]. There is thus room for further research in this area, especially in disaggregating various components of known traditional medicine methods, examining the most effective elements, dosages, and duration of treatments in people with schizophrenia.

Recent naturalistic studies [42, 43•] suggest that many patients using traditional methods of mental healthcare do so concurrently with any biomedical treatments. Approximately 60% of users would consult traditional healers for their mental health conditions regardless of whether they were receiving effective biomedical treatments. It is also noteworthy that the 80% self-reported adherence to traditional methods of treatment [43•] is substantially higher than is often found for treatment retention rates among patients receiving biomedical mental health treatments [48]. These observations may suggest that traditional methods of mental healthcare confer certain therapeutic benefits that are perceptible to patients but are not objectively verifiable in standard experimental conditions. It is clear that the popularity of traditional methods of mental healthcare among the population is unlikely to be related solely to poor accessibility of biomedical service.

Evidence from the reviewed studies [43•] and others [24] in the literature suggests that other, possibly more important, reasons for use and adherence to traditional methods of mental healthcare are the shared beliefs among healers, patients, and their families about causation and treatments, as well as the status of the traditional providers in the community. Traditional healers are well-respected opinion leaders within their communities. They have long-term and continued relationships with individuals and their families and are often available to observe and respond to changes in social, psychological, and spiritual circumstances of their clientele [49]. Traditional healers also have appropriate communication skills and are able to probe into the perceived social, psychological, and spiritual origins of mental illnesses [27]. Many of these characteristics are also shared by biomedical mental health providers and could serve as a platform for collaboration between the two groups of providers. Such collaboration may serve to emphasise positive aspects of both sectors and minimise harmful practices as well as those that are not beneficial to patients. The resulting expansion of evidence-based care could potentially narrow the treatment gap for schizophrenia especially in settings, globally, where mental healthcare resources are limited.

The evidence from the cluster RCT by Gureje and colleagues [44••] is in keeping with some prior reports suggesting that, barring expressed concerns about 'copyrights' and delineation of boundaries of respective expertise [50, 51], traditional mental healthcare providers are mostly willing to collaborate with biomedical mental health service providers [52]. Traditional healers are known to be especially keen to integrate many aspects of biomedical mental healthcare into their own practices [53], and many have been reported to express willingness to receive

biomedical mental health training [53]. The suggestion from Gureje et al. (2020) is that minimal training of traditional healers, as well as monitoring them for safe ethical conducts, may lead to reduction in harmful practices.

The study by Gureje et al. (2020) provides the first empirical evidence on how to develop collaboration between traditional and biomedical methods of mental healthcare. The strategy, where lay primary care providers with basic mental health training made regular visits to neighbouring traditional healers' facilities to deliver treatments that are adjunctive to what the traditional healer provided, seems logical. It resulted in safer treatments and better outcomes in patients with psychosis (85% schizophrenia) and could constitute the initial steps in the direction towards attaining the longstanding global aspiration [25] for the integration of traditional healers into mainstream biomedical practice.

Conclusion

Access to effective biomedical treatment for schizophrenia is limited in many countries. Many patients with the disorder preferentially use traditional methods of mental healthcare, which though are perceived to be helpful, are sometimes associated with practices that are either not evidence based or harmful. Arising from these observations is a global policy aspiration to integrate traditional methods into mainstream healthcare for schizophrenia and other mental health conditions. This is so as to narrow the treatment gap for schizophrenia especially in settings, globally, where mental healthcare resources are limited. An initial collaborative working relationship that includes clinical support training and monitoring of traditional medicine providers led to safer treatments and improved outcomes in patients with schizophrenia. One important next step in the direction towards integration of traditional methods into mainstream biomedical care for people with schizophrenia could be the identification of the most effective and safe components from the eclectic pool of methods used in contemporary traditional medicine treatments for schizophrenia and related psychoses.

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