

TRADITIONAL AND ALTERNATIVE MEDICINE TREATMENTS IN CHILD AND ADOLESCENT MENTAL HEALTH

Nerissa L Soh, Garry Walter



Hua Shou. Expression of the fourteen meridians used in acupuncture (Tokyo, 1716). Source: Wikipedia Commons.

Nerissa L Soh B Med Sc, M Nutr Diet, PhD, APD.

Research Officer to the Chair of Child and Adolescent Psychiatry, Child and Adolescent Mental Health Services, Northern Sydney Local Health District, NSW, Australia.

Conflict of interest: None declared.

Garry Walter MD, PhD, FRANZCP

Professor of Child and Adolescent Psychiatry, Discipline of Psychiatry, University of Sydney, & Clinical Director, Child and Adolescent Mental Health Services, Northern Sydney and Central Coast Health Districts, NSW, Australia.

Conflict of interest: grant from Lundbeck to study psychiatric evaluation in primary care.

This publication is intended for professionals training or practicing in mental health and not for the general public. The opinions expressed are those of the authors and do not necessarily represent the views of the Editor or IACAPAP. This publication seeks to describe the best treatments and practices based on the scientific evidence available at the time of writing as evaluated by the authors and may change as a result of new research. Readers need to apply this knowledge to patients in accordance with the guidelines and laws of their country of practice. Some medications may not be available in some countries and readers should consult the specific drug information since not all dosages and unwanted effects are mentioned. Organizations, publications and websites are cited or linked to illustrate issues or as a source of further information. This does not mean that authors, the Editor or IACAPAP endorse their content or recommendations, which should be critically assessed by the reader. Websites may also change or cease to exist.

©IACAPAP 2012. This is an open-access publication under the [Creative Commons Attribution Non-commercial License](#). Use, distribution and reproduction in any medium are allowed without prior permission provided the original work is properly cited and the use is non-commercial. Send comments about this e-book or chapter to jmreyATbigpond.net.au

Suggested citation: Soh NL, Walter G. Traditional and alternative medicine treatments in child and adolescent mental health. In Rey JM (ed), *IACAPAP e-Textbook of Child and Adolescent Mental Health*. Geneva: International Association for Child and Adolescent Psychiatry and Allied Professions 2012.

Traditional medicine is defined by the World Health Organization (WHO) as “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” (p1) (World Health Organization, 2000). Traditional medicine spans a wide range of therapies, from herbal or medicinal treatments to physical and procedural treatments such as massage, acupuncture, yoga and spiritual and mind-body therapies. When traditional medicine is used in populations for which it is not indigenous—such as in a developed country—it becomes known as complementary and alternative medicine (CAM). In this chapter, we will use traditional medicine and CAM interchangeably and refer to Western conventional treatments, which have a scientific basis, as *orthodox* or *scientific medicine*.

COMPLEMENTARY AND ALTERNATIVE MEDICINE IN DEVELOPED COUNTRIES

HERBS, HYPNOSIS AND MUSIC THERAPY

CAM is popular with the general public in developed countries, although the level of scientific evidence for efficacy is at best modest. In the case of child and adolescent psychiatry, the evidence is particularly scarce, partly due to ethical concerns in conducting trials in this age group. In Western, developed societies, CAM used in treating child and adolescent psychiatric conditions include St Johns wort for depression, kava for anxiety, omega-3 fatty acids for attention deficit hyperactivity disorder (ADHD) and depression, elimination diets for autism and ADHD, and valerian and lemon balm for anxiety. The evidence or lack thereof for these treatments' efficacy has been reviewed and discussed elsewhere (Rey et al, 2011; Soh & Walter, 2008) and is summarised in Table J.2.1.

Additionally, homeopathy may be considered a herbal treatment. Homeopathic pharmacy uses serial dilutions of source materials with *succussion* (shaking) at each stage. Considering the resulting, extremely diluted solutions, there would not be any of the source substances remaining in the tincture or *decoctions* administered. Homeopathy has been used to treat ADHD, but a Cochrane review found “no evidence that homeopathy has a significant impact on the overall severity, core symptoms or related outcomes of children diagnosed with attention deficit hyperactivity disorder” (p12) (Heirs & Dean, 2009).

Hypnosis

Apart from herbal and medicinal CAM, there are also procedural CAM therapies used to treat psychiatric disorders. Music therapy and hypnosis are the better known examples in Western countries. In the case of hypnosis, Cochrane reviews found insufficient evidence to support its efficacy in the treatment of schizophrenia. Nevertheless, hypnosis does not appear to have adverse effects and some patients found that it provided short-term benefits. However, the studies reviewed were conducted in adults only and are quite old, being published in 1973, 1983 and 1980 (Izquierdo de Santiago & Khan, 2009). Hypnosis has been used to treat conversion disorder, in both inpatient and outpatient settings. There is weak evidence hypnosis may be more beneficial than harmful, but effects on social functioning, interpersonal relationships and quality of life, and long term efficacy, are not known (Ruddy & House, 2005).



Click on the picture to hear Simon Singh talk about alternative medicine.

“**Decoction** is a method of extraction, by boiling, of dissolved chemicals or herbal or plant material, which may include stems, roots, bark and rhizomes. Decoction involves first mashing, and then boiling in water to extract oils, volatile organic compounds, and other chemical substances.” (Wikipedia)



Click on the picture to hear Richard Dawkins talk about alternative medicine.

Table J.2.1. Summary of common herbal/medicinal complementary and alternative treatments used in developed countries for psychiatric conditions in children and adolescents (Rey et al, 2011; Soh & Walter, 2008)

Treatment	Indications	Administration/mechanism	Evidence of efficacy	Comments and adverse effects
St John's Wort (<i>Hypericum perforatum</i>)	<ul style="list-style-type: none"> • Depression • Anxiety • ADHD 	As an extract. Active compounds are thought to be hypericin and/or hyperforin	<ul style="list-style-type: none"> • Open label trials have indicated children with (mostly mild) depression improve significantly. More rigorous larger trials showed no significant benefit. • RCT in children and adolescents with ADHD found no difference between St John's Wort and placebo 	<ul style="list-style-type: none"> • Generally well tolerated by children • Potentiate serotonergic effects of selective serotonin reuptake inhibitors and triptans • Reduces anticonvulsive effects of carbamazepine and phenytoin • Reduces bronchodilator effects of theophylline • Interactions with many other drugs and medications, including non-psychotropic drugs (Rey et al, 2011) • Seizures from overdose
Omega-3 fatty acids	<ul style="list-style-type: none"> • Depression • ADHD • Bipolar disorder • Schizophrenia 	Long-chain omega-3 fatty acids (eicosapentaenoic and docosahexaenoic) improve cell membrane fluidity, are precursors to less-inflammatory cytokines, and may alter expression of neurotransmitter receptors. Children with ADHD have lower blood levels of long-chain omega-3s than children without ADHD	<ul style="list-style-type: none"> • Supplementation alters blood profiles of fatty acids • A few RCTs have been undertaken in children with depression or bipolar disorder, but used biologically active placebos. Modest improvements in those taking omega-3 supplements • RCT in youths at risk of psychotic disorder: those treated with omega-3 had significantly reduced symptoms and improved functioning compared with placebo 	<ul style="list-style-type: none"> • Generally well tolerated by children and safe even at high doses (Clayton et al, 2007) • Relatively mild side effects reported: • Gastrointestinal problems (e.g., diarrhoea) • Fishy breath or aftertaste • Skin rashes and urinary problems are rare (Joy et al, 2006; Montgomery & Richardson, 2008) • At high doses, can increase the risk of bleeding (Feucht & Patel, 2011). Care should be taken in patients with a pre-existing haematological condition (Clayton et al, 2007) • Concerns of heavy metal contaminants from marine sources of omega-3



COMMON ST. JOHN SWORT
Hypericum perforatum L.
ST. JOHN SWORT FAMILY

Table J.2.1 (cont.)				
Treatment	Indications	Administration/mechanism	Evidence of efficacy	Comments and adverse effects
Kava (<i>Piper methysticum</i>)	Anxiety	As an extract	<ul style="list-style-type: none"> In adults, RCTS showed kava reduced anxiety symptoms but other RCTS found no improvement 	<ul style="list-style-type: none"> Hepatotoxicity Not recommended for use in children
Valerian (<i>Valeriana officinalis</i>)	Anxiety	Valerian root extract combined with lemon balm leaf extract	<ul style="list-style-type: none"> In combination, low doses reduced state anxiety in healthy young adults, in a cross-over study Open-label study in children with restlessness and dyssomnia showed improvement in symptoms, but statistical tests of significance were not conducted (Müller & Klement, 2006) 	<ul style="list-style-type: none"> Inadequate evidence to recommend use in children
Lemon balm (<i>Melissa officinalis</i>)				
Elimination and exclusion diets	ADHD	Removal of dietary substances (mostly artificial flavours and colours, salicylates) which are associated with hyperactivity	<ul style="list-style-type: none"> Trials show conflicting results Some children may be sensitive to particular food chemicals and thus benefit from those chemicals being removed from their diets 	<ul style="list-style-type: none"> Artificial flavours and colours are nutritionally superfluous and can be removed from children's diets without nutritional detriment Depending on which foods or nutrients are removed, the restrictions of an elimination diet means a child can be put at risk of other nutritional deficiencies The diet can place a large burden on parents and children, in terms of time, lifestyle changes and finances Exclusion diets not recommended as standard treatment in autistic spectrum disorder (Millward et al, 2008)
	Autistic spectrum disorder	Removal of gluten and casein	<ul style="list-style-type: none"> Conflicting results from two studies assessed in Cochrane review (Millward et al, 2008) 	

Music therapy

For music therapy as a treatment for depression, a Cochrane review assessed five randomised controlled trials (RCTs), but there were distinct differences in the types of music therapy used. Only one study was conducted in adolescents and the rest were conducted in adults. Four of the five studies (including the one of adolescents) found that patients undergoing music therapy had fewer depressive symptoms compared to those given standard care (hospitalisation and medication), psychotherapy, or wait-list controls, while the fifth study found music therapy yielded no significant change in mental state when compared with standard care alone (Maratos et al, 2009). Overall, the studies were of low quality and had small sample sizes. Also, there was great heterogeneity in the delivery of music therapy, such as a structured program compared with a more passive and unstructured approach of simply listening to music. The reviewers concluded that music therapy has at least short term benefits in improving mood above those of standard care alone but it is still not clear whether music therapy is an effective treatment for depression. Another Cochrane review found music therapy could significantly improve both verbal and non-verbal communicative skills in children with autism spectrum disorder in the short term, although there was no significant improvement in behavioural problems when compared to placebo treatment (Gold et al, 2006). Only three studies met the criteria for inclusion in the review and all had very small sample sizes and it is not known whether improvements in communication skills were maintained in the long term. Gold and his colleagues cautioned that music therapy should be conducted by individuals who have academic and clinical training in this field

More recently, a quasi-randomised controlled trial of a two-week active music therapy program for patients during an acute psychotic episode was conducted as an adjunct to medication. This trial found significantly reduced Brief Psychiatric Rating Scale scores (total and subscale scores) in both treatment and control groups following the program, with the treatment group's scores significantly lower than that of the controls (Morgan et al, 2011). The difference in improvement was not sustained at follow-up, although both groups' scores decreased significantly over time. The length of hospital stay was reduced by two days in patients receiving music therapy, but this was not statistically significant.

TRADITIONAL MEDICINE IN THEIR COUNTRIES OF ORIGIN

In some Asian and African countries traditional medicine forms the primary mode of health care for 80% of the population (World Health Organization, 2008). The remainder of this chapter will focus on CAM and traditional treatments for paediatric psychiatric disorders from low income countries, particularly treatments which are not common in Western nations. It will also cover treatments for schizophrenia and bipolar disorder, illnesses which often begin in young people. The chapter will review evidence for their efficacy and will also note traditional treatments which, effective or not, a psychiatrist or other mental health professional working in such environments is likely to encounter. Often, a patient will have already used such treatments before seeing a psychiatrist and although much of the literature focuses on adults, children from such cultural backgrounds may well have been treated with the same remedies before presenting for clinical assessment. In many countries, traditional and scientific medicine often go hand in hand,

Music therapy is the planned and creative use of music to attain and maintain health. Music therapy focuses on meeting therapeutic aims, which distinguishes it from musical entertainment or music education. Music therapists seek to help patients improve their health across various domains (e.g., cognitive functioning, motor skills, emotional and affective development, behaviour and social skills, and quality of life) by using music experiences (a diverse range, e.g., singing, song-writing, listening to and discussing music, moving to music) to achieve treatment goals.

Table J.2.2. Summary of traditional treatments

Traditional treatment	Examples	Indications
Herbal medicine	<ul style="list-style-type: none"> Indian Ayurvedic Chinese Japanese 	<ul style="list-style-type: none"> Schizophrenia Bipolar disorder Tourette disorder Depression
Meditation	<ul style="list-style-type: none"> Concentrative Mindfulness 	<ul style="list-style-type: none"> ADHD Anxiety Depression
Trance		<ul style="list-style-type: none"> Both cause and treatment; illnesses not specified but includes spirits and deities as cause
Sorcery	<ul style="list-style-type: none"> Animal sacrifices Confessions Exorcism Purification ceremonies Herbal treatments Charms and markings Witchcraft 	<ul style="list-style-type: none"> Both cause and treatment; illnesses not specified but includes evil spirits as cause
Astrology	<ul style="list-style-type: none"> Astrologer recommends rituals as cure 	<ul style="list-style-type: none"> Planets' alignment as cause; illnesses not specified
Religious healing Shamanism	<ul style="list-style-type: none"> Faith healing (eg Koranic) Rituals and prayers Talismans and amulets Devil dancers Pilgrimages Exorcism Charms 	<ul style="list-style-type: none"> Includes evil spirits and demons as cause; illnesses not specified
Acupuncture		<ul style="list-style-type: none"> Depression Autistic spectrum disorder

with scientific medicine used to suppress symptoms and traditional medicine to restore the body to its natural balance. Some practices described in this chapter may be antiquated, but are included for historical purposes and because there may be pockets of traditional practice in those countries. These examples also serve to highlight some of the challenges associated with combining traditional and orthodox treatments, or transitioning from one form of treatment to another. Traditional beliefs or interpretations of psychiatric disorders are important to the psychiatrist who aims to provide culturally sensitive and acceptable therapy. The treatments reviewed are herbal medicines, meditation, trance, sorcery, religious healing and talismans, and acupuncture.

Rauwolfia serpentina

Rauwolfia serpentina is one of the fundamental herbs used in traditional Chinese medicine, where it has the name *shégēn mù* (Chinese: 蛇根木) or *yìndù shémù* (Chinese: 印度蛇木). It was also used in India for centuries to treat a variety of conditions. *Rauwolfia serpentina* contains several bioactive chemicals, including yohimbine, and reserpine. The alkaloid reserpine was introduced into Western medicine as an antipsychotic in 1954. Although effective, side effects lessened its popularity. The ability of reserpine to induce depression (now questioned) and deplete brain amines became one of the pillars of the monoamine theory of mood disorders.



A variety of materials, vegetable and animal, are used in traditional Chinese medicine. In this picture, *ling zhi* mushrooms, dried snake, turtle shells, *luo han guo* (a type of fruit) and ginseng.

HERBS

CHINESE, INDIAN AYURVEDA AND OTHER

Patients' use of herbal medicines as complementary or naturopathic treatments is familiar to clinicians in developed countries. Herbal medicines may be used in developing countries because they are more accessible and affordable than Western pharmaceuticals. Tradition and familiarity also play a role in their popularity. While it is likely a psychiatrist will find that patients from such backgrounds have used herbal treatments before presenting for assessment, this does not mean that the traditional medicines are (or are not) effective.

Depression

Sarai (1992) reviewed herbal medicines used in Japan, among them: *saiko-ka-ryukotu-borei-to* for anxiety and depression; *yokukan-san-ka-chinpi-hange* for agitated depression and nightmares; *choto-san* for headaches; and *hoch-ekki-to* for "exhausted depression". Each of these herbal medicines is a complex combination of herbs; a novel aspect of Sarai's paper is that the ingredients for each medicine are listed, including quantities and dosages. However, Sarai also noted no double-blind controlled trials were available to test for efficacy. Further, the studies cited were in vitro and animal studies and the mechanisms of the medicines are mostly unknown. Thus, efficacy in humans is unknown.

More recently, Akhondzadeh et al (2005) investigated the efficacy of *saffron* (dried stigmas of *Crocus sativus* flowers), a traditional Persian treatment for depression. A double-blind RCT in 40 adults with mild to moderate depression found those taking a capsule of 15 g dried saffron extract/day had significantly improved at six weeks and this improvement was significantly greater than that experienced by the placebo group. The participants were free of psychotropic medications for at least four weeks before the start of the study. Side effects reported were mild. This is the first clinical trial of saffron as a treatment for mild to moderate depression and the sample size is small. Thus, larger trials are required

and it is not known whether saffron would be effective in paediatric depression. Another, very practical issue is the cost of treatment as saffron is the most expensive spice in the world.

Schizophrenia

Traditional Chinese medicine

In China, traditional medicine, including herbal medicines, was the main treatment for psychiatric illnesses until the advent of antipsychotic medications. In the Cochrane review of Chinese herbal medicines, there was no evidence that herbs on their own were more effective than antipsychotic medications in treating schizophrenia, but there was a possibility of benefit by adding the herbs to an antipsychotic regimen (Rathbone et al, 2010). The herbal medications may also attenuate the adverse effects of antipsychotic drugs, such as constipation, thus promoting compliance. None of the seven RCTs reviewed trialled herbs against placebo, possibly because of ethical considerations. The studies were conducted in adults and used a range of herbal medicines: two different versions of *dang guicheng qi tang* (five or seven different herbs) with an additional 17 herbs used as needed for blood stagnation and hallucinations, restlessness and insomnia; *xiaoyao san* (a mixture of 10 herbs); *ginkgo biloba*; *xingshen* (containing seven herbs); or a combination of *Hirudo seu Whitmania* and the rhizoma of *Rheum palmatum*. When *ginkgo biloba* was combined with antipsychotic medication, it yielded greater improvement in schizophrenia patients' mental state compared with the combined results of the other herbal data, though the reviewers cautioned that trials were very small (Rathbone et al, 2010).

The studies assessed in the Cochrane review of Chinese herbal medicine for schizophrenia were published from 1987 to 2001. The quality of the studies was modest at best: not all studies provided the dosages for herbs or antipsychotic drugs and not all studies were double blind. Another issue noted by the reviewers is that only one of the studies followed the traditional Chinese medicine's "pattern differentiation", where patients were assigned to one of two herbal medicine regimens in line with traditional customizing of treatment to the individual (Rathbone et al, 2010). Nevertheless, the potential efficacy shown by this preliminary data indicates the need for better-quality and larger studies for these herbal medicines.

Another traditional Chinese herb for treating schizophrenia is *Huperzia serrata* (*qianceng ta*), which is also used for contusions, strains, swelling and myasthenia gravis (Ma et al, 2007). An active ingredient, HupA, a strong reversible inhibitor of acetylcholinesterase, was isolated from *H serrata* in 1986. Ma et al's 2007 review focused on HupA and its semi-synthetic analogues and their potential for the treatment of Alzheimer's disease to improve cognitive function. However, the review cites only one study related to schizophrenia, where HupA significantly improved memory function in patients with schizophrenia.

In conclusion, it is premature to recommend traditional Chinese herbs for the treatment of schizophrenia. For clinicians managing patients with a Chinese background, it is useful to be aware their patients may have used these herbal medications.

Ayurveda

Ayurvedic medicine (also called Ayurveda) is one of the world's oldest medical systems. It originated in India and has evolved there over more than 3,000 years. The term "Ayurveda" combines the Sanskrit words *ayur* (life) and *veda* (science or knowledge). Thus, Ayurveda means "the knowledge of life" (Agarwal et al, 2010). The aim of Ayurvedic medicine is to integrate and balance the body, mind and spirit. This balance is believed to lead to happiness and health, and to help prevent illness. Ayurvedic medicine also treats specific physical and mental health problems. A chief aim of Ayurvedic practices is to cleanse the body of substances that can cause disease, thus helping to re-establish harmony and balance.



Click on the picture to watch a lecture on Ayurveda (1 hour 28 minutes) by Sudah Prathikani MD, explaining the philosophy behind Ayurveda and some of the modern research into its efficacy.

Ayurvedic (Indian) medicine

Ayurvedic medicine, a traditional Indian medicine system, is similar in its philosophy to traditional Chinese medicine (Agarwal et al, 2010). A Cochrane review of three RCTs, all conducted in India, found weak support for one herbal medicine (*brahmyadiyoga*) being more effective in treating schizophrenia than placebo, but it does not appear to be more effective than chlorpromazine. *Brahmyadiyoga* was also associated with nausea and vomiting. The studies are old (one published in 1976 and two in 1992) and short term. An important general issue is the cost of treatment, as Ayurvedic treatments are cheaper and therefore more accessible to poor people than chlorpromazine, let alone the more recent atypical antipsychotics. Psychiatrists working with patients from Indian subcontinent backgrounds should be aware that their patients may have used such traditional treatments prior to presentation or may continue using them.

The above studies of Chinese and Indian herbal medicines were conducted in adults, and schizophrenia is less commonly diagnosed in children and younger adolescents. Thus, caution is warranted in extrapolating such preliminary results to the younger population. However, it is possible that paediatric patients had been administered such treatments before presenting and family members and carers expect to continue using herbal medicines to manage a patient, regardless of age.

Tourette's disorder

Tirodkar (2010) presented a case study of Ayurvedic medicine used to treat Tourette's disorder in a seven year old boy. The motivation of the patient's mother, who had searched the internet and read extensively about her child's condition, was her concern about the side effects of psychotropic drugs. Tirodkar reported that the Ayurvedic healer, instead of examining the child, asked the mother about her pregnancy and how it had progressed. The healer diagnosed "problem with the head/mind" and prescribed enemas, *shirodhara* treatment (where warm medicated oil, milk or water is poured onto a patient's forehead) and concentration exercises (meditation). Interestingly, this healer also recommended the child be moved to a school for the disabled if his behaviour became more problematic or he developed a more severe learning disability, and also that the child's sibling be provided with counselling, as he had become frustrated with helping to take care of the patient. However, whether the treatment was successful was not reported.

Borderline personality disorder (BPD)

While BPD is not generally diagnosed in adolescents, borderline features often emerge at this age. In the past decade, the Chinese herb combination *yi-gan san* has been used in Japan to treat behavioural and psychological symptoms in dementia. Recently, a 12 week open-label study investigated *yi-gan san* as a monotherapy in adults with BPD (Miyaoaka et al, 2008). At weeks 2 and 12, there were significant reductions in depression, anxiety, hostility, suspiciousness, suicidal thoughts, impulsive aggression, motor retardation, uncooperativeness, excitement and somatic symptoms, and significant improvement in overall functioning compared with baseline, but no significant differences between weeks 2 and 12. Side effects were mild and few. The study was single-blind (the observer and data collector were blinded to the treatment); the authors conceded a double blind study of *yi-gan san* could not be conducted as the herbal powder mixture had a distinctive taste and smell and an appropriate placebo could not be developed.

Toxic effects of a Chinese herbal medicine in children – when a herb is substituted

In 1993, the Centres for Disease Control (US) published a report of three cases of jin bu huan toxicity in children in Colorado, US (Horowitz et al, 1993). *Jin bu huan* is a Chinese herbal medicine used as an analgesic. In all three cases, the children (aged 13 months to 2 ½ years) presented with lethargy: two had low respiratory rates and were initially unresponsive. Analyses of the *jin bu huan* tablets showed they contained 36% levo-tetrahydropalmatine by weight. This substance is found in the plant genus *Stephania*, not *Polygala* (*Polygala* being the genus of the plant ingredient listed in the tablets' packaging). The children's reactions to the tablets were also consistent with those observed in animals exposed to levo-tetrahydropalmatine and suggests that a herb substitution had occurred. In one case, the child had ingested 60 of the tablets, prompting the authors to recommend child-proof packaging for herbal medicines.

This is the first trial of *yi-gan san* in patients with BPD and it is not yet appropriate to extrapolate the results to children and adolescents. However, *yi-gan san* was originally developed for restlessness and agitation in children in the 16th century and it is conceivable that paediatric patients from Far Eastern cultures may have received this treatment before presenting for psychiatric assessment.

Adverse effects of traditional herbal treatments

In terms of safety, caution is warranted for herbal medicines overall. That a herb has been used for centuries for religious or medicinal reasons does not necessarily mean it is safe, and apparent lack of toxicity in the short term does not guarantee the herb is not toxic with chronic use. Also, contaminants such as heavy metals, pesticides and herbicides, may be significant toxins in themselves (Gardiner & Kemper, 2000). Drug-herb interactions are also cause for concern. For example, *kava*, which is not recommended for paediatric use (Rey et al, 2011), may potentiate benzodiazepines, alcohol and central nervous system depressants, and *valerian* may potentiate sedatives and barbiturates (Gardiner & Kemper, 2000). Quality control of herbal medicines should also be considered, in that the quantity of active compounds may vary from dose to dose and according to the quality of the herbs used in their preparation. Thus, a dose of traditional herbal medicine may contain levels of active compounds too low to have an effect, or so high as to be toxic. There are situations where herbs within a prescribed mixture have been substituted with another which is toxic (see Box), or conventional pharmaceutical compounds have been included in a herbal medicine mixture (see Box) (Kenny et al, 2001). These concerns make it necessary for clinicians to ask patients and their families about the use of any herbal medicine. Patients will not necessarily disclose use and reasons for not doing so include fears their clinician will disapprove or not want to know about it (Walter & Rey, 1999), although a survey of Australian psychiatrists regarding St John's Wort shows this is not necessarily the case, and that very few psychiatrists would be dismissive of the information (Walter et al, 2000).

MEDITATION

Meditation is used in both religious and secular settings and may help achieve relaxation and an altered state of consciousness. The latter potentially has cognitive-behavioural benefits (Krisanaprakornkit et al, 2010b). Meditation can be divided into two types: *concentrative*, where attention is focused on an object and aims to achieve sustained attention and stillness of the mind, and *mindfulness*, where there is an open awareness to any thoughts and the practitioner aims to develop a sustained attentiveness without reacting to their thoughts or emotions (Krisanaprakornkit et al, 2010a).

Anxiety

A Cochrane review analysed two RCTs of meditation as a treatment for anxiety in adults and found only slightly supportive evidence for its efficacy, similar to that of relaxation therapy (Krisanaprakornkit et al, 2010b). The trials reviewed used active controls—i.e., receiving another therapy (a different type of meditation, biofeedback, or relaxation therapy). Participants also continued their anxiolytic medications. Both studies were conducted in the US and the reviewers were not able to identify any studies from India, China or Thailand which met their inclusion criteria. This is a potential bias as meditation techniques originated in the

Mindfulness: modernized meditation?

In recent decades, mindfulness-based therapies have become fashionable in developed Western countries. These include mindfulness-based stress reduction (developed in the late 1970s) for managing stress, mindfulness-based cognitive therapy for managing depression, dialectic behaviour therapy (which includes mindfulness as one of its elements) and acceptance commitment therapy. These therapies are based on Buddhism, yoga and meditation and generally focus on positive alternatives and non-judgemental acceptance of symptoms (Dryden & Still, 2006). Mindfulness-based therapies also attempt to utilize only the essence of meditation and remove the cultural, traditional and/or religious elements associated with it. Research into mindfulness-based therapies is still preliminary in children and adolescents, with small study samples and heterogeneous methodologies (Burke, 2010). Studies have investigated both clinical (e.g., ADHD, sleep disorders, anxiety) and non-clinical samples for the impact of mindfulness therapies on social skills, anxiety, attention, depression, sleep quality, substance use, aggression, behaviour, general mental health and academic performance. At this stage, research shows the therapies can be administered and are well accepted by children and adolescents, but their efficacy in this population is not yet known.

East and may be practised *more purely* in those countries. In summary, there is no evidence to show meditation is superior to medication or other psychotherapies. Meditation may be a useful adjunct to conventional treatments, but larger trials of better quality are required to show its effectiveness (Krisanaprakornkit et al, 2010b).

Attention deficit hyperactivity disorder (ADHD)

Another Cochrane review examined meditation as a treatment for ADHD. This assessed four RCTs in children but found the quality of the studies to be poor and there was insufficient evidence to recommend meditation in treating ADHD (Krisanaprakornkit et al, 2010a). Mind-based meditation did not produce outcomes different to that of drugs or standard therapy, although *Hatha yoga*, a physical-based form of meditation, showed some benefits, albeit inconsistently.

Adverse effects of meditation and compliance issues

Krisanaprakornkit et al (2010b) advised that those types of meditation which require physical effort, such as *Kundalini Yoga*, are not appropriate for patients who are not physically fit or who have cardiovascular or respiratory diseases; adverse side effects reported for this type of meditation include spontaneous pneumothorax from forced respiration. Also, lower chemosensitivity has been reported in Yoga practitioners, where they appear to have adapted to low arterial pH and high arterial carbon dioxide partial pressure. Krisanaprakornkit et al (2010b) warn that the risk/benefit profile of such an adaptation is not yet known. Other potential adverse effects of meditation include depersonalization and derealisation, and it may trigger a psychotic episode in patients who have an underlying psychotic condition. There is generally a dearth of information regarding adverse effects of meditation in children.

Effectiveness and potential adverse effects aside, meditation as an exercise or treatment requires considerable motivation and discipline, in the same manner that physical exercise routines do, which may be problematic in young people with anxiety or depression. Compliance concerns were highlighted by the high drop-out rates in the two studies of meditation and anxiety (Krisanaprakornkit et al, 2010b). However, for patients from some cultural backgrounds, meditation may already be a routine part of their lives, including in young people, such as in Thailand. In these settings, meditation is an accepted method of improving attention, temperament, discipline, character, morals and school performance, and is also used for religious reasons. In such environments, a psychiatrist can expect the patient to have already undertaken meditation before presenting for assessment and treatment. Interestingly, Kapur (1979) claims that in Ayurveda, the “mentally disturbed” (author’s term) are forbidden to practice Yoga, although Yoga is recommended to promote mental growth in the healthy person.

TRANCE AND SOCIALLY SANCTIONED DISORDERS

What is deemed a mental disorder in one culture may not be so in another. Cultural sanction of a mental illness influences how treatment is delivered, if required. This section looks at trance as a social phenomenon, as an illness and as a treatment.

Trance

Trance has a multitude of meanings, from stupor and daze to a sleep-like state usually characterized by partly suspended animation with diminished or absent sensory and motor activity. Trance is often described as a half-conscious state, between sleeping and waking, in which the ability to function voluntarily may be suspended and is associated with meditation, hypnosis, magic, and prayer. In spiritualism, trance is a temporary state in which a medium, with suspension of personal consciousness, is controlled by an intelligence from without and used as a means of communication, such as with the dead.

Trance in its social context and as a disorder

Trance may be socially acceptable or have a socially acceptable explanation in some cultures. This is partly reflected in a case reported by Suryani and Jensen (1992) in Bali, Indonesia, where 45 out of 215 school children experienced dissociative disorder *en masse*. According to Suryani and Jensen, trance is a normal part of the Balinese Hindu faith in the sense that it is expected to occur in association with ceremonies and dances. What was different in this case was that the children were going into trance outside of culturally acceptable scenarios and in turn this led to significant disruption of the school's functioning (see Box).

Suryani and Jensen elegantly state: "The psychiatrist can help patients recover from symptoms of mental disorder as defined by Western psychiatry but cannot provide patients with necessary direct treatment for problems or illness caused by cultural beliefs or the supernatural. *The latter are best treated by those persons responsible for them.*" (p312, our italics).

In this Balinese case, the people responsible were traditional healers and priests. Incorporating patients' cultural language and reference points when explaining and administering psychiatric treatment was also highlighted by Ahyi (1997) in Africa, describing treatment as "exorcising sorcery" with medication (see section on sorcery).

Trance as treatment

Trance can be a direct means of treatment. Skultans (1991) conducted fieldwork at a Mahanubhav healing temple in India in the 1980s. The female patients with mental illness who came to this temple as supplicants were usually recorded by the temple as either having *pida* (spiritual affliction) resulting from spirit possession, or *ved* (madness). Trance was associated with having *pida* but trancing also offered symptomatic relief to the patients. Also, female family members and caregivers of male patients at the temple would go into trance as a means of taking on the burden of the male patients' afflictions. In this scenario, trance is a means of redistributing the intensity of the illness. Skultans noted that no men were recorded as going into trance.

SORcery

A descriptive study in Liberia, a West African nation, showed that mental illness was traditionally believed to be caused by breaking taboos, offending ancestral spirits and deities, being possessed by spirits, being *bewitched* or having a curse applied by a witch doctor (*zoe*), or was inherited through the family (Hales, 1996). Some of the beliefs in Arab societies, where illness is due to devils, sorcery, *jinn* (demons), the evil eye or ill-wishing from others, also apply to South Saharan Africa. *Treatments* include confession to doing wrong (e.g., breaking taboos), animal sacrifices to deities and spirits, and paying fees and exorcism, usually through physically beating the patient. Traditional Arabs may also seek out traditional healers to exorcise *jinn* (Fakhr El-Islam, 2008). Other treatments include purification ceremonies and herbal treatments. Charms and markings are also used as prophylactics. Some inherited mental illnesses are deemed incurable and patients may be restrained or left to die (Hales, 1996).

Sorcery as a cause for illness

Adjido (1997) discussed the association between psychosomatic medicine and sorcery in Africa, describing sorcery as "one of the central mysteries of African

Adulteration of African herbal medicine with western pharmaceuticals

Synman et al (2005) presented two cases where African herbal medicine had been adulterated with Western pharmaceuticals: a five year old child was admitted to intensive care with seizures after consuming a traditional herbal infusion to treat seizures; and a 30 year old woman was admitted with a ruptured uterus following consumption of a herbal medicine to induce abortion. Analyses of the infusions showed trimethadione (a drug used to treat petit mal seizures), in the one taken by the five year old, and propofol (an anaesthetic) and diclofenac (a non-steroidal anti-inflammatory) in the herbal medicine consumed by the 30 year old. The herbs used in the infusions were unknown.

Numerous cases of adulteration of Chinese herbal medicines with orthodox pharmaceuticals have been previously reported and both Chinese and Ayurvedic herbal medicines have been subject to contamination with heavy metals (Feucht & Patel, 2011), but this is the first published report of adulteration of African herbal medicine with orthodox medications.

Incorporating traditional beliefs in a psychiatric treatment plan

Suryani and Jensen (1992) reported a case in Bali where school children were experiencing *trance en masse*, causing much community disruption. Attacks were occurring from once to 30 times a day and continued for seven months, with each episode spanning about 40 minutes.

Prior to Suryani's intervention, a traditional healer, a *balian*, had provided treatment with ceremonies and offerings to appease gods and spirits and to compensate for an inadvertently desecrated old and buried temple. One village individual was blamed for the afflictions and expelled from the community while some of the afflicted children were transferred to another school. These treatments did not yield improvements, with children at the new schools also experiencing attacks. There was an appearance of contagion and non-affected community members were afraid that they would have an episode.

In her treatment strategy, Suryani settled on a diagnosis of *kesurupan*, meaning possession, which was

understood by the Balinese, accepted as a normal part of life and also did not carry stigma. Community leaders, health, education and religious officials as well as psychiatrists were involved. A high priest acted as primary traditional healer, since the people believed the condition was due to supernatural forces as opposed to a disease. Another reason for selecting a traditional healer was because of logistical problems and inadequate psychiatric resources. A new temple in the correct orientation would be constructed (to replace a temple in the school grounds which was not correctly oriented according to the Hindu religion), school teachers were to teach traditional Hindu stories about benevolent spirits to reduce the children's anxiety, the village was closed to outsiders to reduce stress and fear from visitors (visitors and media were disturbing the normally isolated community and expected to witness episodes), and there was a back-up plan of individual psychotherapy. Within a month, *trance* episodes ceased and did not reoccur in the three years of follow-up.

life" (p266). It is difficult for outsiders to grasp and define sorcery due to the secrecy encapsulating sorcerers' societies and the social and cultural barriers surrounding sorcery enforced by the rest of African society. While not specifically focusing on psychiatric illnesses, Adjido noted sorcery's role in African society, the way it permeates African cultures and that sorcerers prefer children and adolescents with "psychosomatic personalities" as "victims" (the author's terms). In doing so, sorcerers are able to utilize the targets' suggestibility. Illness, through the lens of belief in witchcraft or sorcery, therefore results from an enemy's or spirit's attack, and cure is through exorcism. Adjido provided a case study of a 12 year old boy with psychosomatic symptoms who was successfully treated with psychotherapy and possibly magical rituals. The social history of this patient also revealed complex family issues preceding the psychosomatic symptoms and that ritual sacrifices had been conducted for his and his mother's protection before the patient presented for psychiatric treatment. Adjido describes "psychosomatic transfer" being used to destroy victims by exhausting them through "a micro-environment of suggestion-induced insecurity, source of a lethal anguish" (p277), leading to chronic illness or death.

Sorcery and its social role

Ahyi (1997) investigated the traditional models of mental illness in Benin, a West African country where the *Vodun* (Voodoo) religion has its roots. These models are considered applicable to a reasonably large proportion of Africa's population (Ahyi, 1997). Ahyi highlighted the difficulties reconciling Western orthodox and traditional African models of mental illness. This contrasts with Suryani and Jensen's (1992) experiences in Bali, where both traditional and Western models and treatments were successfully integrated in a treatment strategy. Ahyi states that in the African healing system it is understood that some facts should not be mentioned. Further, attributing the behaviours associated with mental illness (e.g., suicide attempts) to another person or spirit removes guilt from patients and their families. There are parallels to this in traditional Bedouin-Arab beliefs, where mental illness is attributed to external, supernatural causes and patients are less likely to believe the illness is their own fault (al-Krenawi & Graham, 1999).

Society's concealment allows protection for the guilty parties while they correct their behaviour. Also, if behaviours such as violence are attributed to a spirit, individuals may be seen as a vessel or medium through which spirits communicate instead of being viewed as criminals; that is, the individual is still accepted in society. Ahyi (1997) illustrated this with a Ghanaian cult, *Tigari*, where a hysterical crisis was interpreted as a visitation from the spirit world. Such a person is thus not viewed as having an episode of a mental illness or as a sick person, but instead as a spokesperson for a spirit or deity and is thus accepted in society. This in turn allows patients time to develop a new life for themselves. In a similar situation, Li and Phillips (1990) reported a case in rural China where a female patient with a tentative diagnosis of schizophrenia was believed by others in the community to be in communication with spirits. As a result, community members began to ask the patient to see their sick relatives, who they believed were affected by evil spirits. Such a scenario may hinder patients from seeking treatment, as neither patients nor their families or community see that there is a problem.

Using the concept of sorcery in orthodox treatment

In a transcript of a verbal discussion, Ahyi (1997), as a psychiatrist, described clinical cases where he had “exorcised sorcerers” with medication and where he successfully treated cases of witchcraft which he called “fake witchcraft”. In effect, Ahyi explained the conventional treatment within the patients’ cultural reference points. However, he acknowledges that to use such a construct is to concede there is *genuine witchcraft*, which he had yet to personally encounter. Furthermore, some patients come to see a Western trained psychiatrist because they relapse after consulting traditional healers. Ahyi also highlighted the importance of social support and the social network in such societies, which are important for the patient, beyond what medication alone can provide.

Adjido (1997) and Ahyi (1997) showed how mental illnesses are interpreted in African societies and suggested how psychiatrists working with patients with these cultural backgrounds may need to frame their discussions to engage these patients and thus provide culturally acceptable care. The traditional religious and supernatural beliefs in South Saharan Africa lead to a common sequence of help-seeking for mental disorders: traditional healer, then a church for prayers or faith healing, and then, if the symptoms become worse, to a hospital (Odejide et al, 1989). Association with traditional and religious care systems may continue after effective hospital treatment. Thus, for psychiatrists working with patients from these communities, it is likely the patients will already have sought treatment from traditional healers and religious bodies before presenting, and will continue to do so after receiving orthodox psychiatric care. Odejide and co-workers also advise there are cultural and social limitations to Western-style psychotherapy in Africa due to common beliefs in the supernatural and a tendency to attribute mental illnesses to an external cause (as inferred by Ahyi above). This parallels the attitudes of some traditional Arab patients, where patients expect psychiatrists to cure them, as opposed to taking an active role themselves, as cognitive and behavioural therapies require (Fakhr El-Islam, 2008).

Clinicians treating patients from these backgrounds should ask what the patient and their family believe is causing their problem and what they have already tried as treatment. For patients and carers who believe the condition is caused by sorcery, have tried sorcery as a treatment, or plan to continue with sorcery and related rituals, a clinician should note if any of the practices are likely to be

Amulets or talismans are objects believed to possess supernatural or magical powers. They are intended to bring good luck, protection or health to their owner.

detrimental to the patient. This is not merely in terms of physical or medical harm but also includes potential financial burden. Permitting sorcerous or other culturally sanctioned rituals to continue if they are not harmful, while continuing to monitor the patient, may help to build trust and rapport. Explaining orthodox psychiatric treatment within a patient's cultural reference points—as Ahyi has by treating “fake witchcraft” and “exorcising sorcery” with medication—may improve patients' compliance with treatment and help retain their carers' support. Further, it may be of little practical benefit to openly challenge patients' beliefs regarding sorcery and the supernatural when their family and the community they live in share the same beliefs.

RELIGIOUS HEALING, TALISMANS AND AMULETS

There is overlap across sorcery, religious and spiritual causes for mental illness and their use in treatment. Talismans and amulets are often used in conjunction with sorcery and religious healing. While it is beyond the bounds of this chapter to delve in depth into the various philosophies which underpin some traditional beliefs about mental illness and how they should be managed, it is useful for clinicians to be aware of them as they may influence how patients describe and view their malady.



Example of an amulet which is supposed to protect against the evil eye.

Traditional Tibetan concepts of mental illness and religious healing

In traditional Tibetan medicine, mental illness is often described as an imbalance or disturbance of the *wind humour* or as a *wind humour illness*, with particular reference to the *life-bearing wind*. The term *srogrlung* may describe depressive or anxiety symptoms and may also include episodes of panic and psychosis (Jacobson, 2007; Millard, 2007). Jacobson (2007) translates *srogrlung* as the equivalent of “highly somaticised comorbid depression and generalised anxiety” (p236). Thus, an individual may report having *high wind*, meaning greater stress, exhaustion, hardship or irritability. There is also stigma attached to *srogrlung*, and some patients will therefore deny having the condition. Mental illnesses may also be attributed to *harmful spirits* or *gnod pa* (Millard, 2007), in which case the emphasis is on supernatural origins and reflects Tibetan religious beliefs. Millard observed that whether patients, their carers and community endorsed one etiology over another reflected socio-cultural differences across the Tibetan diaspora. Herbal medicines were prescribed to treat *srogrlung* while *gnod pa* illnesses would be confirmed by divination and treated by lamas or local healers (*jhānkri*). Millard reported such treatments included rituals and prayers to appease the spirits and fastening *blessed cords* (cords blessed by lamas) about a patient's fingers to seal a spirit inside the patient in order to communicate with it and thus discover the reasons for it attacking the patient. In his interview with a doctor practising traditional Tibetan medicine, the doctor—who worked in a clinic in the UK—described that an individual “becoming possessed by an emotion or a negative mode of thinking could be likened to [having] spirit possession”, but religious rituals were not essential to treat such conditions. Instead, balance could be returned through medicine and future *possession* averted (p280).

Indian subcontinent: Spiritual and astrological causes

Indian Ayurvedic medicine, practiced by *Vaids* (a class of priests), not only involves herbs but also spans spiritual or supernatural causes and treatments for mental illness. Astrology is also involved. An old observational study described *Unmada* (mental illness) as being caused by heightened activity of any of the three humors or by noxious foods and the resulting imbalance of heat and cold, or sexual overindulgence (Kapur, 1979). Mental illness may also be caused by evil spirits (*Pischachis*) possessing the patient (Kapur, 1979). Traditional healers (*Mantarwadis* and *Patriis*), whose roles extended beyond healing to include other duties such as appealing to rain deities in times of drought or flood and locating lost cattle, treat mental illness on the basis that the ailment is a divine punishment for the patient's misdeeds, either in the present or a past life. The punishment is carried out by spirits or by an unfavourable astrological alignment. Treatment may involve penance, a pilgrimage to a shrine, talismans and a monetary fee. A *Patri* acts as a medium for spirits and demons and treats a patient by going into a trance and being possessed by a master demon. In this situation, treatment involves the *Patri's* demon either exorcising the patient's demon, or asking the patient's demon what it requires to leave the patient. The latter may be a ritual feast, an animal sacrifice or a dwelling for the demon's use (Kapur, 1979). Kapur reported that the villagers he observed patronised both Western-trained doctors and traditional healers simultaneously and had observed both modern doctors and *Mantarwadi* conducting their rituals together at a patient's bedside. Religious treatment in India may be conducted alone or with a guru and may take the form of religious lectures, praying, bathing, fasting and religious rituals (Bagadia et al, 1979). Thus, various shrines and religious centres have evolved therapeutic programs (rituals and lifestyles) where patients (or pilgrims) seek religious help for their maladies. When a mental illness is deemed to be due to the planets, an astrologer will recommend rituals as treatment (Bagadia et al, 1979) (see section on trance).



JD Challenger: Wisdom of the Shaman.
Source: <http://www.firstpeople.us/>

In Sri Lanka, *aduras* (devil-dancers) were a popular choice of healer for mental illnesses in some rural areas (Wolffers, 1988), with orthodox medical treatment and Ayurveda being patronised much less frequently. *Aduras* use a number of treatments, including ceremonies and fastening strings around the patient's arm or neck, and if this does not yield results, a publicly conducted exorcism may follow. Western-style treatment would then be used if treatment by an *adura* fails.

Far East: China, Taiwan and shamanism

In the Far East, the combination of religion, shamanism and the supernatural is accepted and an individual or a community will not necessarily adhere to one dogma over another in their concepts of mental illness. Harrell (1991) reported the case of a 16 year old female patient who presented with psychoses in rural Taiwan in the 1970s, where he detailed a large mixture of folk or traditional treatments as well as explanations for the girl's illness. Diagnoses were made by spirit mediums or Taoist fortune tellers and included the patient having lost her soul, being attacked by ghosts, living in a haunted dwelling, her grandfather's failure to produce a direct male descendant, something being

wrong with her spirit or character, and bad luck. Treatments included writing of charms on spirit money or paper which were then eaten, used to make infusions for drinking or bathing in, or hung in various parts of the girl's dwelling, placating ghosts and ancestral spirits with ritualistic food offerings and burning of spirit money and incense. In this case, orthodox medicine was only used to provide a sedative. Harrell observed that the community this patient lived in did not consider that there was only one cause or diagnosis for her condition and accepted all offered explanations, including retrospective ones, whereupon the cause of the illness was decided on the basis of which treatment (temporarily) succeeded.

Li and Phillips (1990) reported on witch doctors (shamans) and mental illness in mainland China, particularly among the rural peasant population. They located 14 witch doctors in two communities in LiChang county from 1984-5, who were all peasants themselves (10 were illiterate or semi-literate) and none of whom had training in Western or Chinese medicine, psychology or religion. Their methods for treating illnesses were shamanistic and ritualistic, with a blend of Taoism, Buddhism and animistic beliefs. The case studies presented showed treatment rituals similar to those described by Harrell in Taiwan. Li and Phillips reported that 70% of patients in their Hubei psychiatric hospital surveyed admitted to consulting witch doctors before presenting to their outpatient clinic. Li and Phillips also noted that some rural patients never present for Western psychiatric treatment and only used traditional folk healers (witch doctors).

North Africa and the Middle-East: Spirits, demons and fortune-tellers

In Egypt, a culture-bound condition, Egyptian women's disease, is treated with *Zar* cult ceremonies. The illness parallels hysteria in Western medicine, but is believed to be due to possession by a spirit. The ceremonies, which include music, slaughter of a sheep, dancers and the female patient going into trance, allow the traditional healer to communicate with the spirit, find out its demands and to pacify it (el-Sendiony, 1974). However, this anthropological study is quite old and thus it is not clear how widespread this women's disease is today, nor how commonly the *Zar* cult ceremonies are performed.

In Bedouin-Arab culture, both traditional and Western health practitioners are patronised. Traditional healers in Bedouin-Arab culture include: *Dervish* healers, who treat mental illnesses with religious and cultural rituals, including exorcism; amulet writers who produce amulets to ward off evil spirits; fortune-tellers, who predict the future or diagnose by reading the dregs in patients' coffee cups; and Koranic healers, men who treat patients who have been attacked by evil spirits by using religious principles based on the Koran (al-Krenawi & Graham, 1999). The *Dervishes* may themselves have had psychiatric illnesses, in that a previous mental breakdown is viewed as a "blessing gift from God" (p224). There are some gender and social differences in how patients perceive the cause of their illnesses with women citing sorcery and spirits as the cause, educated men citing divine will-and-punishment (religious) causes and less educated men citing spirits. The *evil eye* (being the subject of another person's envy) is also reported as a cause of mental health problems in

Dervish

Dervishes are individuals who follow a Sufi Muslim ascetic path or tariqah and are known for their extreme poverty and austerity, similar to the Christian mendicant friars or Hindu sadhus.



Ginkgo biloba

many cultures. Further, as a result of the social environment they inhabit, women use sorcery as their means of coping with psychiatric problems. Al-Krenawi and Graham highlighted the difficulties Western-trained psychiatrists may face in accurately diagnosing patients from such backgrounds, because patients use proverbs, similes and metaphors to describe their symptoms and emotions. These descriptions are understood by traditional healers, who have the same cultural experience and language, but could be very difficult for clinicians from other backgrounds to interpret. For example, Al-Krenawi and Graham quote female patients describing despair and hopelessness as “my eyes are blind and my hand is shorter” (p232).

Clinical importance of religious healing

The above scenarios illustrate not only the traditional treatments patients and their families or communities may seek for mental illness, but also how people view, describe or interpret a mental illness through their cultural lens. As in the case of sorcery, being able to engage patients and families within their cultural reference points is important for psychiatrists working with patients from these backgrounds.

ACUPUNCTURE

Acupuncture—a traditional treatment in the Far East (China, Japan)—has become popular worldwide. In acupuncture, fine needles are inserted into different points on the body to correct energy imbalances. A 2009 survey in Hong Kong found that 40% of children with autistic spectrum disorder reported previously using CAM, with acupuncture being the most popular CAM treatment (Cheuk-Daniel et al, 2009). A Cochrane review of acupuncture as treatment for depression in adults is available and assessed seven trials but found insufficient evidence to support its effectiveness (Smith & Hay, 2004). Aside from mental disorders, acupuncture is used in numerous conditions including the management of nausea and vomiting, chronic asthma, epilepsy, migraine, pain, substance abuse and insomnia.

By clicking on the title, interested persons may read the WHO's reports:

[Regulatory Situation of Herbal Medicines: A worldwide Review](#)

and

[Legal Status of Traditional Medicine and Complementary/Alternative Medicine: A Worldwide Review.](#)

Table J.2.3. Managing young patients and their families using or planning to use traditional medicines

- When taking a medical history, ask and record current and past use of traditional treatments.
- Note what the patient and family believe is causing the child's illness. This may provide information on the patient's and family's cultural reference points when psychiatric treatment is explained and administered.
- Ask if the family intends for the child to continue taking traditional treatments or whether they plan to commence using traditional treatments.
- Do not dismiss the use of traditional medicines lightly. Allowing patients to continue their traditional treatments (if harmless) encourage compliance. Also, because of the belief systems associated with some traditional treatments, the use of traditional therapies can lessen the stigma of the illness and allow patients and families to continue functioning in their community.
- Balance the above openness to consider traditional treatment with concerns about the interactions of herbal medicines with prescription medications, their safety, efficacy and potential burdens (including financial and time-related).
- Safety concerns are not exclusive to herbal medicines but extend to non-biological physical therapies as well. The importance of using properly sterilized needles in acupuncture, and potential injury by the more physically demanding types of meditation, are examples.

Severe, life-threatening or fatal events due to complementary and alternative medicine in children

In Lim et al's (2011) Australian survey of paediatricians, 29 CAM-associated adverse events were reported in a 36 month period (2001-3). Four resulted in death due to CAM treatments being used in place of orthodox medicine: one case of pulmonary embolism (anticoagulants should have been used); two cases of malnutrition leading to sepsis and death due to dietary restrictions and homeopathy; and seizures and death because anticonvulsants were not used. Other serious adverse events from substituting orthodox treatments with CAM included delayed management of severe cerebral palsy, undiagnosed urinary tract infections, and hyperglycaemia because the insulin dose had been reduced and diabetes was treated with naturopathy.

Adverse effects directly due to the use of CAM in children included argyria from administering colloidal silver, acute hepatitis and liver failure from multiple herbal treatments and minerals which subsequently required a liver transplant, mouth ulcers from homeopathic medicines, hypercalcaemia from oral and intravenous calcium, acidosis from crushed pearls and bleeding due to ginkgo and ginseng.

Adverse effects of acupuncture

Though uncommon, acupuncture can have adverse effects, such as headaches, palpitations, sleep disturbance, tiredness and dryness of mouth (Smith & Hay, 2004). Rare side effects include pneumothorax, cardiac tamponade, direct injuries to the spinal cord, injuries resulting from migration of broken needles, bleeding, local skin infections, and infections from improperly sterilized needles—such as hepatitis, HIV, sub-acute bacterial endocarditis, staphylococcal septicaemia and mycobacteriosis. Apart from adverse effects, conducting acupuncture in children is complicated by children's acceptance. Children often have a fear of needles and do not retain needles for as long as adults, reducing treatment duration (Jindal et al, 2008). For children under 6 years old, shorter needles are often substituted for the conventional longer ones.

LEGAL STATUS AND REGULATORY ISSUES

The regulation and legal status of traditional and complementary medicine varies widely from country to country. For example, in Germany, herbal medicines have the same legal status as all other medicines while in the US, herbal medicines were mainly regulated as foods and, more recently (as of 1994), as dietary supplements (World Health Organization, 1998). In other countries, traditional medicines may be completely unregulated in terms of source, manufacturing, quality control, dispensation and who is permitted to administer treatments, including procedural treatments such as acupuncture. Moreover, even in countries where herbal medicines are regulated, the standards to which they are held are usually lower than conventional or orthodox medicines. Thus, *regulation* does not automatically imply efficacy and safety (Rey et al, 2011). Where regulations and laws exist, these can also vary from region to region within one country (World Health Organization, 2001).

Regulation of traditional medicines, or the lack of it, also means that access can be much easier than for orthodox medicines. For example, in Australia, minors have been able to purchase St John's wort over the counter (Walter & Rey, 1999), implying they may even self-administer herbal medicines without their carers' knowledge.

RESOURCES

Click on the picture to access MedlinePlus: Drugs, Supplements and Herbal Information (also available in Spanish).



Click on the picture to access the World Health Organization website and publications on traditional, complementary and herbal medicine.



OVERALL RISKS AND ADVERSE EFFECTS

Apart from the risks and adverse effects detailed above for individual therapies, there is also the risk to children's health if conventional medicine or treatments are substituted with traditional treatments or CAM. Lim et al's survey (2011) highlighted these risks. Treatments involving dietary restrictions can lead to severe malnutrition and this risk is greatest for infants and children with chronic conditions.

CONCLUSION

There is a vast range of traditional treatments available and this chapter has covered only a selection of them. Currently, there is insufficient empirical evidence to support the efficacy of traditional treatments as a sole therapy for mental illnesses. Few, if any, traditional medicines or therapies, can be confidently endorsed by mental health professionals as *stand-alone* treatments for children and young people. However, many patients and their families may have already used various traditional remedies before presenting for assessment or intend to continue using them. Health professionals need to be alert to and observant of any traditional treatments a patient may use. A mental health professional working with such patients will need to balance the potential risks of traditional treatments (including interactions with orthodox medications, physical injury from some procedures and financial costs) with sensitivity to cultural beliefs, patients and their family's social standing and reputation and their beliefs about the patient's illness. Clinicians should also be aware that allowing a patient to continue with a traditional treatment which does not interfere with prescribed orthodox therapies, together with regular and close monitoring, may enhance compliance to therapy overall.

REFERENCES

- Adjido CT. Links Between Psychosomatic Medicine and Sorcery. In Hountondji P (eds). *Endogenous Knowledge: Research Trails* 1st edn. Senegal: CODESRIA 1997:265-278.
- Agarwal V, Abhijnhan A, Raviraj P. Ayurvedic medicine for schizophrenia. *Cochrane Database of Systematic Reviews*, 2010; 3.
- Ahyi GR. Traditional Models of Mental Health and Illness in Benin. In Hountondji P (eds). *Endogenous Knowledge Research Trails* 1st edn. Senegal: CODESRIA 1997:217-246.
- Akhondzadeh S, Tahmacebi-Pour N, Noorbala AA *et al*. Crocus sativus L. in the treatment of mild to moderate depression: a double-blind, randomized and placebo-controlled trial. *Phytotherapy research : PTR*, 2005; 19: 148-151.
- al-Krenawi A, Graham JR. Gender and biomedical/traditional mental health utilization among the Bedouin-Arabs of the Negev. *Culture, Medicine & Psychiatry*, 1999; 23: 219-243.
- Bagadia VN, Shah LP, Pradhan PV *et al*. Treatment of mental disorders in India. *Progress in Neuro-Psychopharmacology*, 1979; 3: 109-118.
- Bloch MH, Qawasmii A. Omega-3 Fatty Acid Supplementation for the Treatment of Children With Attention-Deficit/Hyperactivity Disorder Symptomatology: Systematic Review and Meta-Analysis. *Journal of the American Academy of Child & Adolescent Psychiatry*, 2011; In Press, Corrected Proof.
- Burke CA. Mindfulness-based approaches with children and adolescents: A preliminary review of current research in an emergent field. *Journal of Child and Family Studies*, 2010; 19: 133-144.
- Cheuk-Daniel KL, Wong V, Chen W, X. Acupuncture for autistic spectrum disorder. *Cochrane Database of Systematic Reviews*, 2009; 2.
- Clayton EH, Hanstock TL, Garg ML *et al*. Long chain omega-3 polyunsaturated fatty acids in the treatment of psychiatric illnesses in children and adolescents. *Acta Neuropsychiatrica*, 2007; 19: 92-103.
- Dryden W, Still A. Historical aspects of mindfulness and self-acceptance in psychotherapy. *Journal of Rational-Emotive & Cognitive Behavior Therapy*, 2006; 24: 3-28.
- el-Sendiony MF. The problem of cultural specificity of mental illness: the Egyptian mental disease and the Zar ceremony. *Australian & New Zealand Journal of Psychiatry*, 1974; 8: 103-107.
- Fakhr El-Islam M. Arab culture and mental health care. *Transcultural Psychiatry*, 2008; 45: 671-682.
- Feucht C, Patel DR. Herbal medicines in pediatric neuropsychiatry. *Pediatric Clinics of North America*, 2011; 58: 33-54.
- Gardiner P, Kemper KJ. Herbs in Pediatric and Adolescent Medicine. *Pediatrics in Review*, 2000; 21: 44-57.
- Gold C, Wigram T, Elephant C. Music therapy for autistic spectrum disorder. *Cochrane Database of Systematic Reviews*, 2006; 2.

- Hales A. West African beliefs about mental illness. *Perspectives in Psychiatric Care*, 1996; 32: 23-29.
- Harrell S. Pluralism, performance and meaning in Taiwanese healing: a case study. *Culture, Medicine & Psychiatry*, 1991; 15: 45-68.
- Heirs M, Dean ME. Homeopathy for attention deficit/hyperactivity disorder or hyperkinetic disorder. *Cochrane Database of Systematic Reviews*, 2009; 1.
- Horowitz RS, Dart RC, Gomez H *et al*. Epidemiologic Notes and Reports Jin Bu Huan Toxicity in Children -- Colorado, 1993. *Morbidity and Mortality Weekly Report*, 1993; 42: 633-636.
- Izquierdo de Santiago A, Khan M. Hypnosis for schizophrenia. *Cochrane Database of Systematic Reviews*, 2009; 4.
- Jacobson E. "Life-Wind Illness" in Tibetan Medicine: Depression, Generalised Anxiety, and Panic Attack. In Schrepf M (eds). *Soundings in Tibetan Medicine: Anthropological and Historical Perspectives*. Leiden: Koninklijke Brill NV 2007:225-245.
- Jindal V, Ge A, Mansky PJ. Safety and efficacy of acupuncture in children: a review of the evidence. *Journal of Pediatric Hematology/Oncology*, 2008; 30: 431-442.
- Joy CB, Mumby-Croft R, Joy LA. Polyunsaturated fatty acid supplementation for schizophrenia. *Cochrane Database of Systematic Reviews*, 2006.
- Kapur RL. The role of traditional healers in mental health care in rural India. *Social Science & Medicine - Medical Anthropology*, 1979; 13: 27-31.
- Kenny E, Muskin PR, Brown R *et al*. What the general psychiatrist should know about herbal medicine. *Current Psychiatry Reports*, 2001; 3: 226-234.
- Krisanaprakornkit T, Ngamjarus C, Witoonchart C *et al*. Meditation therapies for attention-deficit/hyperactivity disorder (ADHD). *Cochrane Database of Systematic Reviews*, 2010a; 6.
- Krisanaprakornkit T, Sriraj W, Piyavhatkul N *et al*. Meditation therapy for anxiety disorders. *Cochrane Database of Systematic Reviews*, 2010b; 2.
- Li SX, Phillips MR. Witch doctors and mental illness in mainland China: a preliminary study. *American Journal of Psychiatry*, 1990; 147: 221-224.
- Lim A, Cranswick N, South M. Adverse events associated with the use of complementary and alternative medicine in children. *Archives of Disease in Childhood*, 2011; 96: 297-300.
- Ma X, Tan C, Zhu D *et al*. Huperzine A from Huperzia species--an ethnopharmacological review. *Journal of Ethnopharmacology*, 2007; 113: 15-34.
- Maratos A, Gold C, Wang X *et al*. Music therapy for depression. *Cochrane Database of Systematic Reviews*, 2009; 1.
- Millard C. Tibetan Medicine and the Classification and Treatment of Mental Illness. In Schrepf M (eds). *Soundings in Tibetan Medicine: Anthropological and Historical Perspectives*. Leiden: Koninklijke Brill NV 2007:247-2283.
- Millward C, Ferriter M, Calver SJ *et al*. Gluten- and casein-free diets for autistic spectrum disorder. *Cochrane Database of Systemic Reviews*, 2008; 2.
- Miyaoka T, Furuya M, Yasuda H *et al*. Yi-gan san for the treatment of borderline personality disorder: An open-label study. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 2008; 32: 150-154.
- Montgomery P, Richardson AJ. Omega-3 fatty acids for bipolar disorder. *Cochrane Database of Systematic Reviews*, 2008; 2.
- Morgan K, Bartrop R, Telfer J *et al*. A controlled trial investigating the effect of music therapy during an acute psychotic episode. *Acta Psychiatrica Scandinavica*, 2011.
- Müller SF, Klement S. A combination of valerian and lemon balm is effective in the treatment of restlessness and dyssomnia in children. *Phytomedicine*, 2006; 13: 383-387.
- Odejide AO, Oyewunmi LK, Ohaeri JU. Psychiatry in Africa: an overview. *American Journal of Psychiatry*, 1989; 146: 708-716.
- Rathbone J, Zhang L, Zhang M *et al*. Chinese herbal medicine for schizophrenia. *Cochrane Database of Systematic Reviews*, 2010; 11.
- Rey JM, Walter G, Soh N. Complementary and Alternative Medicine in Pediatric Psychopharmacology. In Martin A *et al* (eds). *Pediatric Psychopharmacology: Principles and Practice* 2nd edn. New York: Oxford University Press 2011:353-362.
- Ruddy R, House A. Psychosocial interventions for conversion disorder. *Cochrane Database of Systematic Reviews*, 2005; 4.
- Sarai K. Oriental medicine as therapy for resistant depression: use of some herbal drugs in the far east (Japan). *Progress in Neuro-Psychopharmacology & Biological Psychiatry*, 1992; 16: 171-180.
- Skultans V. Women and affliction in Maharashtra: a hydraulic model of health and illness. *Culture, Medicine & Psychiatry*, 1991; 15: 321-359.
- Smith CA, Hay PPJ. Acupuncture for depression. *Cochrane Database of Systematic Reviews*, 2004; 3.
- Snyman T, Stewart MJ, Grove A *et al*. Adulteration of South African traditional herbal remedies. *Therapeutic Drug Monitoring*, 2005; 27: 86-89.
- Soh NL, Walter G. Complementary medicine for psychiatric disorders in children and adolescents. *Current Opinion in Psychiatry*, 2008; 21: 350-355.
- Suryani LK, Jensen GD. Psychiatrist, traditional healer and culture integrated in clinical practice in Bali. *Medical Anthropology*, 1992; 13: 301-314.
- Tirodkar M. Tourette syndrome in Indian Ayurvedic medical practice. *Journal of Developmental & Behavioral Pediatrics*, 2010; 31: 173-174.

- Walter G, Rey JM. Use of St. John's Wort by adolescents with a psychiatric disorder. *Journal of Child & Adolescent Psychopharmacology*, 1999; 9: 307-311.
- Walter G, Rey JM, Harding A. Psychiatrists' experience and views regarding St John's Wort and 'alternative' treatments. *Australian and New Zealand Journal of Psychiatry*, 2000; 34: 992-996.
- Wolffers I. Illness behaviour in Sri Lanka: results of a survey in two Sinhalese communities. *Social Science & Medicine*, 1988; 27: 545-552.
- World Health Organization. Regulatory Situation of Herbal Medicines: A Worldwide Review. 1998; WHO/TRM/98.01: 1-45.
- World Health Organization. General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine. 2000; WHO/EDM/TRM/2000.1: 1-74.
- World Health Organization. Legal Status of Traditional Medicine and Complementary/Alternative Medicine: A Worldwide Review. 2001; 1-89.
- World Health Organization. *Fact Sheet No 134 Traditional medicine (updated) Dec 2008.*
-