Complementary and Alternative Medicine (CAM) as Treatments for Psychiatric Disorders: A Guide for Mental Health Professionals

Izaida Ibrahim

School of Behavioral Sciences Faculty California Southern University, Costa Mesa, California

Corresponding e-mail: izaidaibrahim@gmail.com

Given the increased popularity and use of Complementary and Alternative Medicine (CAM) in the treatment of psychiatric disorders, it is crucial for mental health professionals to be informed about this treatment approach. Accordingly, this paper critically reviews the pro and con arguments for the use of CAM treatment modalities in the treatment of psychiatric disorders. Given that there are potential dangers in adopting the CAM approach without appropriate supervision, it begs the question of what roles and responsibilities mental health professionals have in the matter. Thus, this article proceeds to address the roles and the recommended strategies for mental health professionals when working with patients or clients who use CAM for their treatment of psychopathological issues. Finally, it goes further to discuss the practice of integrating both conventional treatment and CAM to treat mental disorders and issues associated with such disorders. Importantly, this article highlights the need for knowledgeable, confident, and trained mental health professionals to provide patient counselling about the complementary and alternative approach.

Keywords: complementary, alternative, treatment, psychiatry, mental health professionals

Utilization of Complementary and Alternative Medicine (CAM) for mental health problems and psychiatric disorders among clients has sparked debate regarding the approach. According to Ventola (2010a), CAM has been defined as "a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of medicine." conventional The term "complementary" indicates that the CAM approach is used together with conventional medicine. whereas "alternative" is a term used to describe medical therapies used in place of conventional medicine.

Conventional medicine refers to the standard empirical evidence-based psychological pharmacological and interventions to treat psychiatric disorders and related symptoms. The use of psychotropic drugs, medical and surgical interventions, conventional psychotherapies, biopsychosocial and interventions to manage and treat mental health problems, practiced by medical and healthcare professionals, allied are therefore considered as conventional.

CAM can include but is not limited to (a) alternative whole medical systems (homeopathic and naturopathic, Chinese, and Ayurvedic medicine); (b) mind-body and spiritual interventions (meditation, prayer, mental healing, and art, music, and dance therapy); (c) biologically-based therapies (herbs, foods, vitamins, and other dietary supplements or nutraceuticals including natural products such as shark cartilage); (d) manipulative and bodybased methods (chiropractic and osteopathic manipulation, massage); and (e) energy therapies (qi gong, Reiki, therapeutic touch, and electromagnetic field exposure).

This article aims to highlight some of the general arguments for and against CAM treatments for psychiatric disorders. Then, it will discuss the roles that therapists/clinicians can play to encourage patients to make an informed decision about their use of CAM. Several strategies for therapists/clinicians to consider in their work with such clients are outlined. The move towards an integrative practice model is discussed in the final part of the article.

The use of CAM

There is a considerable level of CAM use among both general and clinical populations of people suffering from mental health disorders. Across the world, the prevalence and patterns of use are varied, but frequently, the use of CAM approaches involves self-diagnosis and self-treatment (Pilkington, 2018). According to Kessler et al., (2001), studies found that over 50% of those with severe depression in the United States (US) reported using CAM to treat their condition, whereas less than 20% visited CAM therapist/providers. Meanwhile, a cross-sectional survey investigating the use of CAM providers and psychiatric outpatient services in people with anxiety/depression in Europe revealed that 17.8 % visited a CAM provider once or more in the last 12 months, 11.8 % visited psychiatric outpatient services, and 2.5 %

visited both (Hansen & Kristoffersen, 2016). In Taiwan, nearly 70% with depression reported using at least one form of CAM in the past 12 months (Hsu et al, 2008), whereas in China, a systematic review of randomized controlled trials found that prescription of Chinese herbal medicine in the treatment for depression is quite common (Yeung et al., 2015).

studies (e.g., Many Hansen & Kristoffersen, 2016; Solomon and Adams, 2015) reported women as more likely to use CAM approach compared to men, whereas higher educated people were more likely to use the CAM providers' services than the lowest educated. Also, severe anxiety and depressive symptoms were strongly associated with those who use both CAM providers and conventional psychiatric services, while those with moderate symptoms were found to use the approach CAM as the alternative pathways.

Various mental health professionals adopt the CAM approach as part of their practice. Based on clinical experience and preliminary data, psychiatrists and physicians commonly opt for biologicallytherapies that are non-FDA based approved and have minimal risks if they feel that a patient has failed to tolerate or respond to the conventional medicine (Page, 2013). Also, psychological and behavioural interventions outlined and carried out by psychiatrists, psychologists, therapists (including speech and language, occupational, and behavioural). counsellors, and social workers often include the mind-body and spiritual approaches (e.g., meditation, prayer, mental healing, art, music, and dance therapy), the manipulative and body-based methods (e.g., yoga, chiropractic and osteopathic manipulation, massage, relaxation technique, and exercise), and the other CAM approaches including aromatherapy and electromagnetic field exposures.

Certain alternative biologically-based therapies have shown promising effects on treating various psychiatric disorders. St. John's wort, SAMe (S-adenosyl-Lmethionine), and 5-Hydroxytryptophan (5-HTP), for example, have been used to treat depression as a stand-alone monotherapy (Preston & Johnson, 2016). St John's wort provides antidepressant effects through its which contain extract the naphthodianthrone hypericin, the phloroglucinol derivative hyperforin and several flavonoids (Butterweck, 2003). The chemicals act on the chemical messengers in the nervous system that regulates mood. Similarly, higher levels of SAMe in the serum and cerebrospinal fluid raises the levels of dopamine, serotonin, norepinephrine, and other neurotransmitters in the brain that are important for mood regulation (Delle Chiaie, Pancheri & Scapicchio, 2002). Meanwhile, the 5-HTP is used by the body to create serotonin. The 5-HTP supplements offer the advantage of bypassing the enzymatic conversion process of tryptophan hydroxylase which can be affected by stress and other factors (Palego, Betti, Rossi & Giannaccini, 2016).

omega-3 The fatty acids (n-3 Polyunsaturated Fatty Acids) and folic acids are commonly used to augment antidepressants (Preston et al., 2017). The omega-3 fatty acids, for example, contain eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) that helps to counter the low blood levels of EPA and DHA in people with depression (Hall-Flavin, 2015). Meanwhile, the folic acids in the form of L-methylfolate cross the blood-brain barrier and work indirectly to facilitate the synthesis of neurotransmitters that involved in mood regulation, particularly serotonin, dopamine, and norepinephrine (Stein, 2013).

The Ginkgo Biloba has been used in the treatment of cognitive and memory impairment caused by dementia (Wong et al., 1998), whereas melatonin has possible benefits to counter sleep disturbance, although the evidence is not robust (Preston et al., 2017). The mechanism of how Ginkgo Biloba works in the brain to improve cognition is related to its positive effect in improving mitochondrial dysfunction and dynamics, and neuronal plasticity (Stockburger, Eckert, Eckert, Friedland-Leuner & Müller 2018).

Numerous clinical trials and reviews of CAM therapies for the treatment of mental health problems, including some Cochrane reviews have been conducted. Although the evidence base from high-quality RCTs is limited, there is sufficient evidence to suggest some efficacy of some of the CAM approach. For example, a metaanalysis study of 27 trials (3808 patients) comparing Hypericum perforatum (St John's wort) with selective serotonin reuptake inhibitors (SSRIs) found comparable response and remission rated and a lower rate of discontinuation with Hypericum (Ng, Venkatanarayanan & Ho, 2017). However, the findings only applied to the treatment of mild and moderate depression but not for severe depression. Similar findings were reported by Apaydin and associates (2016) in their systematic review.

Meanwhile. Sharma and associates (2017) stated that their preliminary findings indicated that SAMe could reduce the symptoms of multiple neuropsychiatric conditions including certain neurocognitive, substance use and psychotic disorders and co-morbid medical conditions. Moreover, a systematic review of clinical studies examining SAMe for combating depression found that SAMe is equal or even superior in efficacy to tricyclic antidepressants in a (Delle Chiaie, Pancheri & Scapicchio, 2002). SAMe has also been found to be safe and effective

adjunctive treatment strategy for selective serotonin reuptake inhibitors (SSRIs) nonresponders with major depressive disorders (MDD) (Alpert et al., 2004). Similarly, L-methylfolate supplementation has been found to be beneficial and with minimal risk for those with MDD that has not responded well to conventional antidepressant medications (Papakostas et al., 2012; Fava & Mischoulon, 2009).

Also, besides its mood-stabilizing effects that help with short-term symptoms of bipolar disorder and its effective adjunct to conventional antidepressants, several reports have suggested the potential effects of the omega-3 fatty acids (n-3 Polyunsaturated Fatty Acids) on cognitive impairment/dementia, perinatal and postpartum depression, schizophrenia, borderline personality disorder, attention hyperactivity deficit disorder. and childhood mood disorders (Mental Health America, 2016).

A recent systematic review reported potentials for aromatherapy to be used as therapeutic effective option an for reducing depressive symptoms (Sanchez-Vidana et al., 2017). The effects of yoga in major depressive disorder (MDD) have been investigated seven RCTs, in highlighting some evidence of positive effects beyond placebo (Cramer, Anheyer, Lauche & Dobos, 2017). Participants in a study of long-term depressive disorders experienced a remission more so than did controls at 9-month follow-up after undergoing meditation with yoga, group with hypnosis, therapy and psychoeducation (Butler et al., 2008). For the late-life mood disorders and cognitive aging, evidence shows the beneficial effects of exercise, acupuncture and relaxation therapies, to a lesser extent (Lavretsky, 2009). Also, the evidence for the use of acupuncture in treating anxiety disorders is becoming stronger (van der Watt et al., 2008).

Based on the idea that positive emotions can improve human general health and well-being, many doctors, cancer nurses, and researchers have endorsed the use of many complementary therapies that concentrate on relaxation and reducing stress among cancer patients (Cancer Research UK, 2017). Moreover, relaxation techniques (including aromatherapy, deep breathing, mediation, and yoga), music, self-hypnosis, and acupuncture have been adopted as part of adjunctive therapies to help control or reduce pain as parts of clinical pain management in adults (Drugs, 2018), which can indirectly improve one's physical and mental well-being. Thus, based on the availability of evidence in the current literature related to the efficacy of the CAM approach, it is apparent that the CAM approach has some beneficial and validated values in the treatment of psychiatric disorders.

The use of CAM with children and adolescents has been reported (Chan, 2002), especially for those who suffered from co-morbid chronic health conditions, experienced a delay in conventional treatment due to cost constraints, had parents who used CAM, and had parents with higher educational levels (Ventola, 2010a). Children and youth have been reported to use CAM treatments to treat mental health issues such as anxiety disorders, mood disorders, autism, conduct disorders. and attention-deficit hyperactivity disorder (Chan. 2002: Ventola, 2010a). Common CAM therapies used by the pediatric population include mind-body therapies (e.g., deep breathing, yoga, meditation, and art, music, and biologically-based dance therapy), therapies (dietary-based therapies, mainly herbal and dietary supplements) (Kemper al.. 2013; Ventola, 2010a), and et aromatherapy (Laconic, 2014).

The reasons for clients' preference to opt for CAM and factors that contribute

towards clients' resistance and noncompliance to conventional medical psychological treatments were and explored. Contexts like ethnicity. socioeconomic status, gender, and culture that influence CAM use should not be undermined. CAM use is more prevalent among women and adults with higher incomes and advanced levels of education (Ventola, 2010a). The treatment setting differences such as the institutional atmosphere, mode of payment, and frequency and duration of contacts with professionals can also influence the treatment choice made by patients with psychiatric disorders (Anlauf et al., 2015).

In the conventional approach to psychiatric disorders, possible distrust in psychotherapists from the dominant culture can affect the therapeutic alliance and thereby influence the use of CAM (Bassman, 1997). Moreover, many traditional cultures, especially Native Americans and Asians, are predisposed to the use of CAM (Choi & Kim, 2010; Ventola, 2010a). Asian cultures view mental health problems as organically based and value orientations that shy away from open communication with strangers about their personal and family conflicts (Choi & Kim, 2010). Thus, CAM tends to be favored as the first line of treatment as it is less invasive. Furthermore, differences in dietary practices and the use of medicinal herbs in certain ethnic and cultural groups that can contribute to cross-ethnic and cross-cultural variations in drug metabolism can also affect clients' preference to CAM (Lin, 2010).

Many people argue that CAM treatments, especially the holistic healing approaches involving homeopathy and traditional herbal medicine, are not something new and untried (Bassman, 1997). Such treatments have been around for thousands of years and have addressed the health needs of past populations. In comparison to some alternative holistic approaches that address all of a person's symptoms at once at the emotional, physical. and spiritual level. psychotherapy is seen as time- and costconsuming. Also, psychotherapy may not fit with clients who are nonverbal, less intelligent. and those who are not comfortable talking about their problems involve having a face-to-face that conversation and introspection. Using a CAM approach allows individuals to choose from a variety of treatment options in accordance with their learning style and lifestyle (Bassman, 1997).

Moreover, clients reported many frustration with and distrust of conventional medicine because of the psychotropic overprescribing of medications, as this was perceived as downplaying the psychological aspects of the illness. Some clients also complained about the nature of side effects that psychotropic drugs have, while most alternative approaches were seen as having limited or even no side effects (Bassman, 1997). For example, Asher and associates (2017) found that the risk of treatment harms and treatment discontinuation attributed to adverse effects was higher for SSRIs compared to St. John's wort. Many claimed that conventional medicine could management regime be а and authoritarian, especially for mental illnesses that require lifetime medication (Bassman, 1997). The CAM approach provides them with some flexibility. Also, it was argued that pharmacology and psychotherapy in conventional medicine neglect the prevention side of illness, while many holistic modalities can be used in both prevention (as prophylactic) and in treatment (as therapeutic modalities) (Bassman, 1997).

Other reasons attributed to the increased use of CAM in recent years may include wider information availability on the Internet, increased contact with other cultures that use CAM, and a growing recognition that various factors contribute to health and general well-being (Ventola, 2010a).

Concern issues over CAM

Researchers have highlighted the potential problems of approaching CAM either complementary or as an as alternative without some precautions. Concerns are especially raised in regards to the biologically-based therapies such as herbal remedies, vitamins, and dietary supplements, which are one of the most used forms of CAM therapies (Ventola, 2010a). Scholey and associates (2005) stated the pharmaceutical medication that is generally processed from the isolation or synthesis of active agents is aimed at specific targets. However, most biologically-based substances used in CAM such as the natural herbal remedies contain dozens of active components, and their non-specified actions with complex modulations and interactions may negatively affect multiple neuronal. metabolic, and hormonal systems. As such, they can be detrimental to health and even deadly.

Moreover, the herbal, vitamin, and dietary supplements market possesses some serious ethical and safety concerns due to the poor safety monitoring and the industry. regulations in These unregulated products are independently tested with no assurance of the strengths, efficacies, and potencies, and have a high risk of possible impurities and contamination (Preston et al., 2017). The misrepresentation issue of naturalness is concerning, mainly because naturalness does not guarantee harmlessness. Rather, some of the products have been found to contain risky toxic substances, including arsenic, lead, cadmium, and mercury (Anlauf et al., 2015). Thus, due to the scarcity of research evidence on efficacy and safety, the unsupervised use of CAM among psychiatric patients can result in lethality—especially for patients who have other comorbid medical disorders such as diabetes, cardiovascular disease, and other serious acute and chronic conditions. highlighted Ventola (2010b) the importance of creating policies and practices of CAM guided by a rigorous analysis of the impact of such use on the patient's care and condition, the medical order, and thorough documentation of such use. Despite this strong recommendation, policies and practices remain such inconsistent and "wrought with confusion."

Although there is some relevant evidence available for CAM, the validity examining of most studies the effectiveness of specific CAM approach is flawed criticised as with serious methodological issues, small sample size in trials, varied comparison interventions, and lack of systematically collated data on adverse events or long-term effects (Pilkington, 2018). For example, a systemic review done by Jorm and associates (2006) concluded glutamine, Sadenosylmethionine, St John's wort. vitamin C, omega-3 fatty acids, light massage. therapy. art therapy. bibliotherapy, distraction techniques, exercise, and relaxation therapy can have some benefits for the treatment of depression in children and adolescents. However, the study also strongly emphasized that the evidence was limited, that the findings are mixed and generally came from poor quality research, and that many methodologies adopted were flawed. Furthermore, the evidence for the efficacy of the majority of complementary and alternative interventions used to treat anxiety and depression remains poor (van der Watt et al., 2008). For example, a twenty-six trials of the omega-3 fatty acids (n-3 Polyunsaturated Fatty Acids). involving 1438 participants that were included in a Cochrane review found that only a 'small-to-modest' benefit was shown for the supplement, but the evidence was

judged to be very low quality, and did not clinically appear to be significant (Appleton, Sallis, Perry, Ness & Churchill, 2015). Similarly, inconclusive evidence was found in a recent systematic review of RCTs that assessed the effectiveness and safety of acupuncture for the treatment of MDD (Sorbero et al., 2016), and while hypnosis has been found to significantly alleviate preoperative anxiety in adult patients (Saadat et al., 2006), researchers argued that the number of studies to support its use is very limited, and concluding it as effective treatment would be premature (Pilkington, 2018). Also, a randomized. partially double-blind, placebo-controlled study on homeopathy depression reported inconclusive for evidence on the approach's effectiveness (Adler et al., 2013). Despite this, it is confusing to find that such lack of valid evidence has not diminished the popularity of such interventions within the general population (van der Watt et al., 2008).

Most patients did not inform their doctors that they were taking some dietary herbal supplements with and the prescribed medications (Preston et al., 2017). It was estimated that only about 35% of patients discussed their CAM use with the psychiatrist (Pilkington, 2018). According to Ventola (2010c), such neglect has raised heavy concerns about the dangers of unintended drugsupplement interactions, the potential for serious adverse reactions, toxicity. adulterants, individual economic risks in treatments, dosage variability issues, and the potential risks to special populations of children, pregnant women, patients undergoing surgery, and immunocompromised patients, among others. The potential harm can affect clients/patients directly through drug-drug interactions, and indirectly by delaying conventional care that has been proven to be effective.

Many patients use CAM concurrently with their conventional medicine (Solomon & Adams, 2015). The potential concerns of the pharmacokinetic and pharmacodynamic drug interactions with naturopathy, herbal medicines, and dietary supplements have been reported. Findings suggest such interactions can seriously affect hemostasis, liver function, and healing through affecting the prescribed medications and other healing agents' responses (Ventola, 2010c). Potential drug interactions can occur with the common herbal remedies and dietary supplements. These include (but are not limited to) garlic, St John's wort, Gingko Biloba, ginseng, licorice, grapefruit juice, and traditional Chinese medicines (Ventola, 2010c).

Meanwhile. Anlauf and associates (2015) refuted the claim that the CAM approach is "holistic" as it is "neither proven at a pathophysiologic level nor in terms of clinical efficacy." Moreover, if a patient is using CAM as a complementary rather than alternative treatment, more spending is needed rather than saving costs. Thus, the cost-saving claim made by CAM users is untrue in many cases. Also, even though patients' preference should be heard, mental health professionals are responsible, like everyone else in the medical and health fields, to pursue explanations and evidence instead of conveniently or readily fulfilling the desires of their often insufficiently informed patients. Importantly, researchers have argued that the efficacy context of CAM treatment is problematic because it is rooted in either therapeutic pseudoplacebos or pure-placebos as a result of positive expectations and experiences. Furthermore, placebos can also trigger negative effects as per expectation, such that the placebo has nocebo effects that have clinical significance (refer to Anlauf et al., 2015 for more details).

Finally, Preston and Johnson (2016) stated that there are people who selfdiagnose their conditions and adopt the CAM approach to self-treat. This is a potentially dangerous practice, especially when people who have undiagnosed bipolar disorder begin taking St. John's wort, SAMe, or 5-HTP (the mood-altering used reduce depressive agents to symptoms). The drug can provoke switching into a manic episode within 3–5 just like the conventional weeks. antidepressants would work. Thus, the CAM treatment needs to be carefully evaluated and medically supervised by the mental health team.

To sum up, high concerns for the use of CAM approaches are mainly associated with the use of biologically-based patients/clients Many therapies. who the adopted CAM approach have inadequate information on its usefulness, research efficacy and validity, drug interactions, side effects, dosages, and alternatives. However, under the right evaluation, patient/client education, and supervision from the mental health professionals who are equipped with the background knowledge of CAM to ensure efficacy and minimal risks, the approach can provide endorsement to individual's preferences and values.

Roles and strategies for mental health professionals

Increased popularity and use of CAM, especially in the treatment of mental disorders, has highlighted the need for better-informed mental health professionals to be able to provide patient counseling about the approach (Ventola, 2010a). However, studies found health care professionals currently lack the knowledge, confidence, and training to provide such services (Ventola, 2010a).

According to Page (2013), it is important for mental health professionals and treating physicians to be equipped with the right way to communicate and discuss CAM particularly because exaggerated claims may lead to a lawsuit for malpractice or hauled before the medical/ health professional board. On the other hand, if clinicians posited themselves in a hard way about CAM and communicated it to the patients, this may end up alienating patients who might be a CAM's strong believer. Thus, it is important for professionals to be as nonjudgmental as possible.

Providing patient education about CAM is crucial particularly for individuals who suffer from chronic and severe psychiatric disorders. These patients need conventional medicine to treat or stabilize their symptoms and disorders to prevent relapse or worsen their condition. Using CAM without medical supervision in these cases can be very dangerous and may cost lives. Thus, therapists/clinicians should patients encourage to adhere to conventional treatment.

contribute Factors that to noncompliance and low adherence to conventional medicine in patients may include the negative experiences of the side effects of medications, fear of being drug dependent, the negative stigma surrounding medicating the mentally ill, financial concerns, ineffective consultations, cultural and cross-cultural beliefs and differences, the patient's attitude towards medication, expectations of the drug's effectiveness, lack of social support, and poor quality of the therapeutic alliance (Preston et al., 2017). These contextual factors highlight the role of biopsychosocial interventions and the importance of the therapeutic alliance and adopting strategies like psychoeducation (Bennett, 2011; Preston et al., 2017). Encouragement of compliance and adherence to medical treatment can only be effective if the therapeutic alliance has been established early on.

Several ways to help patients' adherence to conventional medicine through a trustful therapeutic alliance may

include acknowledging to patients the difficulties of taking medication, outlining the realistic benefits, discussing possible adverse effects, discussing consideration of treatment alternatives within the conventional approach, and having regular follow-up meetings once the patient has course of psychotropic started а medication (Mitchell & Selmes, 2007). Further, encouraging clients/patients to discuss their treatment concerns openly can benefit both the therapeutic alliance and adherence to treatment (Preston et al., 2017).

The influence of culture on the use of CAM highlights the importance of community psychoeducation and outreach to increase accessibility and usability of mental health services. There is a need to improve the language gap between mental health providers and culturally-diverse patients (Choi & Kim, 2010). Besides being culturally sensitive towards patients' values, a discussion on the patient's perception of the "meaning" attached to a given medication, psychotherapy, and the diagnostic label can be initiated by therapists/clinicians to assess patients' perceptions and risk for noncompliance (Preston et al., 2017).

Noncompliance with conventional treatment has been found to be high especially in patients with dependent and borderline personality disorders, anxiety disorders, and paranoia (Preston et al., 2017). If the mental health professional can positively communicate with patients about their diagnosis, medication, and treatment effectively at the early stage of treatment, patients can develop more positive attitudes towards their treatment (Preston et al., 2017).

Therapists/clinicians are likely to encounter patients/clients who report in counseling or psychotherapy sessions that they are using, interested in, or seeking information about alternative treatment modalities (Preston et al., 2017). Thus, the collaboration between physicians /psychiatrists and therapists can enhance communication about patients' diagnosis, etiology, symptoms, and best treatment options. Therapists can be crucial in supplying information regarding diagnosis and treatment response (Preston et al., 2017). Since nonmedical therapists like psychologists and social workers are often required to work directly in monitoring patients' responses to medication in many settings, it is important for them to know psychopharmacology, at least at the basic level.

Therapists/clinicians should also play an important role in assessing every patient's/client's use of the CAM approach as part of the routine history-taking and diagnostic assessment, and educate them which alternative therapies are on established (e.g., relaxation therapies, biofeedback, chiropractic care, and hypnosis) and less established (e.g., herbal, high dose vitamin regimens, and other dietary supplements) (Preston et al., 2017). Within the scope of biologically-based therapies in CAM, Ventola (2010b) recommended mental health professionals emphasize only evidence-based use and restrict patients/clients use to only products that have undergone quality assurance testing. Verifying the licensure and checking the record of patients' alternative care provider with the associated CAM board also are recommended (Page, 2013). Additionally, psycho-medical education including information either supports that or contradicts the use of treatment or product should be provided so that clients can make an informed decision. Given that therapists/clinicians lack the expertise to make specific psychopharmacological recommendations, clients/patients should be referred to appropriate experts (e.g., psychiatrists, physicians, pharmacists, nutritionist, and dietitians) to address their CAM issues and medication concerns.

The practice of integrative medicine

There is a rise in integrative practice in the medical field (Ernst, 2000), partly due to an increase in clients' interest in incorporating certain alternative therapies treatments in the delivery of and healthcare. The benefits of an integrative practice model have been reported. For example, in the mental health field, a recent program combining emotionfocused cognitive therapy and acupuncture for the treatment of patients with depressive symptoms showed a significant depressive influence in reducing symptoms (Zhang & de Guzman, 2016).

However, such practice is not without challenges and criticisms (Ventola, 2010a; Ventola, 2010b). There is a significant lack of methodologically rigorous studies within the CAM field. Despite the lack of valid data on its safety and effectiveness (particularly for the pediatric population), there are tremendous efforts to market the herbal and dietary products and other approaches to CAM the general population. Integrating controversial CAM treatments and approaches that are not evidence-based with conventional medicine can be considered unethical practice (Anlauf et al., 2015).

Thus, CAM treatments that are used by patients and endorsed by mental health professionals should be evidence-based. from clinically relevant results of randomized controlled studies and corresponding meta-analyses—just like the science-oriented conventional treatments. Any medicines and methods that do not exceed a placebo effect should not have any place in therapeutic practice, and both conventional and alternative components in the integration must provide an provable individual and contribution (Anlauf et al., 2015).

The development of an integrated healthcare system rooted in appropriate regulations and supported by rigorous scientific evidence should be the next direction for this field (Ross, 2009; Ernst, 2000); only then can CAM knowledge be seen as necessary with regard to being fully integrated into mental health studies (and in the training), and continuing education of mental health professionals. However, to advance the integration professionally with evidence-based practice, more funding and higher vested academic and research interest should be made available. Collaborations with the big pharmaceutical companies and independent bodies may even be beneficial.

Conclusion

clients choose the CAM Many approach for various reasons. Alternative medications and treatments have both pros and cons. While some of the treatment modalities in the CAM approach have proven to be beneficial, others should be used with caution. Even where there is strong evidence to support the use of certain CAM approach, there may be factors preventing a wider clinical application for them due to concerns related to interactions or lack of the

References

- Adler, U. C., Krüger, S., Teut, M., Lüdtke, R., Schützler, L., Martins, F., Willich, K.L., & Witt, C. M. (2013). Homeopathy for depression: A randomised, partially placebo-controlled, double-blind, four-armed study (DEP-HOM). PloS One, 8(9), e74537. https://doi.org/10.1371/journal.pon e.0074537
- Alpert, J. E., Papakostas, G., Mischoulon,D., Worthington III, J. J., Petersen,T., Mahal, Y.,& Fava, M. (2004).S-adenosyl-L-methionine (SAMe)

as an adjunct for resistant major depressive disorder: an open trial following partial or nonresponse to selective serotonin reuptake inhibitors or venlafaxine. *Journal of Clinical Psychopharmacology*, *24*(6), 661-664. https://doi: 10.1097/01.jcp.0000145339.45794. cd

- Anlauf, M., Hein, L., Hense, H.W., Köbberling, J., Lasek, R., Leidl, R., (2015). Schöne-Seifert, B. & Complementary and alternative therapy drug versus scienceoriented medicine. GMS German Medical Science, 13, 1-47. https://doi.org/10.3205/000209
- Apaydin, E. A., Maher, A. R., Shanman,
 R., Booth, M. S., Miles, J. N.,
 Sorbero, M. E., & Hempel, S.
 (2016). A systematic review of St.
 John's wort for major depressive disorder. Systematic Reviews, 5(1), 148.

https://doi.org/10.1186/s13643-016-0325-2

- Appleton, K. M., Sallis, H. M., Perry, R., Ness, A. R., & Churchill, R. (2015). Omega-3 fatty acids for depression in adults. *The Cochrane Library*.https://doi.org/10.1002/146 51858.CD004692.pub4
- Asher, G. N., Gartlehner, G., Gaynes, B. N., Amick, H. R., Forneris, C., Morgan, L. C., Coker-Schwimmer, E., Boland, E., Lux, L.J., Gaylord, S., Bann, C., Pierl, C.B., & Lohr, K.N. (2017). Comparative Benefits and Harms of Complementary and Alternative Medicine Therapies for of Initial Treatment Major Depressive Disorder: Systematic Review and Meta-Analysis. The Alternative Journal of and Complementary Medicine, 23(12), 907-919. https://doi.org/10.1089/acm.2016.0 261
- Bassman, L. (1997). Holistic mental health care: Alternatives and adjuncts to

psychotherapy and medication. *The Humanistic Psychologist*, 25(2), 138.

https://doi.org/10.1080/08873267.1 997.9986877

- Bennett, P. (2011). Abnormal and clinical psychology: An introductory textbook. United Kingdom (UK): McGraw-Hill Education & Open University Press.
- Butler, L.D., Waelde, L.C., Hastings, T.A., Chen, X.H., Symons, B., Marshall, J., Kaufman, A., Nagy, T.F., Blasey, C.M., Seibert, E.O., & Spiegel, D. (2008). Meditation with yoga, group therapy with hypnosis, and psychoeducation for long-term depressed mood: a randomised pilot trial. *Journal of Clinical Psychology*, 64(7), 806-820. https://doi.org/10.1002/jclp.20496
- Butterweck, V. (2003). Mechanism of action of St John's wort in depression. *CNS drugs*, 17(8), 539-562. https://doi.org/10.2165/00023210-

200317080-00001

- Cancer Research UK (2017). Why people use complementary or alternative therapies. *Cancer Research UK*. Retrieved July 6th, 2018, from https://aboutcancer.cancerresearchuk.org/aboutcancer/cancer-ingeneral/treatment/complementaryalternative-therapies/about/whyused#
- Chan, E. (2002).The role of complementary and alternative medicine attention-deficit in hyperactivity disorder. Journal of *Developmental* Å **Behavioral** Pediatrics, 23, S37-S45.
- Choi, N.G., & Kim, J. (2010). Utilization of complementary and alternative medicines for mental health problems among Asian Americans. Community Mental Health Journal, 46(6), 570-578.

https://doi.org/10.1007/s10597-010-9322-4

- Cramer, H., Anheyer, D., Lauche, R., & Dobos, G. (2017). A systematic review of yoga for major depressive disorder. *Journal of Affective Disorders*, 213, 70-77. https://doi.org/10.1016/j.jad.2017.0 2.006
- Delle Chiaie, R., Pancheri, P., & Scapicchio, P. (2002). Efficacy and tolerability of oral and intramuscular S-adenosyl-Lmethionine 1, 4-butanedisulfonate (SAMe) in the treatment of major comparison depression: with imipramine in 2 multicenter studies. The American Journal of Clinical Nutrition, 76(5), 1172S-1176S.

https://doi.org/10.1093/ajcn/76/5.1 172

Drugs (2018). Non-pharmacological Pain Management Therapies For Adults. *Drugs*. Retrieved July 6th, 2018, from https://www.drugs.com/cg/nonpharmacological-painmanagement-therapies-for-

adults.html

- Ernst, E. (2000). The role of complementary and alternative medicine. *British Medical Journal*, *321*(7269), 1133. https://doi.org/10.1136/bmj.321.72 69.1133
- Fava, M., & Mischoulon, D. (2009). Folate in depression: efficacy, safety, differences in formulations, and clinical issues. *Journal of Clinical Psychiatry*, 70(5), 12-17. https://doi.org/10.4088/JCP.8157su 1c.03
- Hall-Flavin, D. K. (2015). Is there any benefit to taking fish oil supplements for depression?. *Mayo Clinic*. Retrieved July 6th, 2018, from

https://www.mayoclinic.org/diseas es-conditions/depression/expertanswers/fish-oil-supplements/faq-20058143

- Hansen, A. H., & Kristoffersen, A. E. (2016). The use of CAM providers and psychiatric outpatient services in people with anxiety/depression: a cross-sectional survey. BMC Complementary and Alternative Medicine, 16(1), 461. https://doi.org/10.1186/s12906-016-1446-9
- Hsu, M. C., Creedy, D., Moyle, W., Venturato, L., Tsay, S. L., & Ouyang, W. C. (2008). Use of complementary and alternative medicine among adult patients for depression in Taiwan. *Journal of Affective Disorders*, *111*(2), 360-365. https://doi.org/10.1016/j.jad.2008.0

3.010

- Jorm, A.F., Allen, N.B., O Donnell, C.P., Parslow, R.A., Purcell, R., & Morgan, A.J. (2006). Effectiveness of complementary and self-help treatments for depression in children and adolescents. *Medical Journal of Australia, 185*(7), 368.
- Kemper, K.J., Gardiner, P., & Birdee, G.S. (2013). Use of complementary and alternative medical therapies among youth with mental health concerns. *Academic Pediatrics*, 13(6), 540-545. https://doi.org/10.1016/j.acap.2013. 05.001
- Kessler, R. C., Soukup, J., Davis, R. B., Foster, D. F., Wilkey, S. A., Van Rompay, M. I., & Eisenberg, D. M. (2001). The use of complementary and alternative therapies to treat anxiety and depression in the United States. *American Journal of Psychiatry*, 158(2), 289-294. https://doi.org/10.1176/appi.ajp.15 8.2.289
- Laconic, E.J. (2014). Health Professionals' Use of Aromatherapy with Children and Adolescents with Mental Illness. *Master of Social*

Work Clinical Research Papers, 349.

http://sophia.stkate.edu/msw_paper s/349

- Lavretsky, H. (2009). Complementary and alternative medicine use for treatment and prevention of latelife mood and cognitive disorders. *Aging Health*, 5(1), 61–78. https://doi.org/10.2217/1745509X. 5.1.61
- Lin, K.M. (2010). Cultural and Ethnic Issues in Psychopharmacology. *Psychiatric Times*, 27, 1-7.
- Health America (2016).Mental Complementary & Alternative for Medicine Mental Health. Mental Health America. Retrieved July 6th. 2018. from http://www.mentalhealthamerica.n et/sites/default/files/MHA CAM.p df
- Mitchell, A.J., & Selmes, T. (2007). Why don't patients take their medicine? Reasons and solutions in psychiatry. Advances in Psychiatric Treatment, 13(5), 336-346.

https://doi.org/10.1192/apt.bp.106. 003194

- Ng, Q. X., Venkatanarayanan, N., & Ho, C. Y. X. (2017). Clinical use of Hypericum perforatum (St John's wort) in depression: A metaanalysis. *Journal of Affective Disorders*, 210, 211-221. https://doi.org/10.1016/j.jad.2016.1 2.048
- Page, L. (2013). What to Do When a Patient Wants 'Alternative' Medicine. *Medscape*. Retrieved July 6th, 2018, from https://www.medscape.com/viewar ticle/805545
- Palego, L., Betti, L., Rossi, A., & Giannaccini, G. (2016). Tryptophan biochemistry: structural, nutritional, metabolic, and medical aspects in humans.

Journal of Amino Acids, 2016. http://dx.doi.org/10.1155/2016/895 2520

- Papakostas, G. I., Shelton, R. C., Zajecka, J. M., Etemad, B., Rickels, K., Clain, A.,& Pencina, M. (2012). Lmethylfolate as adjunctive therapy SSRI-resistant for major depression: results of two randomized, double-blind, parallelsequential trials. American Journal of Psychiatry, 169(12), 1267-1274. https://doi.org/10.1176/appi.ajp.20 12.11071114
- Pilkington, K. (2018). Current Research on Complementary and Alternative Medicine (CAM) in the Treatment of Depression: Evidence-Based Review. In *Understanding Depression* (pp.311-322). Springer,Singapore. https://doi.org/10.1007/978-981-10-6577-4_23
- Preston, J., & Johnson, J. (2016). *Clinical Psychopharmacology made ridiculously simple* (8th ed.). Miami, FL: MedMaster, Inc.
- Preston, D., O'Neal, J., Talaga, M. (2017). *Handbook of Clinical Psychopharmacology for Therapists* (8th ed.). Oakland, CA: New Harbinger Publications, Inc.
- Ross, C.L. (2009). Integral healthcare: the benefits and challenges of integrating complementary and alternative medicine with а conventional healthcare practice. *Integrative* Medicine Insights, 4, 13.
- Н., Drummond-Lewis, J., Saadat. Maranets, I., Kaplan, D., Saadat, A., Wang, S.M., & Kain, Z.N. (2006). Hypnosis reduces preoperative anxiety adult in patients. Anesthesia å Analgesia, 102(5), 1394-1396. https://doi.org/10.1213/01.ane.000 0204355.36015.54
- Sánchez-Vidaña, D. I., Ngai, S. P. C., He, W., Chow, J. K. W., Lau, B. W.

M., & Tsang, H. W. H. (2017). The effectiveness of aromatherapy for depressive symptoms: A systematic review. *Evidence-Based Complementary and Alternative Medicine*, 2017. https://doi.org/10.1155/2017/58693 15

- Scholey, A., Kennedy, D., & Wesnes, K. (2005). The psychopharmacology of herbal extracts: issues and challenges. *Psychopharmacology*, *179*(3), 705-707. https://doi.org/10.1007/s00213-004-2062-9
- Sharma, A., Gerbarg, P., Bottiglieri, T., Massoumi, L., Carpenter, L. L., Н., Lavretsky, Muskin, P.R., Brown, R.P. & Mischoulon, D. (2017). S-Adenosylmethionine (SAMe) for neuropsychiatric clinician-oriented disorders: а review of research. The Journal of Clinical Psychiatry, 78(6), e656. https://doi.org/10.4088/JCP.16r111 13
- Solomon, D., & Adams, J. (2015). The use of complementary and alternative medicine in adults with depressive disorders. A critical integrative review. *Journal of Affective Disorders*, 179, 101-113. https://doi.org/10.1016/j.jad.2015.0 3.031
- Sorbero, M. E., Reynolds, K., Colaiaco, B., Lovejoy, S. L., Farris, C., Vaughan, C. A., Sloan, J., Kandrack, R., Apaydin, E., & Herman, P. M. (2016). Acupuncture for major depressive disorder: a systematic review. *Rand Health Quarterly*, 5(4).
- Stein, T. (2013). Depression Won't Go Away? Folate Could Be The Answer. *Psychology Today*. Retrieved July 6th, 2018, from https://www.psychologytoday.com/ us/blog/the-

integrationist/201310/depression-

wont-go-away-folate-could-be-theanswer

- Stockburger, C., Eckert, S., Eckert, G. P., Friedland-Leuner, K., & Müller, W. E. (2018). Mitochondrial Function, Dynamics, and Permeability Transition: Α Complex Love Triangle as A Possible Target for the Treatment of Brain Aging and Alzheimer's Disease. Journal of Alzheimer's Disease. 64(1), S455-S467. https://10.3233/JAD-179915
- Van der Watt, G., Laugharne, J., & Janca, A. (2008). Complementary and medicine alternative in the treatment of anxiety and depression. Current Opinion in Psychiatry, 21(1), 37-42. https://doi.org/10.1097/YCO.0b013 e3282f2d814
- Ventola, C.L. (2010a). Current issues regarding complementary and alternative medicine (CAM) in the United States: Part 1: The widespread use of CAM and the need for better-informed health professionals to provide care patient counseling. Pharmacy and *Therapeutics*, *35*(8), 461.
- Ventola, C.L. (2010b). Current issues regarding complementary and alternative medicine (CAM) in the United States: Part 3: policies and practices regarding dietary supplements in health care facilities. *Pharmacy* and Therapeutics, 35(10), 570.
- Ventola, C.L. (2010c). Current issues regarding complementary and alternative medicine (CAM) in the United States: Part 2: regulatory and safety concerns and proposed governmental policy changes with respect to dietary supplements. *Pharmacy and Therapeutics*, 35(9), 514.
- Wong, A.H., Smith, M., & Boon, H.S. (1998). Herbal remedies in psychiatric practice. *Archives of*

General Psychiatry, 55(11), 1033-1044. https://doi.org/10.1001/archpsyc.55 .11.1033

- Yeung, W. F., Chung, K. F., Ng, K. Y., Yu, Y. M., Zhang, S. P., Ng, B. F. L., & Ziea, E. T. C. (2015). Prescription of Chinese herbal medicine pattern-based in traditional Chinese medicine treatment for depression: a systematic review. Evidence-Based Complementary and Alternative Medicine, 2015. http://dx.doi.org/10.1155/2015/160 189
- Zhang, Z., & de Guzman, R. (2016). An effective innovative intervention program (combining emotionfocused cognitive therapy and acupuncture) for the treatment of patients with depressive symptoms. *Indian Journal of Positive Psychology*, 7(1), 15.