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Integrative mental healthcare White Paper: Establishing a new paradigm through research, education, and clinical guidelines

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ABSTRACT

Mental illness accounts for about one-third of adult disability globally, reflecting marked societal and personal suffering, and enormous social and economic costs. On a global level, mental healthcare has failed to adequately address urgent unmet needs of the mentally ill. These circumstances call for change in the paradigm and practices of mental healthcare, including fundamental reforms in education, clinician-training, and research priorities. This White Paper outlines current challenges in mental healthcare, and characterizes the emerging field of Integrative Mental Health (IMH), a critical element in the large-scale changes needed to transform mental healthcare in the 21st century. Strategic recommendations for advancing IMH are outlined including increasing research in key areas, improving clinician training and education, and promoting a public health agenda. The field of IMH adopts the bio-psycho-socio-spiritual model, utilizing evidence-based and evidence-guided treatments from both traditional healing systems and modern scientific practices. IMH incorporates mainstream interventions including the judicious use of psychopharmacology and psychosocial therapies, in addition to evidence-based complementary and alternative (CAM) medicines and therapies, and health-promoting lifestyle changes (i.e. enhancement of dietary, exercise, sleep, work/relaxation patterns). The clinical application of IMH takes into account the range of socio-cultural, economic and spiritual considerations affecting mental healthcare practice in different countries. To meet the challenges facing mental healthcare, the *International Network of Integrative Mental Health* (INIMH: www.INIMH.org) was established in 2010 (officially launched in October 2012) with the objective of creating an international organization consisting of clinicians, researchers, educators, and public health advocates. INIMH was created to advance a global agenda for research, education and the clinical practice of evidence-based integrative mental healthcare. In authoring this White Paper, the board of INIMH is inviting global dialogue on critical issues surrounding mental health care in the hope of achieving integrated, compassionate, individualized, person-centered mental healthcare.

Framing the problem

Overview

Mental illness accounts for about one-third of the world's disability due to all health problems in adults [1], reflecting marked societal and personal suffering and enormous socioeconomic costs. Critically, mental health care globally does not adequately address this crisis, calling for urgent change in the paradigm and practices of mental healthcare including basic reforms in education, clinician training, and research. The purpose of this White Paper is to characterize and advance the new field of Integrative Mental Health (IMH), which provides one potential solution to address the current crisis. From this, a strategic vision is outlined in the areas of research, clinician education and training, and public education and advocacy.

Improved mental healthcare is urgently needed in all world regions

Serious mental health problems, including depression, bipolar disorder, schizophrenia, and drug and alcohol abuse occur in all countries and directly or indirectly affect all age groups. Mental

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illness is associated with poverty, wars and other humanitarian disasters, and often leads to suicide. It is estimated that 10–20 million people attempt suicide every year, and one million complete suicide [2]. For example, major depressive disorder affects an estimated 121 million people worldwide and is one of the leading causes of disability on a global scale [2]. By 2020, depression is expected to be the second leading contributor to all-cause disability worldwide second only to heart disease [3]. Enormous psychological, social and occupational costs are associated with depressed mood [4], with the condition being a leading cause of disability in the U.S. for individuals ages 15–44 with annual losses in productivity in excess of $31B [2].

Mental illness is the pandemic of the 21st century which is our next global challenge. One current example of deficiency in the present treatment approach is in the area of clinical depression. In spite of the increased availability of antidepressants over the past few decades, questionable efficacy, unresolved safety issues and high treatment costs have resulted in an enormous unmet need for treatment of depressed mood. On average it takes almost 10 years for a depressed person to obtain treatment after symptoms begin, and over two-thirds of depressed individuals never receive minimally adequate care [5]. Despite the magnitude of the impact of mental illness on global health, most countries do not regard mental illness as a high priority.

More than 85% of the world's population lives in 153 low- and middle-income countries [2]. Poverty is linked to a higher burden of mental illness, with variables such as education, food insecurity, housing, social class, socio-economic status and financial stress exhibiting a strong association [6]. Most of these countries allocate scarce financial resources to mental healthcare needs and have grossly inadequate professional mental health services [2]. A recent comprehensive survey of European Union member countries found that 38.2% (approximately 165 million people) met criteria for a psychiatric disorder with fewer than one-third receiving any treatment at all [7]. Disorders of the brain, including mental disorder, were found to be the largest contributor to the all cause morbidity burden as measured by disability adjusted life years (DALYs). In Western countries such as the U.S., the elderly, minorities, low income groups, the uninsured, and residents of rural areas are less likely to receive adequate mental health care and most people with serious mental health problems receive either no treatment or inadequate treatment for their disorders. While data is absent in many jurisdictions, this occurrence no doubt is mirrored in less-developed countries.

Efficacy and safety issues limit current mental healthcare

While appropriate therapeutic application of pharmacotherapies is an important aspect of any ethical treatment protocol, nonselective over-prescribing is often associated with a range of issues. In spite of decades of research and billions of dollars of industry funding, the evidence supporting pharmacologic treatments of many major psychiatric disorders is not compelling [8–12]. In addition to growing concerns about lack of efficacy, many widely used psychotropic drugs may cause serious adverse effects, including weight gain, increased risk of diabetes and heart disease, neurologic disorders, sudden cardiac death, and may potentially increase suicide risk. Some adverse effects lead to additional medical disorders, which in turn increase psychological burden. Metabolic syndrome is a well-documented adverse effect of antipsychotics and other psychotropic agents, associated with weight gain and increased risk of diabetes and coronary heart disease [13]. The limited capacity of conventional medications to alleviate serious symptoms of depressed mood, anxiety, psychosis and other psychiatric disorders may result in impaired occupational functioning and losses in productivity. Serious concerns exist about limitations of the current mainstream model of care, including inequalities in the delivery of mental health services, the lack of integration of mental health services into primary care and other medical specialties, and conflicts of interest in relationships between the research community and the pharmaceutical industry.

The shortcomings of conventional treatments and established models of mental healthcare invite urgent open-minded dialogue on the range of promising non-conventional treatments, as well as innovative concepts in care delivery. In addition to novel pharmacological therapies, accumulating research evidence demonstrates potential efficacy of other treatment modalities for many common mental health problems, including psychological interventions, select standardized pharmaceutical-grade natural products, lifestyle modifications (Lifestyle Medicine), as well as non-allopathic whole system approaches such as Traditional Chinese Medicine (TCM) and Ayurveda, and mind–body approaches. Examples of non-conventional therapies for which there is evidence of efficacy for psychiatric disorders include St John's wort and S-adenosyl methionine (SAMe) for depression; adjunctive nutrients such as omega-3 fatty acids, folic acid, L-tryptophan, n-acetyl cysteine, and SAMe for mood disorders; kava and acupuncture for anxiety; and mindfulness training for negative symptoms of schizophrenia, anxiety and mood disorders [14]. In addition to these complementary and alternative (CAM) therapies, prescriptive Lifestyle Medicine involving the recommendations of regular moderate exercise, a healthy diet, a regulated sufficient sleep pattern, and reduced use of alcohol and nicotine, also offers encouraging evidence for improving overall mental health [15–17].

While conventional pharmaceuticals may be appropriate and efficacious treatments for some mental health problems in some individuals, the time has come to move beyond a strictly conventional biological approach to mental healthcare, be it the prescription of a pharmaceutical or natural medicine, to a more inclusive integrated model that considers the range of social, psychological and biological causes of mental "illness". This is an approach that addresses both preventing and treating mental health conditions, and considers the concept of "wellness", as opposed to simply the amelioration of symptoms.

The emerging context of integrative mental healthcare

High prevalence rates and unmet treatment needs of serious mental illness in both developed and less developed countries illustrate the enormous global public health challenges posed by mental illness. Further, this underscores inadequacies of the conventional model of care, and the urgent need for more effective, safer, more affordable and more accessible treatments. As discussed above, CAM research in several instances is rapidly yielding evidence of comparable efficacy to conventional treatments, with a superior safety profile, and select CAM therapies used in the context of an integrated system of care may provide a potential solution for enhancing the current mental health treatment model. Increasing acceptance of CAM treatments in developed countries is the result of both scientific advances and social trends. In contrast to CAMs wider acceptance in developed countries, there is little research of CAM in medical schools and other academic settings. In less developed world regions the situation is different. Here CAM is widely used but there may be quality issues with traditional medicines, and safety concerns over some therapeutic techniques.

Conventional allopathic medicine is being influenced by increasing openness amongst conventionally trained physicians to non-Western healing practices in the context of growing patient demands for more meaningful and more personal contact with

Table 1
Challenges and solutions for advancing integrative mental health.

Area	Current challenge	Proposed solution
Paradigm	Conventional biomedical model	Formulation, education and clinical application of a bio-psycho-socio-spiritual model
Research	Bio/psychological/medical, quantitative focused model	Study of integrated models; use of mixed method designs; incorporation of health economics
Education	Biomedical focus; most universities do not have integrative medicine education or training programs	Develop IMH curricula, engage universities to create IMH Chairs and clinical fellowships
Clinical guidelines	Focus on long-term medication and removal of symptoms; neglect of CAM and lifestyle considerations	Increase awareness of prevention, evidence-based CAM, psychosocial and spiritual aspects, lifestyle modification (included in clinical guidelines)
Public policy	Focus on treating acute problems; lack of awareness of evidence-based CAM and IMH model, and the impact of lifestyle modification on mental health	Engage policy makers to frame better health care decisions, shift focus toward an integrative "wellness" and prevention model

IMH, Integrative Mental Health; CAM, complementary and alternative medicine; EB, evidence-based.

medical practitioners. This is often difficult to find during brief appointments in managed-care settings. The twin issues of the inadequate therapeutic efficacy of many existing treatments, and the low priority on person-centered care in allopathic medicine, have led increasing numbers of individuals who see conventionally trained physicians to seek concurrent treatment from CAM practitioners. These may include TCM clinicians, naturopaths and herbalists, homeopathic physicians and others [18].

While use of CAM therapies for mental illness can be practiced as a stand-alone modalities, it is also a major element of the practice of "integrative psychiatry". More broadly, this falls under the umbrella of the paradigm of "integrative medicine" which has emerged in direct response to patients' needs and challenges in health care delivery since the 1990s. Integrative medicine reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of a diverse range of appropriate therapeutic approaches to achieve optimal health and healing [19]. Along the same lines, IMH (as one branch of Integrative Medicine) focuses on treating the "whole person" (i.e. views mind/body and its systems as interrelated), emphasizes the therapeutic relationship between clinician and patient, prioritizes healthy lifestyle, and addresses biological, psychological, cultural, economic and spiritual or religious factors that affect general well-being and mental health. IMH is an evidence-based, research-driven paradigm and model of care that seeks to provide the "best of both worlds" by acknowledging the legitimacy and value of conventional pharmacologic and psychotherapeutic interventions and combining such mainstream conventional with non-conventional treatments. The perspective of integrative mental healthcare is that this approach is legitimate and often necessary to adequately address mental illness. Conventional treatments encompass interventions such as psychopharmacology, psychotherapeutic techniques (such as cognitive behavioral therapy), and electroconvulsive therapy. While non-conventional treatments include approaches not presently used or endorsed by medical doctors or approaches practiced by a small minority of conventionally trained clinicians, such as CAM therapies or medicines, mind–body medicine, dietary and exercise instruction, and lifestyle modification. For a more detailed discussion of the history, conceptual foundations and methods of IMH cf. Lake et al. [20].

Proposed solutions

Transforming mental health globally is achievable. After comprehensive discussions between members of the International Network of Integrative Mental Health (INIMH), the American Psychiatric Association CAIM Caucus, in addition to integrative psychiatrists from several European and Asian countries, various challenges and solutions to advance IMH and better global mental health were recognized (Table 1). From these considerations, specific areas of focus were identified for discussion in this White Paper, namely:

- Incorporation of Lifestyle Medicine and evidence-based CAM into an integrative model of care.
- Advancement of an IMH research agenda with an emphasis on studying clinically relevant IMH via rigorous methodology, and translating and disseminating this for the benefit of clinicians and the public.
- The development of model curricula and training programs for clinicians and the creation of a new discipline of integrative psychiatry or allied-health IMH-specific practice (with potential regional-specific board certification).
- The creation of clinical guidelines for the practice of IMH.
- The formation and expansion of an international organization for advancing IMH.

Incorporating CAM into an integrative model of care

In addition to the current deficits of conventional mental healthcare (discussed above), patient motivation to use evidence-based CAM in an integrative model is another justification for this approach. CAM is widely used to treat or self-treat a range of mental health conditions, with large surveys confirming that consumer use has steadily increased over several decades [18]. The use of CAM to treat psychiatric disorders is growing rapidly. Survey findings suggest that 43% of patients with an anxiety disorder [21], and 53% with depression [22] use CAM. Seriously mentally ill individuals who use CAM therapies to treat their symptoms perceive such treatments as improving their physical, emotional, cognitive, social, and spiritual functioning, reducing symptom severity and promoting recovery and wellness [23]. Findings of a survey recently published by the Bravewell Collaborative [24] support that integrative care is often beneficial for common medical and psychiatric disorders, and highlights depression and anxiety as among the top five health concerns for which integrative medicine is most beneficial. While it is estimated that over half of all individuals diagnosed with a mood or anxiety disorder use CAM therapies to manage their symptoms, few disclose CAM use to their psychiatrist, family physician or other conventional healthcare provider [25]. This may lead to potential health risks [26]. Aside from common usage, burgeoning evidence is emerging for select complementary medicines and therapies for a range of mental health disorders (detailed in the next section).

Establishing a research agenda for Integrative Mental Health

Psychiatric research in the past 50 years has focused primarily on neurobiological mechanisms, biological medicine, and psychotherapeutic techniques. More recent research has explored lifestyle moderators of mental health, mind–body therapies, and natural products [15]. At present there is a scarcity of research on real-life, clinically relevant integrative approaches in medicine and psychiatry (i.e. approaches that combine multiple interventions in a personalized manner), with most studies employing reductive randomized control trial (RCT) designs to examine single interventions. Important advances in research and the clinical practice of psychiatry will take place when formal research methodologies permit the rigorous evaluation of complex interventions involving multiple therapeutic modalities (which mirrors true clinical practice) to treat real-world clinical populations.

A truly integrative research focus is urgently needed. While methodologically challenging, this approach may potentially elucidate the relative contributions of social, psychological, biological and spiritual factors in each unique patient's response to combined treatment modalities. Additionally, it may clarify the roles of genetic and biochemical individuality, ethnicity, family history and culture play in the pathogenesis of mental illness. Along these lines Hoenders et al. [27] recently reported on the advantages of an innovative research methodology that uses single-subject time series analysis to examine dynamic real-time relationships between symptom and treatment variables and interactions between particular treatment modalities in a patient receiving integrative treatment for anxiety. Findings of this "n-of-1" study revealed complex inter-relationships between the patient's symptoms and responses to treatment, positive feedback loops between lifestyle behaviors and outcomes, and differential effects of different treatment variables that would potentially have gone unnoticed in conventional group study designs.

Recent findings from economic modeling research suggest that while incorporating CAM into treatment may be costly, downstream savings can be achieved when integrative strategies yield positive long-term outcomes [28,29]. Similarly, systematic reviews of economic modeling studies on comparative cost-effectiveness of conventional versus CAM or integrative treatments of many health conditions (including mental illnesses) suggest that CAM or integrative treatment is cost-effective, or in some cases may provide cost savings [30]. Higher up-front costs may potentially be offset by improved work productivity and increased future Quality Adjusted Life Years (QALYs) [29]. A simple approach to evaluating socioeconomic benefits of using certain CAMs for e.g. depression, may involve comparing a standardized evidence-based nutraceutical (such as St John's wort) versus a synthetic comparator. For example, a recent Australia analysis by Access Economics [31] found that if Australians switched from their antidepressant to St John's wort they could save the country $50M per annum. While we are not suggesting St John's wort be substituted in place of conventional antidepressants at a macro level, this example of economic modeling encourages further exploration of potential cost-savings from use of CAMs that have equivalent efficacy to conventional treatments.

An important future research challenge will entail targeting specific integrative treatment strategies to discrete psychiatric disorders in the context of a broad-based bio-psycho-socio-spiritual model of care. Pragmatic trials comparing integrative models of treatment could be compared to conventional treatments to examine effectiveness, cost, and safety aspects. Clinical trials could study individually tailored multiple-component interventions with both quantitative outcome measures (e.g. using laboratory tests and validated psychometric scales) and qualitative experiences (e.g. subjective perceptions of improved functioning, placebo and nocebo effects). For example, a potential study could utilize a clinical sample of people with diagnosed major depressive disorder, comparing conventional practice i.e. "treatment as usual" to a complex treatment process using a decision tree algorithm employing specific evidence-based intervention combinations. Studies employing non-conventional treatments (e.g. natural products and mind–body practices) would be advised to use standardized forms of natural products or treatment protocols, for which there is extensive data on both safety and efficacy [14]. However it is acknowledged that clinical practice is as much an "art" as it is a "science", and individualized approaches by clinicians vary greatly. Thus the purpose of IMH research is to provide a guidepost for the optimal treatment of mental illness.

Initially, an important focus will be to gather data on IMH practices in current use and to examine health and economic outcomes when IMH protocols are employed. Aside from exploration of integrative models, other priority research areas that need to be addressed within IMH include: use of pharmacogenomic, epigenetic, and neuroimaging technologies to elucidate mechanisms of action; exploration of the impact of lifestyle modification (e.g. diet, exercise, stress management) on mental health as both preventatives and treatments; and the interactions between specific pharmaceuticals and CAM therapies and medicines (especially with respect to potentially beneficial synergistic effects or potentially dangerous adverse effects or toxic interactions). Financial grant support will be required to study these areas. Certain challenges however exist, that may potentially delay or interfere with research progress in IMH. These include:

(1) Difficulty in obtaining research funding for research of integrative models and RCTs utilizing an adequate patient sample size (costing approximately between US $500,000 and $2M per study).
(2) The need for consensus on how to standardize treatments, including botanicals and nutrient-based nutraceuticals, mind–body approaches, and somatic therapies
(3) The critical necessity to develop research methodologies that permit replication of significant findings (this may pose complex challenges in view of enormous variability in CAM treatment modalities and clinical IMH practices).
(4) The challenge in achieving a professional and respectable image of IMH research that is accepted within the mainstream biomedical research community, and avoids or corrects negative perceptions and stigma sometimes associated with research in CAM or integrative medicine.

Creating clinical guidelines for the practice of integrative mental healthcare

At present the practice of integrative medicine, including IMH, is highly varied and idiosyncratic. Such practice depends on the personal philosophies, values and clinical perspectives of its practitioners, and the goals of diverse training programs, clinics or hospitals where integrative treatment approaches are employed. However a recent survey [24] of integrative clinics and training programs suggests that integrative medicine is beginning to "mature" into a coherent set of values, model of care delivery, and clinical therapeutics as evidenced by: an increase in IMH academic literature, and the strong affiliations of integrative centers with hospitals, healthcare systems, and medical and nursing schools. IMH is fundamentally a collaborative enterprise fostering cooperation between patients and practitioners, and also among clinicians themselves.

According to the Horrigan and Abrams [24] survey, the most widely used model of integrative medicine in the U.S. is *consultative care* in which integrative clinicians work closely with

the patient's primary care physician to develop individualized treatment plans. The next most frequently used integrative care model (in centers surveyed) is *comprehensive care* in which an expert clinician manages a specific medical condition throughout the course of treatment. Finally, increasing numbers of integrative centers are using a *primary care* model in which family physicians, internists and nurses provide medical and mental health care as needed throughout the patient's life span [24]. In each of these models, a flexible patient-centered approach is one of the major strengths of integrative medicine and mental healthcare. In this context rigorous clinical assessment of the patient is always the crucial first step needed to ensure a comprehensive diagnostic formulation. All therapeutic interventions considered should be predicated on a thorough review of published research evidence supporting their use for a specific medical or psychiatric condition while taking into account risks of adverse effects, cost and availability. Hoenders et al. [32] have developed such an IMH guideline using an algorithm depicting the judicious safety-conscious application of CAM within psychiatry.

We believe that the clinical practice of integrative mental healthcare may rapidly evolve to a very high standard following establishment of *consensus-driven clinical guidelines*. These will provide a template for deriving safe and effective assessment and treatment approaches on an individualized basis of the best available research evidence on efficacy and safety for both conventional and CAM therapies. These guidelines should ideally cover:

- Structure and content of a rigorous integrative clinical evaluation.
- Selection and interpretation of diagnostic modalities.
- Overarching treatment protocols that address efficacy, safety and ethical concerns.
- Selection and prescription (or recommendations) of multi-modal therapeutic interventions.
- Assessment of therapeutic efficacy using standardized outcome measures.
- Structure of the therapeutic relationship and appropriate follow-up.

While diagnostic formulations based upon the Diagnostic and Statistical Manual (DSM) approach have serious limitations when approaching patient care from an integrative perspective, clinical practice guidelines based on DSM diagnostic categories do provide immediate clinical utility and a practical template for establishing well coordinated inter-disciplinary collaborative methods in assessment and treatment planning. Importantly, clinical guidelines congruent with DSM categories and methods will also provide a framework for developing economic models that can be used to evaluate the cost-effectiveness of integrative approaches. However it is also recognized that the individual manifestations of mental disorders can be viewed as occurring along a spectrum [33], and comorbidity is the rule, not the exception [34]. Thus, development of IMH clinical guidelines, which is a high-priority within the field, should take into account discrete and spectrum approaches to diagnosis and treatment.

Developing model curricula and training programs for clinicians

In the U.S. and other developed countries there are essentially two parallel systems of education as well as clinical care: conventional training programs in mental health disciplines; and CAM related fields such as naturopathy, herbal medicine, and TCM. Conventional medical training programs include limited coverage of the CAM or integrative approaches outlined above. Similarly, some CAM training programs generally minimize opportunities for education and research in the "basic sciences" emphasized in conventional allopathic medical training including biochemistry, psychology, pathophysiology, pharmacology and neuroanatomy (although this is not the case for naturopathic medicine, which also provides rigorous education in these areas). Successful implementation of interdisciplinary education and training programs will require a high level of collaboration between relevant academic centers, professional societies and clinicians from a range of disciplines. The successful implementation of an Integrative Medicine in Residency program demonstrates that it is possible to develop a rigorous training program in integrative medicine and import it into traditional residency curricula on a large scale [35]. Aside from university-based education, web-based education is an emerging application that may provide global education of IMH.

To advance the formation and application of IMH curricula we propose three strategic initiatives:

- Develop model curricula[1] integrated into pre-existing programs for students enrolled in medical, nursing, social work and psychology degree programs.
- Provide post-graduate level education and training for qualified medical and allied health clinicians.
- Provide venues and mentorship opportunities for IMH practitioners and trainees to learn and develop enhanced clinical skills.

Given the diversity of the emerging field of IMH and the broad range of interests and perspectives of post-graduate training programs in psychiatry, psychology and allied health fields, it is likely that programs will emphasize selected areas of specialization. Currently, on completion of formal training, clinicians often seek out continuing education and mentorship opportunities in areas such as mind–body medicine including mindfulness-based stress reduction, biofeedback or hypnotherapy; or in training on the prescription of nutraceuticals (botanicals and nutrients). In the same way that conventional post-graduate training programs (i.e. residency) in psychiatry incorporate training in advanced psychopharmacology, psychodynamic or cognitive behavioral therapy, we envision that post-graduate training programs in integrative mental healthcare will increasingly add validated CAM approaches.

> *The practice of IMH is not just the prescription of products or the utilization of CAM techniques; it involves a fundamental paradigm shift, moving away from a conventional focus of treating solely a person's acute symptoms, to addressing the physical, mental and environmental determinants of suffering, and ultimately transforming a person's life (within economic, cultural and spiritual/religious constraints) towards a life of health and fulfillment.*

As IMH is an emerging field, there remain a number of important future goals of curricula and training projects, these include:

- The creation of curricula with solid evidence-based foundations of scientifically validated approaches involving both CAM and conventional treatments.
- Developing highly interactive models that permit interpersonal contact between clinicians from diverse backgrounds potentially using sophisticated web-based media tools.
- Incorporating web-based tools that enhance therapeutic interactions and the potential to evolve IMH-focused "tele-psychiatry".
- Emphasizing interpersonal aspects of therapeutic interactions that will foster increased "openness, connectedness, and self-awareness" in clinical settings.

[1] Curricula would be modified depending on the specific discipline's licensing to prescribe certain interventions.

- Developing training tools that foster increased partnership between clinicians and patients when considering CAM or integrative therapies.
- Establishing and validating clinical practice guidelines for truly integrative clinics and in-patient services, including use of clinical algorithms and logic models to better understand parameters of integrative practice and evaluative measures to predict outcomes.

Creation of an international network for advancing integrative mental healthcare

The alarming statistics reviewed in this paper suggest that the majority of people suffering from mental illness in all world regions probably receive inadequate or no care, while some widely used treatments are supported by limited evidence of safety or efficacy. Survey findings support that integrative mental healthcare is already the de facto model of care practiced by some mental health professionals and pursued by the public at large [18]. However, while momentum is building, the emerging paradigm of IMH is limited by the absence of clear directions on priorities for research initiatives, education curricula, clinical practice guidelines, dissemination of knowledge to the public, and interfacing with government agencies to assist in shaping health policy.

The concept of a wellness-focused model of mental healthcare gained momentum in 2011 with publication of the UK Public Health White Paper emphasizing the fundamental importance of prevention and health improvement through lifestyle changes [36]. Findings of a recent survey of 29 integrative medicine centers and programs support that integrative approaches are perceived as successful when used to treat both medical and mental health conditions. The survey, published in February 2012, was commissioned by the Bravewell Collaborative [24], a philanthropic organization that works to improve healthcare standards in general and a thought leader in integrative medicine. Of note, 55% of survey respondents reported that depression and anxiety were successfully treated at their clinics using integrative therapies.

In response to urgent and increasing needs for improved mental healthcare globally, the marked limitations of conventional treatments and the conventional model of care, and growing evidence for the benefits of an integrated model of healthcare incorporating CAM therapies, in March, 2010, the *International Network of Integrative Mental Health* (ININMH) was established (officially launched in October 2012) to advance an agenda for transforming mental healthcare. ININMH (a non-profit organization) provides a framework for international networking and collaboration aimed at advancing an agenda of integrated, individualized, whole-person care based on a prevention and wellness model, using both mainstream and CAM approaches.

The founding board members of ININMH agreed that increased education, research, and developing models of care that address economic and social equality are essential for the success of a broad-based agenda aimed at transforming mental health care globally. An important priority of ININMH is developing advisory relationships with academic centers of excellence and government agencies in all world regions with the goal of facilitating dialogue in the private and public sectors that will foster progressive

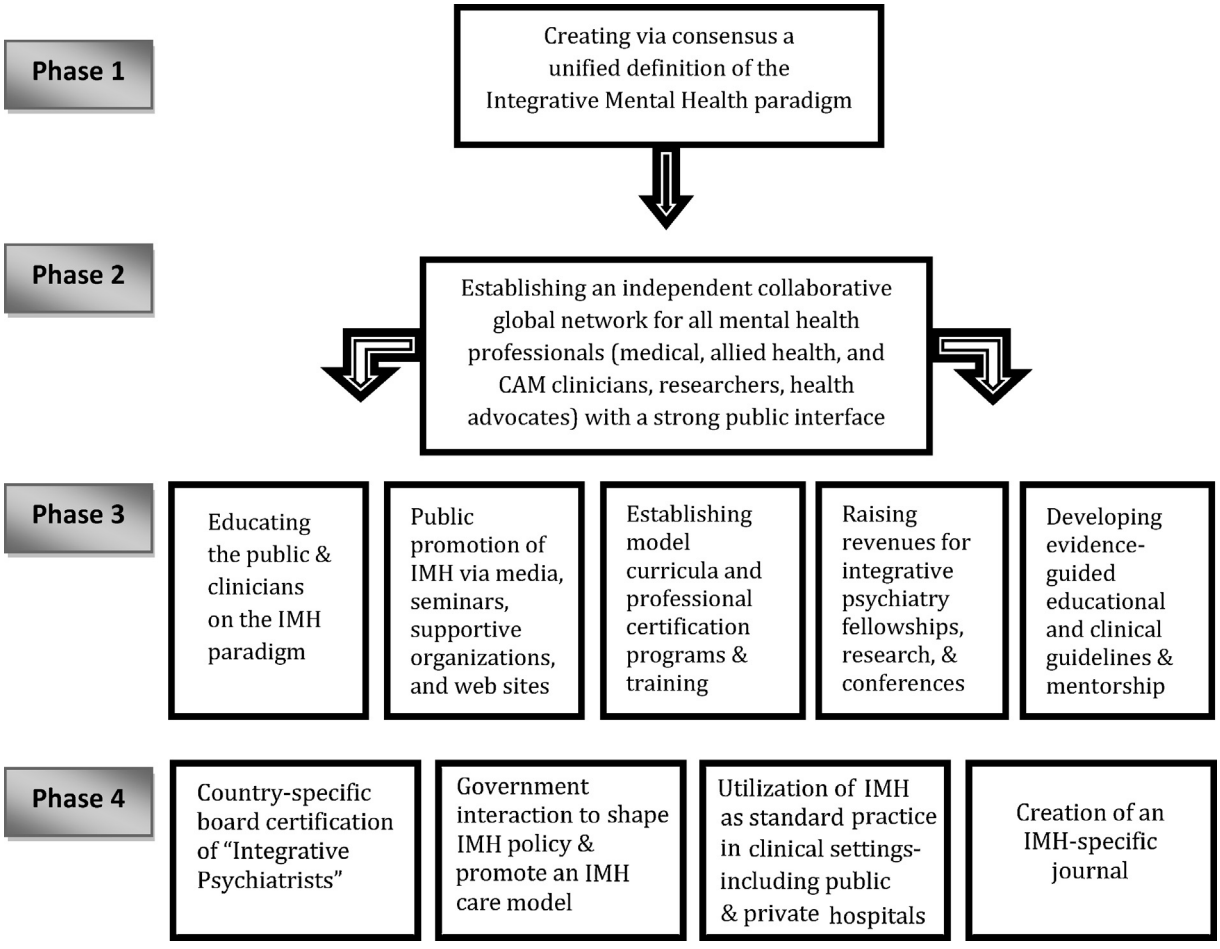

Fig. 1. Agenda to advance Integrative Mental Health.

reforms in mental healthcare policy on a global level and lead to increased uses of evidence-based IMH practices in psychiatric hospitals, outpatient mental health clinics, and primary care clinics. To achieve these broad goals several strategic initiatives will be pursued (Fig. 1). Phase 1 (a consensus definition of IMH) and phase 2 (establishment of an international IMH organization) are now complete and we are now entering into phase 3. The final phase advocated in this White Paper (phase 4), concerns four key aspirational goals.

The present formative phase of our work involves greater clinician and public engagement to further develop INIMH membership and increase global awareness and education of IMH. Vehicles through which this can be achieved include increased interaction with the media, universities and educators, like-minded organizations and websites, seminars and conferences, as well as researcher and academic networking. Another key element of this growth phase involves raising revenues needed to promote IMH globally. Following successful outreach and growth of IMH globally, a final phase will be required to solidify the field. This may involve the creation of a specialized journal on either integrative psychiatry or IMH. Currently, while CAM and psychiatry journals exist and integrative medicine journals are on the rise, no dedicated IMH journal has been established. Another key platform of urgently needed change in mental healthcare is region-specific board certification of integrative psychiatrists and IMH practitioners. These boards can set high education and training standards for fellowships and build a membership of highly educated and trained integrative psychiatrists and allied health practitioners. Finally, a major long term goal is the integration of IMH practices into public and private hospitals in the form of IMH-trained clinicians or allied health practitioners, moving toward a prevention and wellness model. This can be achieved only if IMH has a powerful lobbying presence with relevant government agencies to influence public health policy and promote a paradigm shift toward improvements in mental healthcare. The foundations of this strategic initiative to transform mental health care rest on a foundation of rigorous research, high-quality education, and a large vocal group of IMH clinicians and public supporters.

Summary and future direction

As outlined in this White Paper, there is an urgent unmet need for better solutions to mental illness on a global level. Mounting research evidence supports that psychosocial programs, lifestyle modification, mindfulness meditation and relaxation techniques, and select natural products are beneficial, safe and affordable interventions for common mental health problems that could easily be incorporated into existing mainstream mental health care models. This should result in improved outcomes and more long-term cost-effective care. Contemporary treatments and models of care do not adequately address the complex biological, social, cultural and spiritual dimensions of mental illness, and there is urgent need for preventive, integrative model of care that will lead to true healing and wellness.

While this White Paper is oriented more toward developed Western countries, the new IMH paradigm will become relevant on a global scale only by taking into account the diverse socio-cultural, economic and spiritual issues that affect mental health in less developed countries. Less developed world regions have limited access to many conventional treatments widely used in more prosperous nations. By the same token, cultural or ideological barriers may impede acceptance of an IMH model in less developed countries even when cost-effective integrative treatments become available. While it has not been our objective to discuss in detail, we believe that truly integrative models of care incorporating both traditional practices and allopathic therapies are now widely used in many countries, suggesting that IMH is rapidly emerging on a global scale.

The first step in transforming mental healthcare is to clearly define the new paradigm of "integrative mental healthcare" that is rapidly changing the way clinicians practice and patients seek care. We intend that the present White Paper, and previous work by Lake and Sarris has achieved this essential goal. This White Paper is envisioned as a "working document" intended to invite open dialogue, debate and consensus on conceptual foundations, research issues and clinical methods of IMH among mental health professionals. This paper is offered as a guide for future healthcare policy discussions in the hope of stimulating urgently needed advances in research and the day-to-day practical clinical work of mental health care. INIMH will provide a catalyst for the development of innovative programs for both graduate level and postgraduate education and training in integrative mental healthcare and the establishment of institution-sponsored fellowships in specialized clinical and research areas. Through networking and collaborative partnerships with institutions, clinicians, patients and advocates who share our vision in the coming decades, and for the benefit of all people who suffer with mental illness, INIMH will promote an agenda for transforming mental healthcare globally.

Authors' contributions

All authors contributed to the philosophical inception, writing, and proofing of the manuscript.

Conflict of interest

None declared.

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References

[1] Anderson P, Jané-Llopis E, Hosman C. Reducing the silent burden of impaired mental health. Health Promot Int 2011;26(Suppl. 1):i4–9.
[2] The WHO World Mental Health Survey Consortium Prevalence. Severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. JAMA 2004;291(21):2581–90.
[3] WHO. Mental and neurological disorders 'depression'; 2012 Available from:http://www.who.int/mental_health/management/depression/definition/en/.
[4] Kessler RC. The costs of depression. Psychiatr Clin N Am 2012;35(1):1–14.
[5] Mental Health America. Mental health ranking; 2012 Available from:http://www.nmha.org/go/state-ranking.
[6] Lund C, Breen A, Flisher AJ, Kakuma R, Corrigall J, Joska JA, et al. Poverty and common mental disorders in low and middle income countries: a systematic review. Soc Sci Med 2010;71(3):517–28.
[7] Wittchen HU, Jacobi F, Rehm J, Gustavsson A, Svensson M, Jonsson B, et al. The size and burden of mental disorders and other disorders of the brain in Europe 2010. Eur Neuropsychopharmacol 2011;21(9):655–79.
[8] Fournier J, DeRubeis R, Hollon S, Dimidjian S, Amsterdam J, Shelton R, et al. Antidepressant drug effects and depression severity: a patient-level meta-analysis. JAMA 2010;303(1):47–53.
[9] Thase ME. STEP-BD and bipolar depression: what have we learned? Curr Psychiatry Rep 2007;9(6):497–503.
[10] Velligan DI, Weiden PJ, Sajatovic M, Scott J, Carpenter D, Ross R, et al. The expert consensus guideline series: adherence problems in patients with serious and persistent mental illness. J Clin Psychiatry 2009;70(Suppl. 4):1–46. quiz 7-8.

[11] Herrmann N, Chau SA, Kircanski I, Lanctot KL. Current and emerging drug treatment options for Alzheimer's disease: a systematic review. Drugs 2011;71(15):2031–65.
[12] Kirsch I, Deacon BJ, Huedo-Medina TB, Scoboria A, Moore TJ, Johnson BT. Initial severity and antidepressant benefits: a meta-analysis of data submitted to the Food and Drug Administration. PLoS Med 2008;5(2):e45.
[13] Henderson DC. Managing weight gain and metabolic issues in patients treated with atypical antipsychotics. J Clin Psychiatry 2008;69(2):e04.
[14] Lake J. Textbook of integrative mental health care. New York: Thieme; 2007.
[15] Sarris J. Clinical Depression: An Evidence-Based Integrative Complementary Medicine Treatment Model. Alter Ther Health Med 2011;17:4.
[16] Walsh R. Lifestyle and Mental Health. American Psychologist 2011.
[17] Berk M, Sarris J, Cousan C, Jacka F. Lifestyle Management of Depression. Acta Psychiatr Scand 2013, in press.
[18] Barnes P, Bloom B, Nahin R. Complementary and alternative medicine use among adults and children. United States: National health statistics reports, National Center for Health Statistics; 2008. p. 12.
[19] Consortium of Academic Health Centers for Integrative Medicine; 2009.
[20] Lake J, Helgason C, Sarris J. Integrative Mental Health (IMH): paradigm, research, and clinical practice. Explore (NY) 2012;8(1):50–7.
[21] Bystritsky A, Hovav S, Sherbourne C, Stein MB, Rose RD, Campbell-Sills L, et al. Use of complementary and alternative medicine in a large sample of anxiety patients. Psychosomatics 2012 (Epub 2012/02/07).
[22] Wu P, Fuller C, Liu X, Lee HC, Fan B, Hoven CW, et al. Use of complementary and alternative medicine among women with depression: results of a national survey. Psychiatr Serv 2007;58(3):349–56.
[23] Sirois FM. Motivations for consulting complementary and alternative medicine practitioners: a comparison of consumers from 1997–8 and 2005. BMC Complement Altern Med 2008;8:16.
[24] Horrigan L, Abrams P. Integrative medicine in America: how integrative medicine is being practiced in clinical centers across the United States. Bravewell Collaborative; 2012.
[25] Thomson P, Jones J, Evans JM, Leslie SL. Factors influencing the use of complementary and alternative medicine and whether patients inform their primary care physician. Complement Ther Med 2012;20(1–2):45–53.
[26] Ernst E. Serious psychiatric and neurological adverse effects of herbal medicines – a systematic review. Acta Psychiatr Scand 2003;108:83–91.
[27] Hoenders HEHB, de Jong J, de Jonge P. Temporal dynamics of symptom and treatment variables in a lifestyle-oriented approach to anxiety disorder: a single-subject time-series analysis. Psychother psychosom 2012;81(4):253–5.
[28] Pelletier KR, Herman PM, Metz RD, Nelson CF. Health and medical economics applied to integrative medicine. Explore (NY) 2010;6(2):86–99.
[29] Herman PM, Craig BM, Caspi O. Is complementary and alternative medicine (CAM) cost-effective? A systematic review. BMC Complement Altern Med 2005;5:11.
[30] Herman PM, Poindexter BL, Witt CM, Eisenberg DM. Are complementary therapies and integrative care cost-effective? A systematic review of economic evaluations. BMJ Open 2012;2(5).
[31] Access Economics. St John's wort for depression. Economic Report for The National Institute of Complementary Medicine; August 2010.
[32] Hoenders HJ, Appelo MT, van den Brink EH, Hartogs BM, de Jong JT. The Dutch complementary and alternative medicine (CAM) protocol: to ensure the safe and effective use of complementary and alternative medicine within Dutch mental health care. J Altern Complement Med 2011;17(12):1197–201.
[33] Cassano GB, Frank E, Miniati M, Rucci P, Fagiolini A, Pini S, et al. Conceptual underpinnings and empirical support for the mood spectrum. Psychiatr Clin N Am 2002;25(4):699–712.
[34] Gadermann AM, Alonso J, Vilagut G, Zaslavsky AM, Kessler RC. Comorbidity and disease burden in the National Comorbidity Survey Replication (Ncs-R). Depress Anxiety 2012 (Epub 2012/05/16).
[35] Lebensohn P, Kligler B, Dodds S, Schneider C, Sroka S, Benn R, et al. Integrative medicine in residency education: developing competency through online curriculum training. J Grad Med Educ 2012;4(1):76–82.
[36] Bhui K, Sokratis D. Preventive psychiatry: a paradigm to improve population mental health and well-being. Br J Psychiatry 2011;198:417–9.