

INTEGRATIVE MIND-BODY-SPIRIT  
SOCIAL WORK INITIATIVE  
NADD DEVELOPMENT FUND REPORT  
2014

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This research is supported in part by the National Association of Deans and Directors of  
Schools of Social Work (NADD) Development Fund, 2013 – 2014

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## TABLE OF CONTENTS

Executive Summary	iv
Introduction	1
Section I: Systematic Literature Review of I-BMS Practices for Mental Health Conditions	3
Section II: Systematic Literature Review of I-BMS in Social Work Education	23
Section: III: Survey of MSW Programs	29
Section IV: Recommendations	37
References	38

# **Integrative Mind-Body-Spirit Social Work Initiative**

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## **Executive Summary**

Integrative body-mind-spirit (I-BMS) practice is an emerging approach that is not widely included in social work education, in contrast to other professional education programs. This project examined empirical support for I-BMS practices and the inclusion of this approach and related modalities in social work education. Funded in part by the NADD Development Fund, the authors 1) conducted a systematic literature review to identify empirical evidence regarding the effectiveness of I-BMS practices to address mental health conditions; 2) conducted a systematic literature review to explore the inclusion of the I-BMS approach and related modalities in accredited social work education programs; and (3) surveyed graduate social work programs to explore curricular efforts to incorporate I-BMS practice. Findings from these systematic literature reviews and the survey are the basis for the recommendations for graduate social work education made in this report.

### **Section I: Systematic Literature Review of I-BMS Practices for Mental Health Conditions**

A systematic review was conducted of 207 studies published between 2004 and 2013 that used randomized controlled trials (RCTs) to examine effectiveness of I-BMS interventions. Findings of this review provide strong evidence of effectiveness of I-BMS practices for a wide range of mental health diagnoses/problems.

Evidence for mindfulness-based interventions (e.g., BMSR, MBCT) is well-established for treating depression, stress, and anxiety, as well as other diagnoses such as sleep disorders/problems, substance abuse, schizophrenia, PTSD, and developmental disabilities. There is also strong support for the use of other I-BMS practices such as yoga, meditation, tai chi, acupuncture, and massage for a wide range of diagnoses and problems. However, more evidence is needed to determine the effectiveness of I-BMS interventions with eating disorders, ADHD, behavioral disorders, bipolar disorders, personality disorders, OCD, dementia, and somatization, as well as less studied I-BMS interventions such as dance and movement, reiki, and music therapy.

## **Section II: Systematic Literature Review of I-BMS in Social Work Education**

This systematic literature review aimed to identify the inclusion of I-BMS curricular content in specific undergraduate and graduate social work courses, uses of I-BMS approaches in the teaching and learning process, and social work faculty uses of this approach in their own professional development. Of the nineteen publications included in this review, only two documented courses that taught the I-BMS conceptual framework as an approach to practice. The remaining seventeen publications explored the use of I-BMS practices, modalities, or spirituality in teaching, learning, and faculty professional development. Mindfulness meditation and other contemplative practices (e.g., meditative dialogue, mindful reflection) were most commonly incorporated into social work courses to enhance students' professional development, spiritual development, cultivate practice skills, promote their self-care, and create a supportive learning environment. Faculty used mindfulness meditation, visualization, and a beginner's mind stance to enhance their teaching effectiveness.

Six of the nineteen publications described courses that aimed, in part, to promote students' spiritual development or support their spiritual wellness. Pedagogical strategies used in these courses included narrative practice reflecting teams, receiving a spiritual assessment completed by a classmate and conducting an assessment for a classmate, guiding students to explore existential questions, and self-care assignments.

As revealed by the survey of NADD member schools detailed later in this report, many more MSW programs are implementing I-BMS courses than are reflected in this literature review. As could be anticipated, most of these courses have not been documented in the social work literature. A broader range of I-BMS content, pedagogical strategies, and faculty development efforts are in use than this literature review could capture.

## **Section III: Survey of MSW Programs**

The survey for this project was conducted in the spring and early summer of 2014. It repeated questions asked in a similar 2011 survey, but went into more depth regarding the types of courses or continuing education workshops programs offered. Additionally, participating NADD member schools were contacted to collect relevant syllabi.

Of the 231 accredited MSW programs as of February 2014 invited to participate in the survey, 56 programs responded, a response rate of 24%. The 2011 survey had a response rate of 17%. When compared to the earlier survey results, the current survey findings showed that more programs are offering I-BMS courses, especially in Mindfulness related to Cognitive Behavioral Therapy.

Respondents indicated that a range of I-BMS courses were being currently offered their MSW programs. Contemplative practice and spirituality courses were most frequently reported (26.79% or 15 respondents); and mindfulness courses were the next most frequently reported (21.43% or 12 respondents). Other I-BMS courses offered by respondents focused on wellness, stress, Eye Movement Desensitization and Reprocessing (EMDR), complementary and alternative medicine (CAM), and body movement and manipulation, such as yoga, massage, and physical exercise.

In addition to I-BMS-focused courses, some respondents reported that I-BMS content was integrated into other MSW courses. The frequency of inclusion of topics was similar to the frequency of I-BMS course topics. Content on mindfulness, stress reduction, and wellness were most frequently integrated into courses.

Results also showed that among respondents whose programs had no I-BMS-related courses, 33% were not able to add more content to their curriculum, 24% lacked resources, 22% lacked faculty expertise, and 14% lacked curriculum support. A small percentage (7%) indicated that I-BMS course planning or development was in progress.

#### **Section IV: Recommendations**

Findings detailed in this report suggest both need and opportunity for social work education programs to incorporate the IMBS approach and related evidence-based practices into curricula. The substantial body of research that supports the effectiveness of I-BMS practices for addressing mental health conditions and promoting wellbeing demands that educational programs prepare students with the requisite knowledge, skills, and attitudes to effectively engage these practices, whether through direct practice, referral, advocacy on behalf of clients, policy advocacy, or research.

Given the role of social work graduate programs in preparing the profession's leaders, researchers, and educators, it is imperative that the I-BMS approach and practices be infused into graduate curricula. However, the MSW program survey results discussed in Section III of this report indicate that lack of faculty expertise and lack of resources and curriculum supports are impediments to including I-BMS related courses in educational programs. The recommendations for NADD that follow are made to support social work education programs and their faculty to engage in needed I-BMS curriculum innovations.

### **Recommendation 1: Council on Social Work Education I-BMS Work Group**

Advocate with the Council on Social Work Education (CSWE) to begin an I-BMS Work Group that would be tasked with the following:

1. Create a CSWE I-BMS Social Work Clearinghouse that would collect and develop curricular materials, including model I-BMS undergraduate and graduate curricula, syllabi, course modules, bibliographies, and other educational resources.
2. Solicit proposals for CSWE APM Faculty Development Institutes to enhance knowledge and skills for teaching the I-BMS approach and related practices.

### **Recommendation 2: Infusion of I-BMS in Deans and Directors Leadership Institutes**

Advocate for existing and future deans and directors leadership institutes to include the cutting-edge science that supports the I-BMS approach and practices as relevant to each institute's focus.

### **Recommendation 3: I-BMS Conference**

Collaborate with CSWE, NASW, and other appropriate organizations to host an Integrative Mind-Body-Spirit Social Work Initiative Conference. The purpose of the conference is individual and organizational capacity building and planning for advancing I-BMS in social work and social work education. Ideally a one-day event, participants would include social work educators and researchers, researchers from other disciplines, social workers, and practitioners from other fields engaged in I-BMS practice. The format could involve a keynote panel of researchers, practitioners and educators, followed by topic-specific concurrent sessions, and a closing session that all participants would attend focused on next steps for social work and social work education.

# **Integrative Mind-Body-Spirit Social Work Initiative**

## **Introduction**

Integrative body-mind-spirit (I-BMS) practice is an emerging paradigm that has been widely adopted in medicine and nursing education but less in social work education. This project examined empirical support for I-BMS practice and the inclusion of this practice approach and related modalities in social work education. The purpose of the project is to assist graduate social work programs to beneficially incorporate I-BMS practices in social work curricula. Funded in part by the NADD Development Fund, the authors 1) conducted a systematic literature review to identify empirical evidence regarding the effectiveness of I-BMS approaches to address mental health conditions; 2) conducted a systematic literature review to explore the inclusion of the I-BMS practice approach and related modalities in accredited social work education programs; and (3) surveyed graduate social work programs to explore curricular efforts to incorporate I-BMS practice. Findings from these systematic literature reviews and the survey are the basis for the recommendations for graduate social work education made in this report.

## **Background and Significance**

The profession has a long history of integrated practice, which includes holistic approaches that “recognize the complexity of interactions between human beings and their environment, and the capacity of people both to be affected by and to alter the multiple influences upon them, including bio-psychosocial factors” (International Federation of Social Workers, 2014). However, the integrated practice approach does not address the BMS connection. It also does not typically include modalities that are considered complementary, alternative, or integrative as defined by the NIH National Center for Complementary and Integrative (NCCIH, <https://nccih.nih.gov/health/integrative-health#cvsa>).

By contrast, integrative social work practices “assumes the dynamic balance of and interrelationship among mind, body and spirit as fundamental to health, mental health, and the well-being of individuals” (Lee et al., p. 44). This approach maintains a perception of self that connects individuals to a larger sense of themselves and their communities, in the context of their spirituality, that is the sense of meaning, purpose and relationship to the cosmos (Canda, 1999). Interventions may include a range of evidence-based and evidence-informed methods, such as acupuncture, meditation and body movement therapies, along with traditional social work methods. The I-BMS practice approach is holistic in a more complex and fundamentally different sense than integrated practice.



While some social work scholars are addressing BMS practice, social work education in the U.S. has yet to comprehensively and systematically consider the I-BMS approach in curricula and research. Several social work programs have developed courses that include BMS practices, such as mindfulness and yoga.

Advances in neuroscience (Froelinger, Garland & McClernon, 2012; Siegel, 2007; Siegel, Fosha, & Solomon, 2010), psychoneuroimmunology (Irwin, 2008; Irwin & Miller, 2007), psychosocial genomics (Garland & Howard, 2009; Rossi, 2002a, 2002b), and epigenetics (Curley, Jensen, Mashoodh, & Champagne, 2011) affirm the importance of I-BMS practice. Other health professions have made significant strides in integrative practice education and research.

In October 2012, the first International Congress for Educators in Complementary and Integrative Medicine was held at Georgetown University. Funded by a grant from National Center for Complementary and Alternative Medicine (which became the NCCIH in 2014), this conference brought together educators in health care fields to share research and best practices in the development, implementation, evaluation, and dissemination of integrative practice curricula and teaching methods. Although the conference had a stated focus on inter-professional education, fewer than five of more than 300 participants were social workers or social work educators (Raheim, personal observation).

NCCICH has documented that millions of people in the United States are seeking services from practitioners using BMS approaches and modalities. The use of these modalities is growing faster than social work education has kept pace. The widespread use of these practices, trends in integrative medicine, nursing and other health professions and advances in related research suggest a compelling need for social work education to systematically explore and incorporate I-BMS practice into graduate curricula and research. This Integrative Mind-Body-Spirit Social Work Initiative is designed to encourage graduate social work programs to appropriately and effectively incorporate the I-BMS approach and practices in social work curricula.

## Section I:

### Systematic Literature Review of I-BMS Practices for Mental Health Conditions

The objective of the systematic review is to identify the empirical evidence for the range of I-BMS approaches adopted in social work and healthcare practices.

#### Methods

Studies were identified through electronic databases including EBSCOhost, PubMed, Cochrane systematic review, Campbell Systematic Review, SSCI, and WorldCat Dissertations and Theses using the keywords holistic OR body-mind OR complementary and alternative OR mind-body OR spirit OR meditat\* OR relax\* OR yoga OR tai chi OR qi gong OR mindful\* OR therapeutic touch OR acupuncture OR Tai qi OR Chi gong OR Reiki OR Aromatherapy OR Body work OR Massage NOT back pain<sup>1</sup>. Inclusion criteria were: (1) Randomized controlled studies on mental health, psychosocial, and social work practice; (2) published articles in English; (3) published articles in peer-reviewed journals; (4) dissertations and thesis; and (5) articles published between January 2004 and December 2013. The exclusion criterion was study that tested interventions primarily for physical illnesses such as back pain. The review process consisted of title, abstract, and full article review; and review of the methodological rigor of each study in research design, sample characteristics, sampling method, fidelity, rigor of method, transparency, and reporting quality (Bronson & Davis, 2011). Content analysis was conducted on the research design, problem/diagnosis, sample, intervention types, outcome variables, and findings.

The search first yielded 2850 articles. Title review of these publications identified 422 studies that met the inclusion and exclusion criteria for this systematic review. After abstract and article review, articles that are systematic reviews or meta analyses, studies that were not random controlled trials or on non-related topics were excluded from this review. A total of 207 articles were included in this systematic review (see Figure 1).

Majority of studies focused on specific mental health diagnoses or problems including depression (34), stress (33), anxiety (24), sleeping disorders or problems (12), substance use problems (11), schizophrenia (11), post-traumatic stress disorder (PTSD) (8), developmental disabilities (7), eating disorders (4), attention-deficits hyperactive disorder (ADHD) (2), behavioral disorders (2), bipolar disorder (2), personality disorders (2),

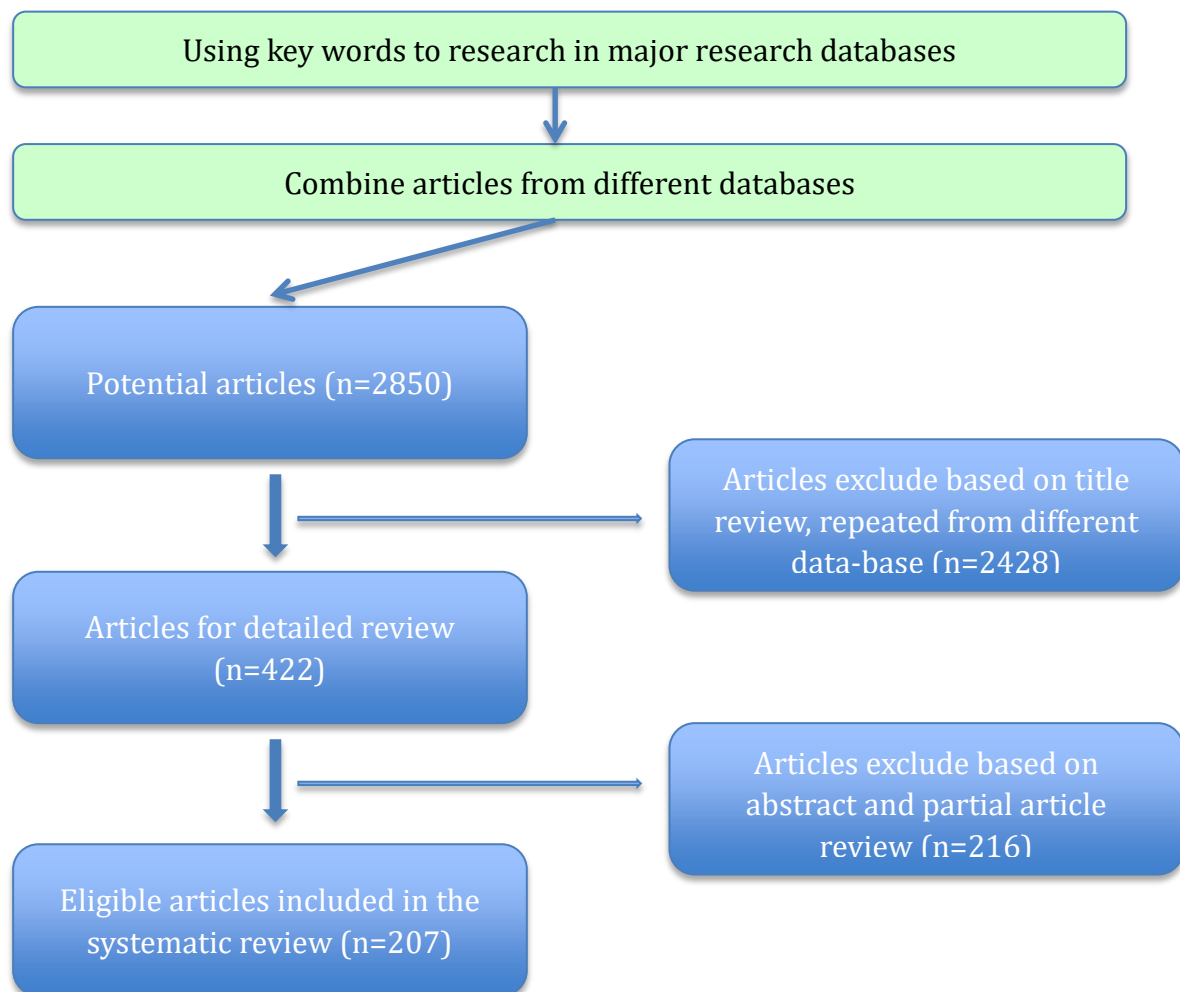
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<sup>1</sup> NOT Back pain was included in the search term because many studies on I-BMS were on back pain, which are a physical condition and not the focus of the current search.

obsessive-compulsive disorder (OCD) (2), dementia (2), and somatization (1). Other studies focused on general functioning such as mental health or psychological well-being (20), cognitive functioning (9), attention (7), emotion (5), neuro/physical health (5), and mindfulness state (4). Study participants included children/adolescents, older adults, college students, health professionals, caregivers, veterans, and refugees.

The most prominent interventions were Mindfulness-based stress reduction (BMSR) programs developed by Kabat-Zinn (30), Mindfulness-based cognitive therapy (MBCT) (26), mindfulness (26), yoga (32), meditation (17), relaxation (17), acupuncture and massage (14), Tai Chi (15), spiritual (7), dance and movement (5), reiki (3), music (2), mindful-based stretching and breathing (2), mindfulness acceptance and commitment (3), aromatherapy (4), and others such as metacognitive therapy, biofeedback, and mindfulness awareness in body-oriented therapy, mindfulness based relapsed prevention.

**Figure 1.**



## Results

**Specific Mental Health Diagnoses or Problems.** Among the 207 studies, 155 focused on specific mental health diagnoses or problems including depression (34), stress (33), anxiety (24), sleeping disorders or problems (12), substance use problems (11), schizophrenia (11), post-traumatic stress disorder (PTSD) (8), developmental disabilities (7), eating disorders (4), attention-deficits hyperactive disorder (ADHD) (2), bipolar disorder (2), personality disorders (2), obsessive-compulsive disorder (OCD) (2), dementia (2), and somatization (1).

**Depression.** Thirty-four studies on depression matched the inclusion criteria for this systematic review. Majority of I-BMS interventions utilized in these studies are mindfulness-related interventions including 18 studies on mindfulness-based cognitive therapies, two studies on non-CBT mindfulness-based interventions, and one study on Mindfulness-based Stress Reduction program developed by Kabat-Zinn. Other I-BMS interventions included yoga (5), Tai Chi (3), tango dance (1), relaxation training (1), spirituality teaching program (1), and massage (2).

All thirty-four studies were randomized controlled trials. The comparison conditions included cognitive-behavior therapy (CBT) (4), group exercise (1), group therapy (1), medicine (3), psychoeducation (1), health education (1), treatment-as-usual (TAU) (2), support group (1), attention-control activity (2), waitlist control (7), no service (2). The research design of nine studies was RCT comparing MBCT with treatment as usual (TAU) and TAU only. One study was RCT design comparing two body-mind-spirit interventions, tango dance versus mindfulness meditation. Eleven studies included a follow-up component while 13 studies did not include follow-up.

Majority of the study population were adults (32) with only two studies focusing on older adults (2). Five studies targeted depression for specific populations: women (2), university students (1), Chinese Americans (1), mothers with young infants who suffered from postnatal depression (1).

*Mindfulness-based cognitive therapies (MBCTs).* There are totally 18 mindfulness-based cognitive therapies and the majority of them showed positive effects on clients with depression.

Based on different comparison conditions, the effects of MBCT are:

Two mindfulness-based cognitive therapy (MBCTs) compared with CBT showed that although both groups reduced anxiety and depression, no significant differences were observed between MBCT and CBT.

Compared with psychoeducation, MBCT showed positive effects of reducing depression and improving psychological general well-being among participants.

There are three studies comparing MBCT to medication. One study of MBCT with comparison groups as medication and placebo demonstrated that for unstable remitters, compared with placebo, MBCT without antidepressants had the same effect with taking therapeutic dose of antidepressant medication in reducing the hazard of relapse prophylaxis in recurrent depression whereas for stable remitters there were no group differences in survival. The other study of MBCT with comparison groups as medication and placebo demonstrated that MBCT were more effective for improving wider-experiences and reducing rumination than the treatment of medication, while there was no group difference for improving curiosity and decentering ability. The third study of MBCT comparing only with medication revealed that MBCT were more effective than antidepressant medication on reducing residual depressive symptoms and psychiatric comorbidity and in improving quality of life in the physical and psychological aspects.

Eight studies on MBCT used TAU as comparison condition. Among these eight studies, findings of seven studies showed positive effects and one study did not indicate significantly difference with TAU. For those 7 MBCT treatments, they indicated significant reduction of depression symptoms, rumination, emotional reactivity to social stress, anticipatory anxiety, paranoia level, negative automatic thoughts, dysfunctional attitudes, and attempts to suppress; significant improved mindfulness and feeling of social acceptance; decreased residual depressive symptoms, longer time to relapse, lower level of relapse/recurrence and decreased numbers of patients meeting full criteria of depression. The only one study that showed no effect indicated that MBCT did not significantly change the participants' cortisol secretion patterns when compared with participants in TAU.

*Mindfulness-based Stress Reduction.* Compared with waiting list group, BMSR significantly increased the appraisals of positive emotion and activity pleasantness, as well as enhanced the participants' ability to boost momentary positive emotions by engaging in pleasant activities.

*Non-CBT mindfulness-based interventions.* Two non-CBT mindfulness-based interventions significantly improved depression, emotional health status, self-reported physical health, anxiety, and fatigue than control groups with no service or attention control treatment.

*Yoga.* Four yoga treatments showed positive effects while one showed no statistical significant difference with the control group. Compared to waitlist group or group without service, subjects in the yoga condition showed significant decreases in self-reported depressive symptoms, as well as state anxiety and trait anxiety. Compared to

the comparison treatment of attention control, yoga treatment demonstrated unique trend in decreased ruminations. Compared to group exercise, yoga showed significant reduction in depression. However, yoga with psychoeducation versus group therapy with psychoeducation showed that although all groups had improvement in symptom levels, there were no significant differences in two groups on depression outcomes.

*Tai Chi.* There were three studies on Tai Chi. One Tai Chi treatment significantly improved depression, health-related quality of life, and memory as well as decreased inflammatory marker for older depressed participants. Another Tai Chi study specifically used Chinese Chan-based mind-body intervention. Compared to CBT, this intervention led to a significant reduction in depressive mood and psychiatrist ratings on overall sleep problems, improved total sleep time after treatment, as well as a significant increase in positive affect. The third study on Tai Chi treatment, however, did not show significant difference with the no-service control group.

*Tango dance.* Tango dance was as efficacious as meditation in reducing depression, while only tango dance significantly reduced stress levels.

*Relaxation.* Compared with CBT, relaxation training did not show significant improvement for depression and anxiety.

*Spiritual Teaching.* Spirituality Teaching Program significantly decreased the severity of depression in participants than participants of the no-service control group.

*Massage.* Compared with support group, Infant Massage showed significant decreased postnatal depression of mother and increased sensitivity of interaction with babies after one year. Compared with routine unit care, acupuncture with massage significantly reduced fatigue and depression.

*Stress.* Thirty-three studies focusing on stress matched the inclusion criteria for this systematic review. Again, majority of I-BMS interventions utilized in these studies are mindfulness-related interventions including 14 studies on Mindfulness-based Stress Reduction program developed by Kabat-Zinn, two studies on mindfulness-based interventions; one study on internet-based mindfulness stress management, 1 study on mindful meditation, 1 study on mindful yoga, and 3 studies on meditation. Other I-BMS interventions included yoga (3), dance and movement therapy (3), relaxation training (2), acupuncture (1), biofeedback therapy (1), and Chan-based mind-body intervention, which is a form of Tai Chi (1).

All studies were RCTs using waitlist control (12), TAU control (2), placebo control (1), not treatment control (5), and active control (13) as comparison conditions.

Thirty-one studies showed positive effects on stress. The other two studies showed no significant effect on stress: one study on yoga versus physical exercise and one study on BMSR (breathing meditation-based stress reduction) intervention.

The study populations were adults, aging adults, working adults, college students, school-aged students, school-aged girls, teachers, health professionals, medical students and family caregivers with stress related problems.

*MBSR.* Studies used MBSR showed positive effects on mental health including mental distress, perceived stress, emotional exhaustion, mindfulness, burden, rumination, relaxation, hostility, empathy, binge eating and depersonalization trend sense of personal accomplishment; general subjective wellbeing of social support, sleep quality, life satisfaction, focused attention and working memory capacity, occupational self-compassion, less negative coping; and physical health including ventilation, breathing frequency, energy, pain, salivary cortisol reactivity to stress, heart rhythm coherence ratio of heart rate variability.

*Mindfulness-related interventions.* Mindfulness had effects on perceived stress, anxiety, positive and negative affect, but there is no effect on changing the resting levels of stress hormones or physical functioning.

The internet-based mindfulness stress management showed significant effect on reducing stress, which is compatible with traditional mindfulness stress management intervention, but has no effect on physiology indicators.

Mindfulness meditation showed positive effects on stress symptoms, positive symptom distress and global severity index.

Mindful yoga for school-aged girls showed positive effects on self-esteem, self-regulation, and appraisal of stress and frequency of coping.

*Meditation.* Meditation showed positive effects on stress, forgiveness, rumination, general mental health, sleepiness, habituation rates, and brain Integration.

*Yoga.* Yoga showed positive effects on general stress level, perceived stress, burnout, anxiety and depression, insomnia severity, pain, and overall health status.

*Dance and movement related interventions.* Dance and movement related interventions had positive effects on negative stress management strategies, positive/negative affect, psychological distress, Obsessive-Compulsive, interpersonal sensitivity, depression, anxiety, phobic anxiety, psychoticism, perceived Stress and general life quality.

*Relaxation training.* There are three subtypes of relaxation training used: stretch-release relaxation, cognitive relaxation, and relaxation response (RR). Relaxation training had positive effects on state anxiety, general health, and simple attention task. Cognitive relaxation had greater effects than stretch-release relaxation training.

*Acupressure.* Acupressure showed effects on reducing heart rate, increasing heart rate variability, reducing skin conductance response, reducing subjective stress scores, and increasing correct answers.

*Biofeedback.* Biofeedback therapy produced a relaxation response on participants.

*Chan-based mind-body intervention.* Compared with CBT and waitlist control groups, the Chan-based mind-body intervention significantly reduced the intake of anti-depressants, and significantly improved depression-related symptoms including difficulty in concentration and problems in gastrointestinal health and overall sleep quality.

*Anxiety.* Twenty-four studies on anxiety matched the inclusion criteria for this systematic review. I-BMS interventions included were relaxation technique (5), mindfulness-based stress reduction (4), mindfulness-based cognitive therapy (1), mindfulness-based training program (2), mindfulness and acceptance based strategies (2), acupressure and massage (3), yoga (2), multi-faith spiritually based intervention (1), exposure and applied relaxation (1), music (1), aromatherapy (1), and metacognitive therapy (1).

The research designs of 19 studies were RCTs using CBT (8), placebo group (2), medication (1), stress management education (1), exposure (1), usual service (1), no service (4), waiting list (1) as comparison conditions. The other 5 studies were RCT design comparing two I-BMS interventions; they are mindfulness versus relaxation (2), metacognition versus relaxation (1), chair massage versus relaxation (1), music versus relaxation. Twelve studies had follow-up design while 12 did not have a follow-up component.

The study populations were adults (22) and adolescents (2). Four studies targeted anxiety for specific populations including parents with children having surgery (1), women undergoing breast core-needle biopsy (1), and young adolescent musicians before performance (2).

*Mindfulness-related interventions.* Participants of all four programs of mindfulness-based stress reduction (BMSR) showed positive outcomes. Compared to their control groups, BMSR significantly reduced anxiety, stress, depression, social anxiety, worry, and comorbid disorders; as well as improved the remission rates, mood, functionality and quality of life.



Mindfulness-based cognitive therapy showed significantly positive effect of lowering health anxiety for participants and such an effect was maintained at one-year follow up.

Two mindfulness-based training programs showed significantly positive effects, such as greater improvement on emotional meta-cognition, somatic and autonomic regulation (comparing to control group receiving relaxation treatment), as well as anxiety, depression and functionality (comparing to control group without service).

Two mindfulness- and acceptance-based therapy showed positive effects on subjects. One study demonstrated that mindfulness- and acceptance-based therapy and cognitive behavior group therapy were both more effective than no service for reducing social anxiety, rumination, depression, as well as improving cognitive appraisal, mindfulness, acceptance, valued living, and group cohesion. One study demonstrated that participants receiving mindfulness- and acceptance-based therapy had greater improvement on outcomes of generalized anxiety disorder than participants receiving relaxation treatment.

*Relaxation programs.* Five relaxation programs showed no positive effects on subjects. One study of relaxation treatment for women undergoing breast core-needle showed a reduction in women's anxiety. However, this effect was significantly lower than the effect from medication treatment. Three studies comparing the effects between CBT and relaxation were in favor of CBT. CBT was associated with greater reduction of anxiety, long-term improvement, or lower dropout rates. Finally, one study showed that there were no statistically significant different outcomes between CBT and the relaxation groups. One study compared worry exposure and relaxation and demonstrated that there were no statistically significant different effects on anxiety and depression between the two treatments.

Exposure and applied relaxation showed smaller effects on social phobia than the control group receiving cognitive therapy.

*Acupressure and massage treatments.* Among the three RCT studies, two acupressure and massage treatments showed positive effects on subjects. Comparing to placebo group, acupressure significantly reduced anxiety of subjects in the treatment group. Chair massage significantly reduced trait and state anxiety than relaxation and the positive effect on state anxiety lasted for at least 24 hours. However, one therapeutic massage treatment showed no statistically significant difference in outcomes from group without treatment.

*Yoga.* Two yoga treatments for adolescent musicians showed that, comparing to no service, yoga could significantly reduce adolescent musicians' music performance anxiety, general anxiety/tension, depression and anger.

*Multi-faith spiritual-based intervention.* Multi-faith spiritual-based intervention showed positive effects as efficacious as CBT by reducing psychic and somatic symptoms and depressive symptoms, and also improving social adjustment.

*Aromatherapy.* The study on aromatherapy showed no effects between pre-and post on state anxiety levels.

*Music therapy.* Music therapy showed greater effects of reducing state anxiety, trait anxiety, dyspnea, systolic blood pressure, diastolic blood pressure, pulse rate and respiratory rate than progressive muscle relaxation.

*Metacognitive therapy.* Metacognitive therapy indicated superior effects on generalized anxiety disorder to applied relaxation.

In sum, with the exception of relaxation treatment and aromatherapy, all other I-BMS interventions showed positive effects on subjects with anxiety problems.

*Sleeping disorders or problems.* Twelve studies related to sleep matched the inclusion criteria for this systematic review. These studies focused on insomnia, sleepiness, sleep quality, sleep and health, sleep and depression. I-BMS interventions included were acupressure (3), Tai chi (3), body-mind bridging (1), yoga (1), BMSR (1), MBCT (1), music (1), self-relaxation training including progressive muscle relaxation and meditation (1).

All studies were RCTs using waitlist control (1), TAU control (1), placebo control (3), no treatment control (3), and active control (4) as comparison conditions. Findings of all twelve studies were positive on outcomes related to sleep.

The study populations were older adults, veterans, parents of children before surgery and general adults with sleep related problems or complaints.

Acupressure showed statistically significant effects on sleep quality, sleep disturbances, PTSD symptoms, cognitive functioning, sleepiness, and fatigue. BMSR achieved comparable magnitude of positive effects of pharmacotherapy on decreasing sleep onset latency (SOL), decreasing insomnia severity, improving sleep quality, total sleep time, and sleep efficiency. Body-mind bridging, which is a novel mindfulness awareness intervention, improved sleep disturbance, PTSD symptoms, and overall mindfulness. Regarding music therapy, participants had more deep sleep, improved self-reported sleep quality, and lower heart rates. Tai chi showed positive effects on subjective and objective sleep quality, sleep-onset latency, sleep duration, sleep efficiency, sleep disturbances, physical and mental health. One study specifically used Tai Chi Chih, which is a “westernized and standardized version of Tai Chi, consisting of 20 simple and separate moves” (Irwin, Olmstead, & Motivala, 2008). The Tai Chi Chih had significant

positive effects on insomnia. The self-relaxation training including progressive muscle relaxation and meditation improved sleep quality, physical health perception, mental health perception, daytime dysfunction and depression state. The mindfulness-based cognitive therapy decreased wake time and increased sleep efficiency while had no effect on sleep depth.

***Substance use problems.*** Eleven studies on substance abuse matched the inclusion criteria for this systematic review. I-BMS interventions included were yoga (2), mindfulness training (2), ear acupressure (2), mindful awareness in body-oriented therapy (1), Vipassana meditation (1), mindfulness-based relapsed prevention (MBPR) (1) manual-guided spiritual guidance (1), and relaxation training (1).

Research designs were RCTs using CBT (2), support group (1) no service (2), TAU (6) as comparison conditions. Two studies had follow-up designs while the other nine without.

The study populations were all adults, among whom the special populations were Chinese women (1) and incarcerated population (1).

One yoga treatment showed significant improvement in mood status, quality of life for women undergoing heroine detoxification. Sudashana Kriya Yoga significantly decreased participants' depression.

Compared to support group, mindfulness training significantly reduced stress, thought suppression, increased physiological recovery from alcohol cues, and modulated alcohol attentional bias for people with alcohol dependence. Compared to CBT, mindfulness significantly reduced psychological and physiological indices of stress for subjects who have substance abuse problems.

Compared to treatment as usual, two ear acupressure treatments showed greater reduction in craving, anxiety, and other addiction-related symptoms.

Compared to TAU, mindfulness awareness in body-oriented therapy significantly reduced days on substance use, improved eating disorder symptoms, depression, anxiety, dissociation, perceived stress, physical symptom frequency and bodily dissociation. These positive effects were maintained at 9 month follow-up.

Compared to TAU, Vipassana meditation significantly reduced alcohol, marijuana and crack cocaine use, as well as decreased alcohol-related problems and psychiatric symptoms.

Compared to TAU, mindfulness-based relapsed prevention showed significantly lower rates of substance use, as well as decrease in craving and increase in acceptance and acting with awareness.

However, manual-guided spiritual guidance did not show improvements on depression and anxiety for people with addiction problems. Relaxation treatment was less effective than CBT on depression reduction for alcohol dependent individuals with elevated depressive symptoms.

In sum, most treatments showed positive effects on subjects with the exception of manual-guided spiritual guidance and relaxation treatment.

***Schizophrenia.*** Eleven studies on schizophrenia matched the inclusion criteria for this systematic review. I-BMS interventions included were progressive muscle relaxation (3), yoga (3), yoga as an add-on to psychotic treatment (1), Tai Chi (1), mindfulness based cognitive therapy (1), mindfulness group (1), and mindfulness-based psychoeducation (1).

All studies were RCTs using waiting list control (4), treatment as usually control (TAU) (1), placebo control (1), no treatment control (4), and active control (1) as comparison conditions.

The study populations were all adults with the diagnosis of schizophrenia or psychotic symptoms. Ten of the eleven studies showed positive effects on improving symptoms of schizophrenia. One study showed no significant difference between the mindfulness group and the control group.

The progressive muscle relaxation program (PMRP) showed statistically significant effects on state anxiety, psychological stress, and subjective well-being. Yoga showed positive effects on improving motor functioning, positive and negative symptoms, psychological stress, subjective well-being, paranoia, depression and also physical well-being. Tai chi has positive effects on preventing deterioration in movement coordination and improving interpersonal functioning, but showed no effect on negative symptoms. Mindfulness-based psychoeducation program enhanced illness insight, reduced symptom severity, improved functioning, and decreased rehospitalization rates and length. Mindfulness-based cognitive therapy had significant effect on the participants' ability to respond mindfully to stressful internal events. The yoga as an add-on to psychotic treatment showed statistically significant effects on psychopathology, social and occupational functioning, and quality of life.

**PTSD.** Eight studies focusing on PTSD matched the inclusion criteria for this systematic review. I-BMS interventions included were spiritually based intervention (2), mindfulness-based stretching and deep breathing exercise (2), Mindfulness (1), transcendental meditation (1), BMSR (1), and relaxation training (1).

All studies were RCTs using waitlist control (1), TAU control (1), no treatment control (4), and active control (2) as comparison conditions. The study populations were veterans, nurses, Congolese refugees and other adults with PTSD diagnosis/symptoms. Six out of eight studies had positive effects on the outcomes related to PTSD. One study showed no effect and one study showed smaller effect than comparison groups.

Spiritually based interventions showed positive effects on reducing PTSD symptom severity, psychological distress and increasing quality of life. Mindfulness-based stretching and deep breathing exercise had positive effects on decreasing PTSD symptoms and severity, and increasing cortisol levels. Mindfulness intervention showed no difference compared with psychoeducation although it showed temporary reduction of PTSD symptoms. Transcendental meditation reduced PTSD symptoms on Congolese refugees. BMSR improved PTSD symptoms, mental health, health-related quality of life, depression, and mindfulness skills. Relaxation training showed poorer outcomes on severe re-experiencing symptoms compared with the control groups of Exposure therapy and Eye Movement Desensitization & Reprocessing (EMDR).

**Developmental disorders.** Seven studies on development disorders, including autism, intellectual disability, and learning disability matched the inclusion criteria for this systematic review. I-BMS interventions included were Qigong (3), mindfulness-based therapy (3), mindfulness and skills-based parent training programs (1).

The research designs were RCTs using progressive muscle relaxation (1), behavior skills (1), and waiting list (5) as comparison conditions. Two studies had follow-up design while the other 5 studies did not have follow-up.

The study populations were children (3), adolescents (1), and adults (3). Specific targeted population were individuals with autism (4), individuals with learning disability (2) and parents of children with autism (1).

All treatments showed positive effects on subjects with developmental disorders.

Two studies on Qigong comparing with waitlist groups showed significant improved measures on autism symptoms, higher self-regulation responses and significant classroom improvement of social and language skills. One Qigong treatment demonstrated reduced autistic symptoms, greater improvement in self-control, increased control of temper and behavior than Progressive Muscle Relaxation.

One mindfulness-based therapy significantly decreased depression, anxiety, rumination and increased positive affect for adults with autism spectrum disorder. One mindfulness-based therapy significantly reduced physical and verbal aggression for individuals with mild intellectual disabilities. One mindfulness-based therapy significantly improved externalizing behavior, oppositional defiant problems and conduct problems for adolescents with learning disabilities.

Compared with behavior skills treatment, mindfulness parent-training significantly reduced stress and improved general health status for parents of children with autism.

**Eating disorders.** Four studies on eating disorder matched the inclusion criteria for this systematic review. I-BMS interventions included were yoga (3) and spiritual group (1).

The research designs were RCTs using standard care (1), cognitive dissonance based treatment (1), cognitive and emotion support group (1) and waitlist control (1) as comparison conditions. Only one study used follow-up design while the other three studies did not.

The study populations were children (1) and adults (3). The majority of all the treatments showed positive effects.

Two yoga treatments showed significant effects on improved eating disorder symptoms and physical activity as well as reduced food preoccupation, binge eating, anxiety and depression. However, one yoga treatment did not have effects on disordered eating, driving for thinness, and body dissatisfaction when compared to cognitive dissonance based treatment.

The spiritual group showed significantly greater improvements on psychological disturbance, eating disorder symptoms, and spiritual well-being than the cognitive and emotion support groups.

**ADHD.** Two studies on ADHD matched the inclusion criteria for this systematic review. I-BMS interventions included were relaxation with education support and yoga. The research designs were RCTs using CBT and cooperative activities as comparison conditions. One study had a follow-up design while the other did not. The study populations were medication-treated adults with ADHD and boys with ADHD. Relaxation with education support did not lower scores on ADHD scale as much as CBT for adults. The results of yoga treatment on ADHD were mixed. Compared to cooperative activities, yoga treatment significantly improved the state of opposition, emotional lability, and restless/impulsivity while did not improved hyperactivity, anxious/shy, and social problems in boys.

***Behavioral disorders.*** Two studies concerning kids' problematic behaviors, including aggression and behaviorally inhibited and activated situations, matched the inclusion criteria for this systematic review. I-BMS interventions included were massage and preventive mind-body based stress reduction.

The research designs were RCTs using listening to story and no service as comparison conditions. One study had follow-up design while the other did not.

The study population was children.

Both treatments showed positive effects. Massage treatment significantly reduced aggression, somatic problems, social problems, and attention problems for children with behavior problems and such effects were maintained at 12-month follow-up. Preventive mind-body based stress reduction reduced stress for participating children, especially among children with high behavior inhibitory system.

***Bipolar disorder.*** Two studies on bipolar disorder matched the inclusion criteria for this systematic review. I-BMS interventions used in both studies was mindfulness-based cognitive therapy (MBCT).

The research designs were RCTs using treatment as usual and waitlist as comparison conditions. None of them had follow-up design. The study population was adult.

Both of the treatments showed positive effects. Compared to treatment as usual, treatment as usual adding MBCT improved the symptoms of depression and mania, decreased total number of recurrence over the 12-month period, and increase the time to first recurrence of a mood episode. Compared to waiting list group, MBCT led to improved anxiety and reduced residual depressive symptoms among subjects.

***Personality Disorders.*** Two studies focusing on personality disorders matched the inclusion criteria for this systematic review.

All studies were RCTs with adult population. One study on borderline personality disorder used mindfulness self-focused attention as treatment condition and ruminative self-focused attention as comparison condition.

The mindfulness self-focus treatment showed effects on longer distress tolerance and lower levels of anger compared with ruminative control condition. The other study was about distressed (Type D) personality traits using BMSR and waitlist control. BMSR had positive effects on reducing negative affect and social inhibition. BMSR may also reduce characteristics of the distressed personality type through the mechanism of increased mindfulness.

**OCD.** Two studies on obsessive-compulsive disorder the inclusion criteria for this systematic review. I-BMS interventions included were acceptance and commitment therapy (ACT) versus progressive relaxation therapy (PRT), and psychoeducation with relaxation training (1). They are all RCTs.

The ACT produced greater changes over PRT on OCD severity, depression, quality of life, and treatment refusal. ACT also had more clinically significant changes in OCD severity than PRT. In the second study, relaxation training plus psychoeducation treatment was compared with CBT plus structured family intervention. The result showed that relaxation training group was associated with lesser change in OCD, child-reported functional impairment, and parent-reported accommodation of symptoms, than CBT control. In summary, relaxation training is not as effective as other interventions like CBT and ACT for clients with OCD.

**Dementia.** Two studies on dementia matched the inclusion criteria for this systematic review. I-BMS interventions included were dance and movement therapy and aromatherapy and hand massage.

The research was RCT with follow up design using no service (1) and placebo control (1) as the comparison conditions. The study population was older adults with dementia.

The dance and movement therapy showed improvement for visuospatial ability planning and self-care ability for older adults with dementia.

Aromatherapy and hand massage showed there was no significant effect for reducing disruptive behaviors of people with dementia.

**Somatization.** There is only one study on somatization disorder that matched the inclusion criteria for this systematic review. The study was a RCT with mindfulness therapy as treatment condition and TAU control as the comparison condition. Mindfulness therapy showed positive effects on somatization symptoms.

**General Functioning.** Forty-nine studies focused on general functioning such as mental health or psychological well-being (20), cognitive functioning (9), attention (6), emotion (5), neuro/physical health (5), and mindfulness state (4).

**Mental health and psychological well-being.** Twenty studies related to general mental health and psychological well-being with no specified DSM disorders matched the inclusion criteria for this systematic review. I-BMS interventions included were Tai Chi Qigong (1), Reiki (2), mindfulness-based intervention (2), BMSR (2), yoga (7), transcendental meditation (1), mindfulness-based meditation (1), massage (1), aroma massage (1), aroma therapy (1), and “mental silence” approach to meditation (1).



All studies were RCTs using waiting list control (5), active control (11), no treatment control (2), TAU (1), and placebo control (1) as comparison conditions.

The study populations were youth/adolescent, woman, child-care workers, and adults. All I-BMS interventions showed positive effects on study outcomes.

Yoga were compared with physical exercise, relaxation programs, and showed positive effects on anxiety, depression, negative affect, mood, anger regulation, fatigue/inertia, reducing burden, general mental health, memory performance, sleep disturbance, menstrual pain, low back pain memory performance, as well as improving quality of life. Mindfulness-based intervention showed positive effects on mindfulness, perceived stress, anxiety and depression. Reiki had trends to decrease illness symptoms and stress scores and improve overall mood. Tai Chi Qigong significant improved quality of life, perceived social support. Transcendental meditation program significantly improved psychological distress, anxiety, depression, anger/hostility, and coping. BMSR showed positive effects on perceived stress, vital exhaustion, positive mood state, quality of life, mindfulness, anxiety, depression, and somatic distress, and increased self-esteem and sleep quality. Mindfulness meditation had effects on perceived stress, positive mood state, distractive and ruminative thoughts/behaviors. Massage was effective on anxiety while aromatherapy had an effect on Menopause symptoms than odorless massage. Aromatherapy showed significant effects on anxiety and depression. Mental silence-orientated meditation (Sahaja Yoga meditation) was showed to be a safe and effective strategy for dealing with work stress and depressive feelings.

**Cognitive function.** Nine studies on cognitive function matched the inclusion criteria for this systematic review. I-BMS interventions included were yoga (3), mindfulness meditation (2), Tibetan sound meditation (1), passage meditation (1), mindfulness-based stress reduction (1), and Tai Chi (1).

The research designs were RCTs using physical activity (1), aerobic exercise (1), education & respite (1), stretching and toning exercise (1), and waiting list group (5) as comparison conditions. Three studies had follow-up design while six without.

The study populations were adults (6), older adults (2) and children (1). Three studies targeting cognitive function for special populations, they are dementia caregiver (1), health professionals (1), and Chinese subjects (1).

The majority of treatments targeting cognitive function showed positive effects.

Only one yoga program revealed significant improved cognitive performance and working memory compared with aerobic exercise. However, compared to waiting list group, Yoga for seniors showed positive effects of physical measures and quality of life while no significant difference on cognitive and alertness outcome. Compared to physical

activity, yoga did not show significant differences in cognitive performance for participating children.

Two mindfulness meditation significantly lowered cognition rigidity and improved memory and behavior problems than comparing groups.

Tibetan sound meditation significantly improved cognitive function for participants, including short term memory, verbal memory, processing speed; cognitive abilities, mental health, and spirituality.

Passage meditation showed favorable treatment effects of compassionate love, altruistic actions, perspective-taking, and forgiveness on health professionals.

BMSR showed positive effects of executive function and mindfulness for older adults than waitlist group.

With stretching and toning exercise as comparison group, only the experiment Tai Chi treatment was associated with stable dementia status for Chinese subject at risk of progressive cognitive decline.

**Attention.** Seven studies on attention matched the inclusion criteria for this systematic review. I-BMS interventions included were mindfulness-based stress reduction (BMSR) (1), MBCT (3), Shaolin Dan Tian (1), meditation training (1), mindfulness meditation (1).

The research designs were RCTs using non-mindfulness stress reduction (1), relaxation training (2), waitlist control (3), no service (1) as comparison conditions. One study had follow-up design while the other six without.

The study populations were adults (5), children (1), and aging older adults (1).

All interventions focusing on attention showed positive effects.

BMSR significantly improved selective attention, mindfulness level, threshold for conscious perception and visual working memory capacity, and lowered perceived and physiological stress than non-BMSR and inactive control group.

Compared with control groups without services or being on the waiting list, MBCT participants showed significantly reduced facilitation of attention for negative information and a reduced inhibition of attention for positive information; improved ability to shift their attention toward current moment experience and away from potentially depressogenic thinking or rumination during mild dysphoric states. For child participants, MBCT led to fewer attention problems, reduced anxiety symptoms and behavior problems.

Subjects receiving Shaolin Dan Tian showed significant improvement on neural activity and connectivity than subjects receiving progressive muscle relaxation. Shaolin Dan Tian is a practice using Dan Tian region (i.e., half an inch below navel) to practice breathing techniques.

Meditation training significantly improved attention, control of stress, self-regulation and immunoreactivity than relaxation training.

Mindfulness meditation for aging older adults showed significant improvement on inhibitory attentional functioning than waiting list group while no significant difference in cognitive function.

**Emotion.** Five studies focusing on emotion matched the inclusion criteria for this systematic review. I-BMS interventions included were meditation (1), mindfulness-based stress reduction (1), mindfulness-based education (1), spiritually education program (1), and massage therapy (1).

Four research designs were RCTs using relaxation (2) and waitlist controls (2) as comparison conditions. One research design compared two I-BMS interventions: home study-based spirituality program versus meditation. One study had a follow-up design while the other five studies did not have follow-up.

The study populations were adults (3), adolescents (1), and older adults (1).

All treatment showed positive effects.

Compared to relaxation, meditation showed significant improvements on emotional interference, image ratings of negative valence and arousal, perceived anxiety and difficulty state, trait-anxiety, and attention regulation.

Compared to waitlist group, BMSR significantly increased in trait mindfulness, self-compassion and decreased absent-mindedness, fear, suppression of anger, aggressive anger expression, worry and difficulties regulating emotions.

Compared to waitlist group, mindfulness-based education program revealed significant positive effects of optimism, and classroom social competent behaviors for adolescents.

Compared to group without service, spirituality education program and meditation both significantly had positive effects on mood disturbance for emotionally distressed patients, while spirituality education showed greater extent of change than meditation.

Compared to guided relaxation, massage therapy showed greater improvements for anxiety, stress, depression, vitality, general health and positive well-being for older adults.

***Neuro/physical health.*** Five studies focusing on neuro/physical indicators matched the inclusion criteria for this systematic review. I-BMS interventions included were mindfulness (1), Mindfulness meditation (1), BMSR (2), and Reiki (1).

All studies were RCTs using no treatment control (3) or active control (2) as comparison conditions. The study populations were all adults. Three of the five studies had positive effects on the outcomes related to bottom-up processing, mindfulness processing, and other mental and cognitive processing. Two studies showed no effects.

Mindfulness and mindfulness meditation showed positive effects on dispositional and state mindfulness (putative proximal outcome of mindfulness, depression-related dysfunctional attitudes and anxiety sensitivity.), bottom-up processing, attention, and reduced interference of a visual warning stimulus. One BMSR had no effect on hypertension while the other BMSR showed same or less effect compared with the control Health Enhancement Program. Reiki had effects on heart rate, diastolic blood pressure, but no effect on autonomic nervous system changes.

***Mindfulness.*** Four studies related to improving mindfulness or self-compassion matched the inclusion criteria for this systematic review. I-BMS interventions included were Tai Chi, Taijiquan, mindfulness self-compassion, and BMSR. All studies were RCTs using waiting list control (2) and active control (2) as comparison conditions.

The study populations were healthy adults and college students. All I-BMS interventions showed positive effects on study outcomes.

Tai chi intervention showed significantly greater increase in scores on self-attributed mindfulness and self-attributed self-compassion. Taijiquan was associated with an increase in total mindfulness scores, sleep quality, and a trend of improvement of all other well-being variables (mood, perceived stress, self-regulatory, self-Efficacy) with either stability or decline over time in the control group. Mindfulness self-compassion led to significantly greater increase in self-compassion, mindfulness, and well-being in long term. BMSR increased mindfulness and reduced perceived stress and rumination.

## **Summary**

Based on a systematic review of 207 studies published between 2004 and 2013 that used randomized controlled trials to examine effectiveness of I-BMS interventions, there is strong evidence for the effectiveness of I-BMS practices for treating a wide range of mental health diagnoses/problems. Evidence of I-BMS interventions for depression,

stress, and anxiety was most well-established with more than 30 RCTs conducted on depression and stress and 24 RCTs on anxiety. Findings of these studies showed positive impact of these interventions on the mental health diagnoses/problems. There is also strong evidence for the effectiveness of I-BMS interventions for sleeping disorder/problem, substance use problem, schizophrenia, PTSD, and developmental disabilities. Twelve to seven RCTs were conducted on these diagnoses/problems with positive outcomes. There is initial emerging evidence on the use of I-BMS interventions for treating eating disorders, ADHD, behavioral disorders, bipolar disorders, personality disorders, OCD, dementia, and somatization. However, because only a small number of RCTs, ranging from one to four, were conducted on these problems, findings should be interpreted with caution. More studies will be needed before a more definitive conclusion of the effectiveness of BMS interventions could be established.

I-BMS interventions include a wide range of interventions. Mindfulness-related interventions such as BMSR and MBCT are the most well-established and researched interventions followed by yoga, meditation, relaxation, acupuncture and massage, Tai chi/Qigong, and spiritual-based programs. Other less studied interventions include dance and movement, reiki, music, mindful-based stretching and breathing, biofeedback, and body-mind bridge. Evidence of effectiveness was established for most interventions with the exception of relaxation. There was a lack of empirical evidence for the effectiveness of relaxation for treating diagnosis or problems related to anxiety.

I-BMS practice is an emerging paradigm that has been widely adopted in medicine and nursing education but less in social work education. To support graduate social work programs to incorporate I-BMS practices in social work curricula, it is imperative to develop an understanding of the implications of relevant scientific advances and the range of I-BMS approaches that are currently adopted in social work and related fields. The growth of scientific evidence for I-BMS practices in social work and related healthcare field has been exponential in the past decade. Findings of this systematic review provide strong evidence of effectiveness of I-BMS practices for a wide range of mental health diagnoses/problems. Evidence for mindfulness-based interventions (e.g., BMSR, MBCT) is well-established for treating depression, stress, and anxiety as well as other diagnoses such as sleeping disorder/problem, substance use problem, schizophrenia, PTSD, and developmental disabilities. There is also strong support for the use of other I-BMS practices such as yoga, meditation, tai chi, acupuncture and massage for a wide range of diagnoses and problems. More evidence, however, will need to be established for the less studied I-BMS interventions such as dance and movement, reiki, and music therapy as well as for less researched problems areas including but not limited to eating disorders, ADHD, behavioral disorders, bipolar disorders, personality disorders, OCD, dementia, and somatization.

## Section II:

### Systematic Literature Review of I-BMS in Social Work Education

The objective of this systematic review is to identify literature that focuses on inclusion of the I-BMS practice approach and I-BMS modalities in accredited social work education programs. Publications of interest included those that reported on incorporation of I-BMS curricular content in specific undergraduate and graduate social work courses and social work faculty uses of I-BMS approaches in the teaching and learning process, as well as their own professional development.

Given the increased focus on inclusion of spirituality in social work education and availability of the CSWE Religion and Spirituality Clearinghouse, articles selected for this review were limited to those that reported on the inclusion of course content or pedagogical approaches designed to increase students' self-awareness of their own spirituality and its role in their practice and professional development. In this review, spirituality is defined as "the search for a sense of life purpose, meaning, and morally fulfilling relationships between oneself, other people, the universe, and the ultimate ground of reality, however one understands it" (Canda, 1999, p. 12).

#### Methods

Publications were identified through electronic databases including EBSCOhost, Cochrane systematic review, Campbell Systematic Review, SSCI, and WorldCat Dissertations and Theses using the keywords "social work education" AND holistic OR body-mind OR complementary and alternative OR mind-body OR spirit\* OR contemplative OR meditat\* OR relax\* OR yoga OR tai chi OR qi gong OR mindful\* OR therapeutic touch OR acupressure OR Tai qi OR Chi gong OR Reiki OR Aromatherapy OR Body work OR Massage. Inclusion criteria were: (1) publications describing integration of curricular content in specific courses and/or implementation of pedagogical approaches; (2) publications describing faculty development efforts; (3) publications in English; (4) published articles in peer-reviewed journals; (5) dissertations and theses; and (6) items published between January 2004 and December 2013. Excluded from this review were systematic literature reviews or meta analyses. Also excluded were articles on the topic of spirituality that did not describe the inclusion of course content or pedagogical approaches designed to increase students' self-awareness of their own spirituality and its role in their practice and professional development.

#### Results

The search first yielded 343 publications. Title review of these publications identified 80 publications that met the inclusion criteria. After abstract and article review, nineteen publications were selected for this systematic review. Of these eighteen were

peer-reviewed journal articles and one was a doctoral dissertations. Ten publications described the use of contemplative practices, such as meditation and mindfulness; six reported the implementation of courses that included spirituality; two discussed the implementation of courses that explored the I-BMS practice approach and specific I-BMS interventions; and one detailed a holistic self-care journaling assignment. It is important to note that, conceptually, the contemplative practices and spirituality categories are not mutually exclusive. Some articles described the use of contemplative practices to promote students' spiritual development (e.g., exploration of existential questions), to encourage spiritual self-care, or both. For the purpose of this literature review, the publication title determined its classification when it could have been placed in either category.

**I-BMS Approach.** Two journal articles described the same two graduate courses designed to promote social workers' engagement in I-BMS practice in health care contexts (Gant et al., 2009; Kreitzer & Sierpina, 2006). Gant and colleagues designed these courses. Their article provides the most complete descriptions of them, as well as the gap in social work education they are designed to address. They assert that practitioners must be prepared to promote and work effectively in integrated health and integrated health care services, defined as:

an evidence-based approach in which social workers develop and learn to use (1) a biopsychosocial/spiritual, nonpharmacologically limited framework of health that affirms the importance of considering conventional, complementary, and alternative medical modalities in developing plans for health and Wellness; (2) client education and advocacy skills and services that help people (a) make better informed health decisions, (b) communicate with health care practitioners, and (c) explore health-related decisions and choices in the context of personal history, meaning, beliefs, and lifestyles; and (3) a simple set of vetted mind-body skills for teaching basic coping and stress reduction approaches to clients (Gant et al., 410).

To provide students with a conceptual framework to understand I-BMS practice and familiarity with integrative modalities, the course Complementary, Alternative, and Indigenous Healing Systems was offered as a semester long, MSW elective. This survey course explored a wide range of healing practices used in the United States, "including energy-based systems such as polarity, reiki, acupuncture, acupressure, reflexology and iridology; spirit-based systems such as curanderismo, espiritismo, santeria, voodoo, spiritualism, and faith healing; and body-based systems such as myo-massage, osteopathy, chiropractic, sacrocranial massage, and homeopathy" (Gant et al., pp. 413-414).

The course Theory and Practice of Mind-Body Connections for Health and Self Care was developed subsequently to enable students to experience and learn a specific set of I-BMS practice skills. This 13 week, MSW elective course included didactic sessions,

along with an experiential component. Students engaged in a variety of empirically-based I-BMS practices, such as “meditation, breathing exercises, guided imagery, biofeedback, autogenic training, drawing, genogram self-assessments, and journaling. Students were required to practice techniques daily for a minimum of 10-15 minutes, reflect upon assigned readings in addition to their experience with the mind-body practices in weekly journal assignments and logs, and demonstrate the integration of their readings and practice methods by developing a prototype for a Wellness assessment plan that could be used as a planning tool for future clients” (Gant et al., p. 414).

A third article described a MSW course assignment that used an I-BMS approach to promote student self-care (Moore, Bledsoe, Perry, & Robinson, 2011). Throughout the semester in a graduate foundation practice course, students were required to record in a biweekly self-care journal the actions that they took to support their emotional, physical, psychological, social, and spiritual health. The assignment required students to provide an evidence-based for their self-care activities using professional literature (p. 547).

**Contemplative Practices.** Ten publications in this review discussed the integration of contemplative practices in social work courses, including meditative dialogue, mindful reflection, and various forms of mindfulness meditation (e.g., eating, sitting, and walking meditation). Eight of the ten articles described the inclusion of contemplative practices in the content and learning processes in nine social work courses. All courses were designed to promote development of students’ practice skills and support their wellbeing. Five were MSW courses—three required and two electives, and four were undergraduate required practice courses. The remaining two of ten articles reported faculty use of contemplative practices to enhance and support their teaching effectiveness.

***Contemplative Practices to Promote Student Professional Development and Wellbeing.*** Eight articles focused in the use of contemplative practices to enhance students’ wellbeing, professional development, or both. Mindfulness meditation training was the contemplative practice most frequently incorporated into the content of graduate and undergraduate practice courses and was discussed in six articles (Birnbaum, 2008; Birnbaum, & Birnbaum, 2008; Gockel, Burton, James & Bryer, 2013; Lu, Dane, & Gellman, 2005; Napoli & Bonifas, 2011; Wong, 2013). The intended outcomes of the training included decreasing stress; promoting self-care; supporting overall wellbeing; and cultivating skills and behaviors to support practice, including accepting without judgement, acting with awareness, compassion for self and others, empathy, self-awareness, self-observation, and self-reflection. Most training followed the procedures or an adapted version of the Mindfulness Based Stress Reduction (BMSR) processes advanced by Dr. Jon Kabat-Zinn, Professor of Medicine Emeritus and creator of the Stress Reduction Clinic and the Center for Mindfulness in Medicine, Health Care, and Society at the University of Massachusetts Medical School (2005, 2009; Kabat-Zinn & Hanh, 2009). Training in these



courses was delivered in a variety of formats, including instruction and practice in each class over the course of a semester and day long retreats.

Two articles discussed the use of mindfulness practices in courses that did not include BMSR training. One article reported guiding students in a contemplative practice called mindful dialogue in a MSW practice course (Lord, 2007). Following a syllabus that identified discussion topics for weekly sessions, each class began in silence and used the following processes to guide class sessions and classroom discussion—deep listening; reflection; contemplation and pausing before speaking; allowing speech to arise from silence; saying only what needs/wants to be said; experiencing the silence and the space; noticing assumptions, reactions, and judgements; observing identities and roles; giving the speech and the speaker full attention; and listening to fully hear (Lord, 2007, pp. 335-336). The second article described an undergraduate relational skills course that required students to maintain a checklist throughout the day to facilitate observation of internal dialogue and habitual mental activity when they were listening to others (Goh, 2012). Students shared their self-observations and reflections in small group dialogue sessions during class.

***Contemplative Practices to Enhance Teaching Effectiveness.*** Two of the ten articles that discussed contemplative practices focused on social work faculty efforts to improve their teaching effectiveness. Norton, Russell, Wisner, and Uriarte (2011) described the use of a feminist-informed action-in-reflection approach to enhance junior faculty members' abilities to be more reflective in teaching and effective in preparing students for practice. For one semester, a group of social work faculty maintained "reflective teaching journals" and met once per month to engage in intergroup dialogue and contemplative practices, such as group meditation and visualization. Soule (2007) describes using "beginning's mind" as her pedagogical approach to repeatedly teaching an Introduction to Social Work course. In this Zen Buddhist contemplative approach, "[t]he mind of the beginner is empty, free of the habits of the expert, ready to accept, to doubt, and open to all the possibilities" (Suzuki, 2010, p. 8). Soule (2007) described her use of "beginner's mind" as guiding her regular self-reflection in the teaching context:

This meant asking "who am I" on a regular basis. Who was I as a social work educator? What did social work mean in a constantly changing global practice world? How could new social workers best learn the meaning of social work for themselves? (p. 54)

**Spirituality.** Several publications described the critical importance of spirituality in social work education (e.g., teaching students to view clients' spirituality as a source of strength) and made recommendations on how to infuse this content into curricula. However, only six publications were identified that meet the criteria for this review. These discussed courses designed to increase students' self-awareness of their own

spirituality and its role in their practice and professional development, as well as promote their spiritual wellbeing.

***Narrative Reflecting Teams to Promote Spiritual Growth and Wellbeing.*** Two of the six publications were written by the same author—one doctoral dissertation and one journal article—and reported an approach implemented with MSW students in Human Behavior in the Social Environment, Human Diversity, and Social Work Research courses (Sloan-Power, 2007, 2013). These publications examined a pedagogical approach used in these courses called a Narrative Reflecting Team, which is a process used in narrative therapy and community work. In one in-class session lasting 2 to 2.5 hours, students voluntarily participated in groups of 5, with each taking a turn in the role of participant telling his/her “spiritual story,” interviewer who asked a question from a list provided, and “outsider witnesses.” After the interview, the participant listened to the three outsider witnesses engage in a reflective, non-evaluative, nonjudgmental conversation among themselves about what they had heard. The process was intended to increase students’ introspection, awareness of their spiritual development, and support their spiritual wellbeing.

***Spirituality in Social Work Practice Courses.*** Three articles discussed inclusion of spirituality content in MSW elective courses, two of which were also taught as undergraduate courses. Two of these courses were entitled Spirituality and Social Work Practice (Bethel, 2004; Seyfried, 2007), and one was entitled Spirituality and Aging (Murdock, 2005). Bethel (2004) examined a spirituality and social work practice course and ways it influenced student attitudes, values, and spiritual wellness. This nine week, three-credit elective course explored spirituality-related theories and themes (e.g., Jungian archetypes, Joseph Campbell’s Hero’s journey), spiritual intervention techniques at micro and macro practice levels, and diverse religious and spiritual beliefs and practices. The course also promoted self-care and aimed to deepen students’ awareness of their spiritual worldviews and how these informed their personal values. This course was offered in the context of a broader curriculum in which content and experiential learning related to spirituality was infused in required courses (e.g., spiritual development in HBSE, spiritual and religious diversity in Human Diversity courses, biopsychosocial-spiritual assessment in Foundation Practice courses, and meditation in Advanced Interventive Methods).

Seyfried, (2007) gives an account of a MSW foundation elective course designed to explore the concept of spirituality in social work practice and promote the spiritual development of students. Pedagogical methods aimed to create a safe space to encourage values clarification and self-exploration. These methods included a dialogue format for each class session that excluded PowerPoint presentations; agreed upon class norms of respect, confidentiality, and no debating; and contemplative exercises, such as meditation, and poetry to foster presence and interpersonal/intrapersonal awareness.

The Spirituality and Aging course (Murdock, 2007) was designed to promote self-awareness regarding students' spirituality and aging issues. This six week, three-credit elective course gave students opportunities to share spiritual symbols that were important to them and paired students to complete spiritual assessments for each other to increase students' spiritual self-awareness and skill in conducting this kind of assessment.

***Spiritually Sensitive Professional Development.*** One publication examined a module in a BSW Senior Field Seminar designed to promote spiritually sensitive professional development, defined by the author as “professional development that considers the whole student, is grounded in an understanding of meaning and purpose in one’s work, utilizes a process of reflection and discernment for ethical practice and emphasizes spiritually based self-care” (Larkin, 2010, p. 446). The seminar required students to read relevant materials, engage in seminar discussions, and write a capstone paper that explored their spiritually sensitive professional development. To provide a conceptual framework for the module, one seminar session included a presentation called Integrating Spirituality and Work: Developing a Personal ‘Rule of Life.’

### **Summary of I-BMS in Social Work Education**

This literature review aimed to identify the inclusion of I-BMS curricular content in specific undergraduate and graduate social work courses, uses of I-BMS approaches in the teaching and learning process, and social work faculty uses this approach in their own professional development. Of the nineteen publications included in this review, only two described courses that taught the I-BMS conceptual framework as an approach to practice. The remaining seventeen publications explored the use of I-BMS practices, modalities, or spirituality in teaching, learning, and faculty professional development. Mindfulness meditation and other contemplative practices (e.g., meditative dialogue, mindful reflection) were most commonly incorporated into social work courses to enhance students' professional development, spiritual development, cultivate practice skills, promote their self-care, and create a supportive learning environment. Faculty used mindfulness meditation, visualization, and a beginner’s mind stance to enhance their teaching effectiveness.

Six of the nineteen publications focused on courses that included aims to promote students' spiritual development or support their spiritual wellness. Pedagogical strategies used in these courses included narrative practice reflecting teams, receiving a spiritual assessment completed by a classmate and conducting an assessment for a classmate, guiding students to explore existential questions, and self-care assignments.

As revealed by the survey of NADD member schools detailed in this report, many more MSW programs are implementing I-BMS courses than are reflected in this literature

review. As could be anticipated, most of these courses have not been documented in the social work literature. It is likely that a broader range of I-BMS content, pedagogical strategies, and faculty development efforts are in use than this literature review could capture. Nevertheless, this review provides some insight into how the I-BMS approach is being incorporated into social work education.

### **Section III: Survey of MSW Programs**

In fall 2011, an informal survey was conducted of NADD member schools via the NADD listserv, asking if their social work program offered a CAM or Integrative Health and Mental Health course. At the time of the survey, there were just under 200 accredited MSW programs in the U.S. Most of these programs did not respond so the assumption was made that most did not offer such a course. The survey results showed that 7 programs offered courses in this topic, and 28 programs responded that there was an interest in such courses for the future. It was also noted from the survey that at least 7 social work faculty were writing in this area. Only limited email follow-up was completed and syllabi of all courses were not collected.

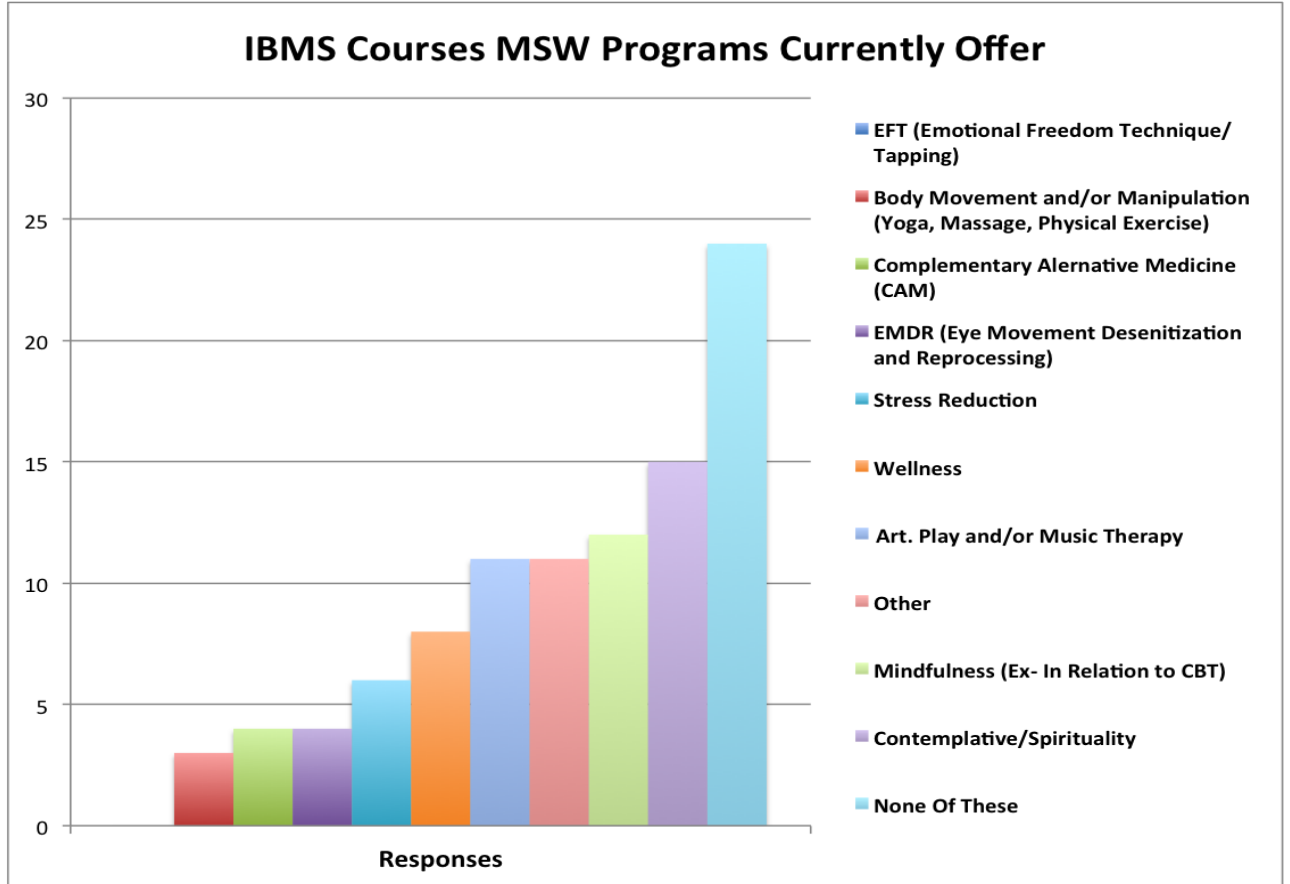
The survey conducted in the spring and early summer of 2014 repeated questions in the 2011 survey, but then went into more depth as to the type of course or continuing education workshop offered, as well as following up with NADD member schools to collect relevant syllabi. A student research assistant under faculty supervision designed the survey in Survey Monkey and sent the initial survey to all NADD member schools, which now number over 200 and another research assistant conducted the follow up contacts, which helped to yield a better return rate than resources permitted during the previous survey and she compiled the data from the survey.

Fifty-six MSW programs responded to the survey out of the 231 MSW programs that were accredited as of February 2014, which yields a response rate of 24%. The survey conducted three years earlier had a response rate of 17%.

What this survey shows is that more programs are offering I-BMS courses, especially in Mindfulness related to Cognitive Behavioral Therapy. In viewing the results it is noted that for a number of the questions, programs selected not to answer. The number of respondents answering the survey questions varied from 56 to 26.

Graphs have been color coded and can be decoded by response key. If color cannot be seen, bars from left to right match the order of key responses from top to bottom.

**Figure 2.**



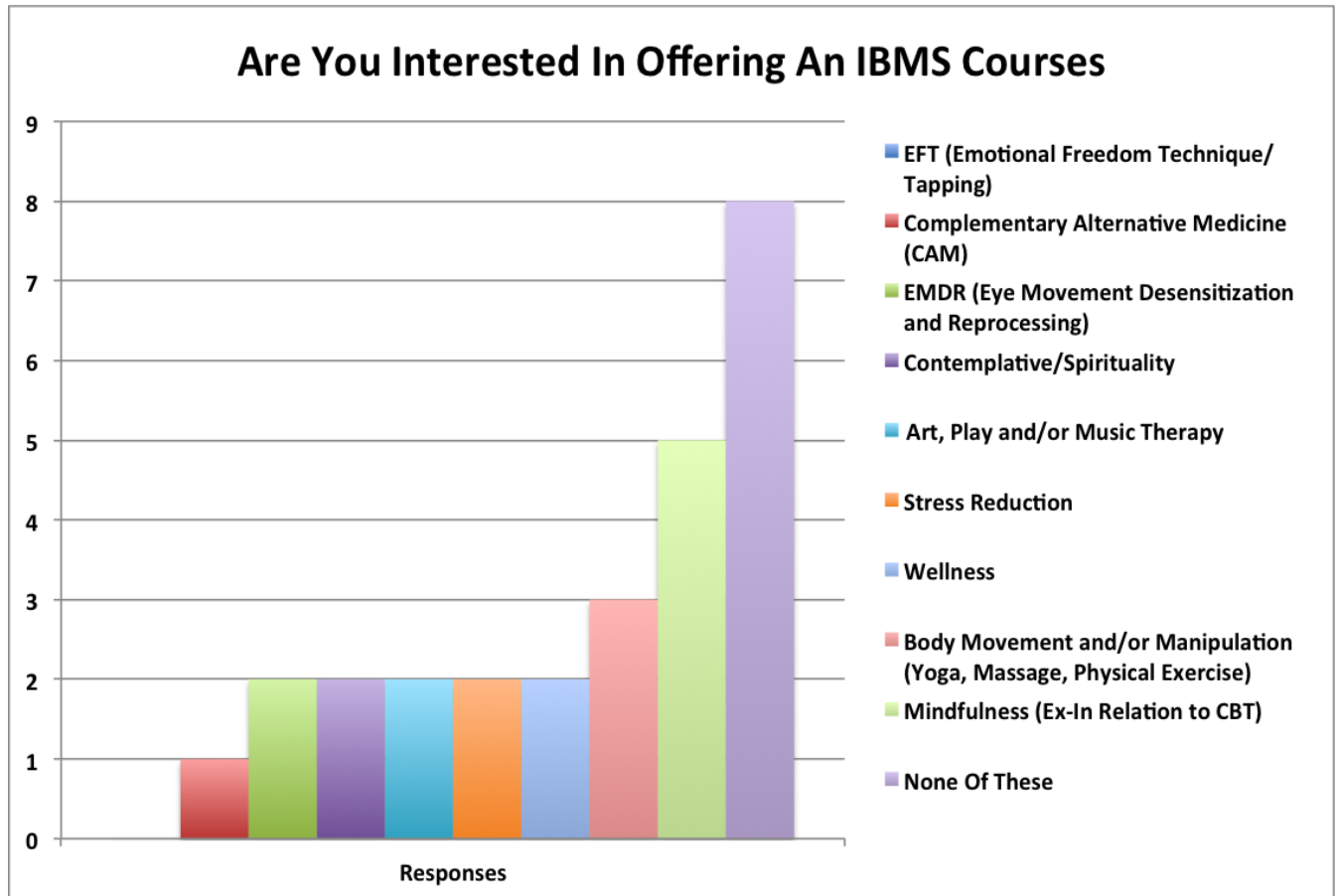
56 answered 0 skipped

*Survey Question 1:* Please indicate any I-BMS courses that your MSW program currently offers.

Survey responses gathered by question 1 indicates any I-BMS courses currently offered in MSW programs that completed the study. Contemplative practice and spirituality courses were most frequently reported (26.79% or 15 respondents); and mindfulness courses were the next most frequently reported (21.43% or 12 respondents). Other I-BMS courses offered by respondents focused on wellness, stress, Eye Movement Desensitization and Reprocessing (EMDR), complementary and alternative medicine (CAM), and body movement and manipulation, such as yoga, massage, and physical exercise.

Survey question 1 connects to the qualitative responses gathered in survey question 4, which asked respondents the specific name of the course they currently offered. Out of 28 respondents the main themes for course titles were: Spirituality, Play Therapy, Mindfulness, Mind-Body-Spirit or Holistic Social Work.

**Figure 3.**

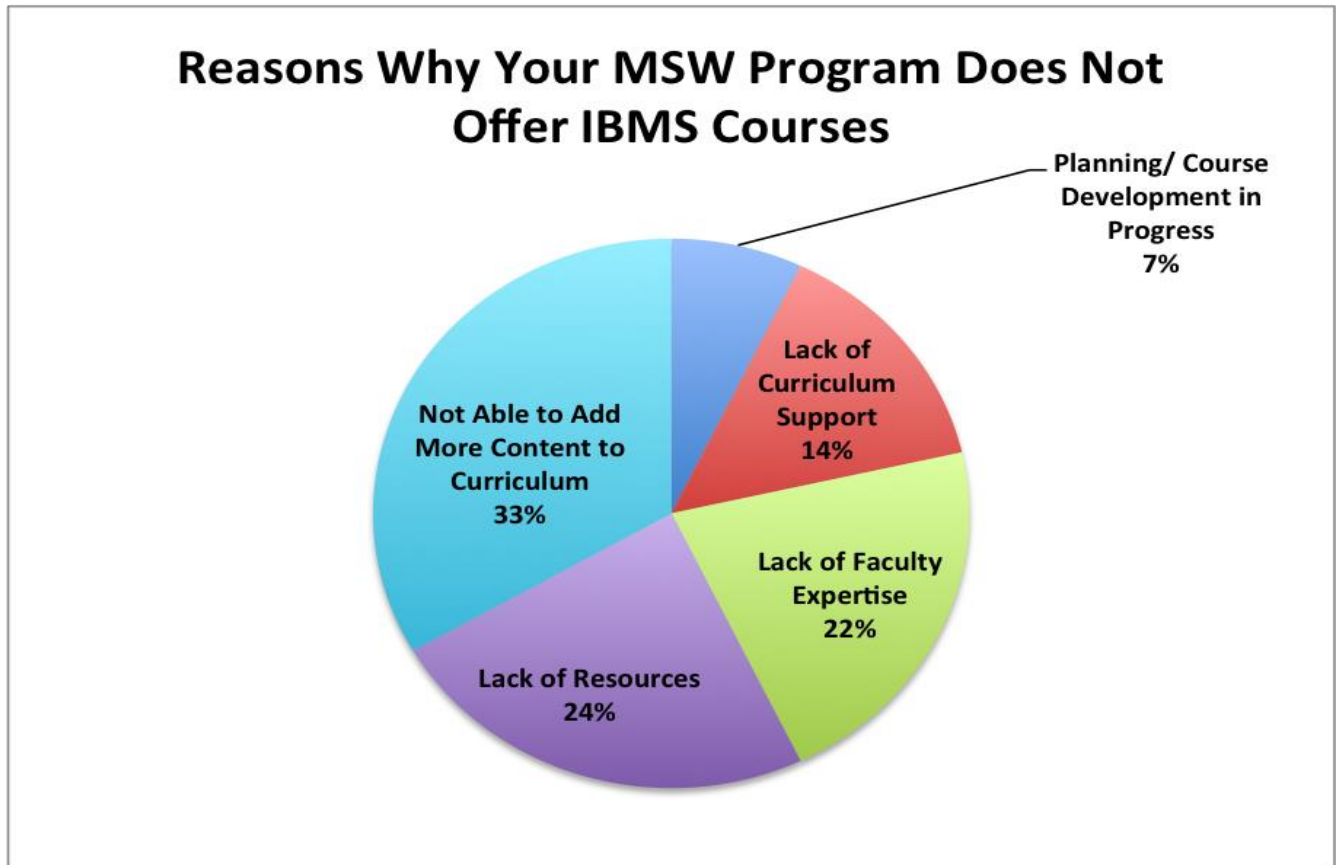


27 answered 29 skipped

*Survey Question 2:* Are you or other faculty in your program interested in offering I-BMS? If no, Skip Ahead to question 3. If yes, please indicate from the list below which topic areas are of interest.

Survey Question 2 gathered responses from individuals who were interested in integrating I-BMS programming into their curriculum, and which topic areas were of most interest to them. The highest ranked area of interest was Mindfulness (for example as used in relation to CBT) coming in at 18.5%, and the second area of interest was Body Movement and/or Manipulation (such as yoga, massage, physical exercise) gaining 11.1% of responses.

Figure 4.

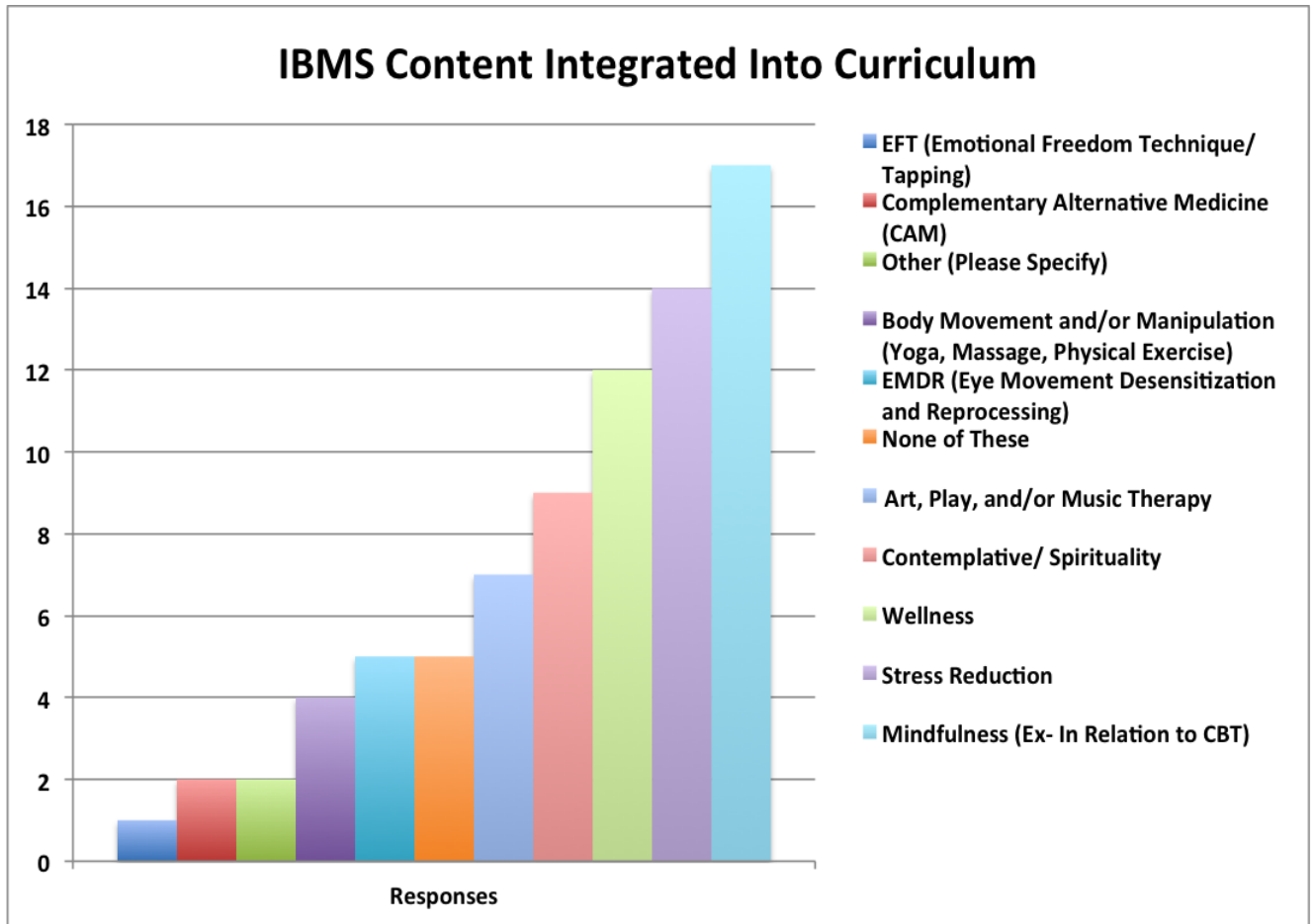


26 answered 30 skipped

*Survey Question 3:* If your MSW program does not offer I-BMS courses, please indicate whether it might be due to the following reasons.

In response to survey question 3, which asked respondents to select from the following reasons, indicating why their MSW program does not offer I-BMS courses. The results showed that 33% of respondents were not able to add more content to their curriculum, 24% selected lack of resources, 22% said it was due to lack of faculty expertise, 14% chose lack of curriculum support, and 7% said they were currently in the planning or course development progress.

Figure 5.



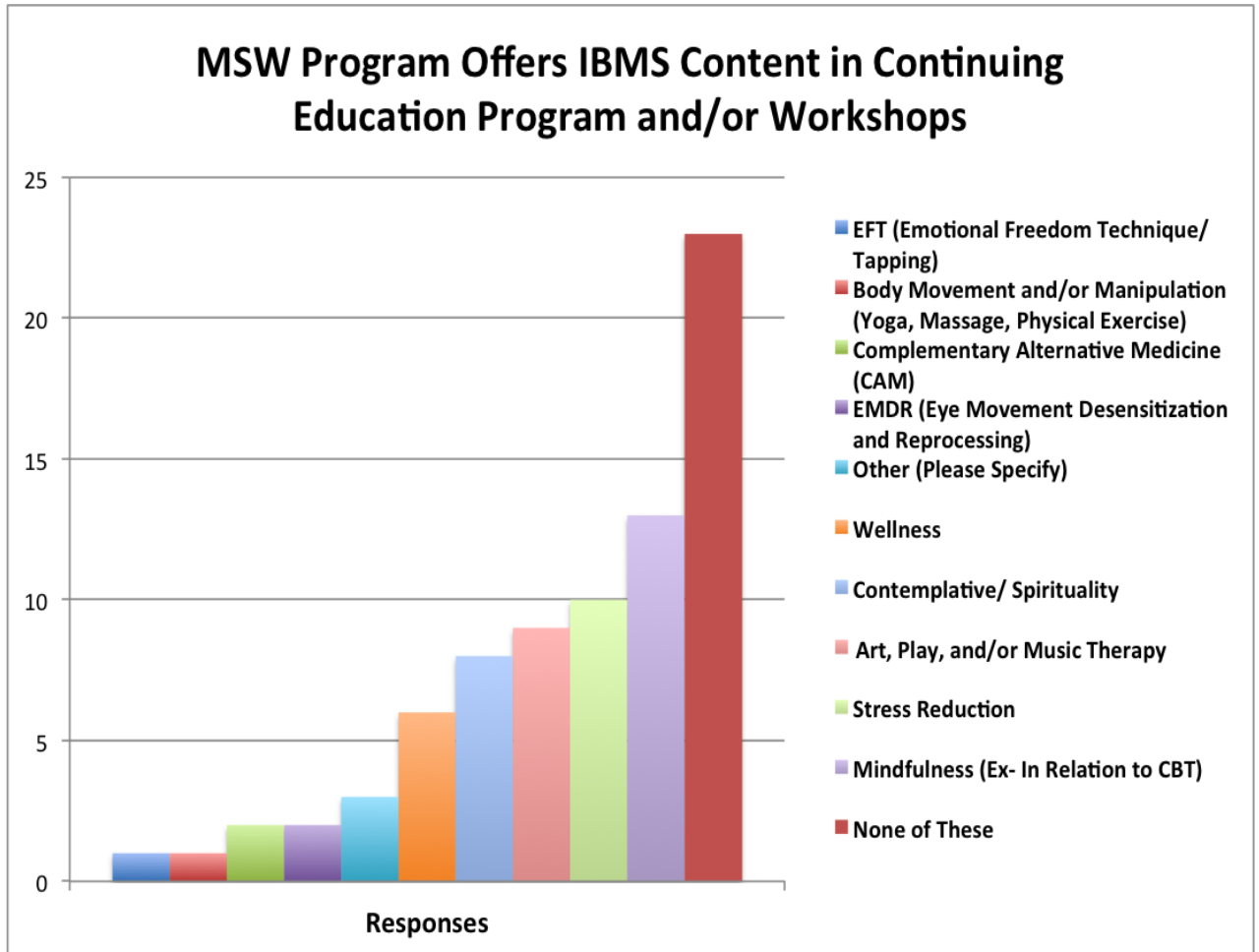
30 answered and 26 skipped

*Survey Question 5:* If you Do Not offer a specific I-BMS course is any content from the list integrated into another course scheduled within your curriculum?

Survey Question 5 asked respondents to identify if the MSW program did not offer a specific I-BMS course, if instead any I-BMS content was integrated into another course within the curriculum. The main response selected for I-BMS content curriculum integration was Mindfulness (for example as used in relation to CBT) obtaining 56.7%, the second selection was Stress Reduction acquiring 46.7%, and the third category selected was Wellness at 40% of respondents.



Figure 6.

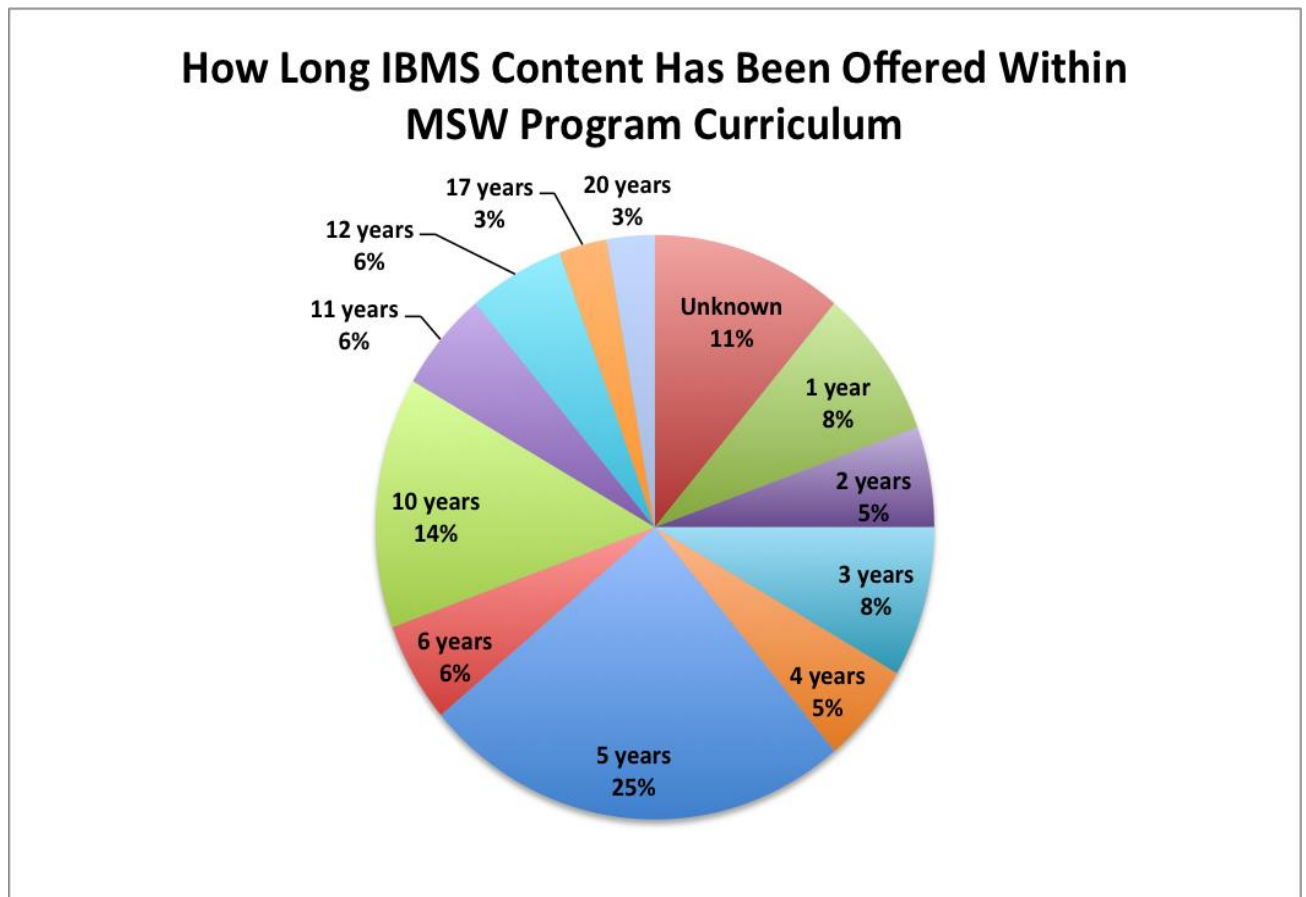


50 answered and 6 skipped

*Survey Question 6:* Does your MSW program offer I-BMS content in continuing education programs and/or workshops?

Survey Question 6 asked respondents to identify if the MSW program offered I-BMS content in continuing education programs and/or workshops. The response that gained the largest amount of support for I-BMS continuing education programs was Mindfulness (for example as used in relation to CBT) obtaining 26%, the second selection was Stress Reduction acquiring 20%, and the third category selected was Art, Play and/or Music Therapy at 18% of respondents.

Figure 7.

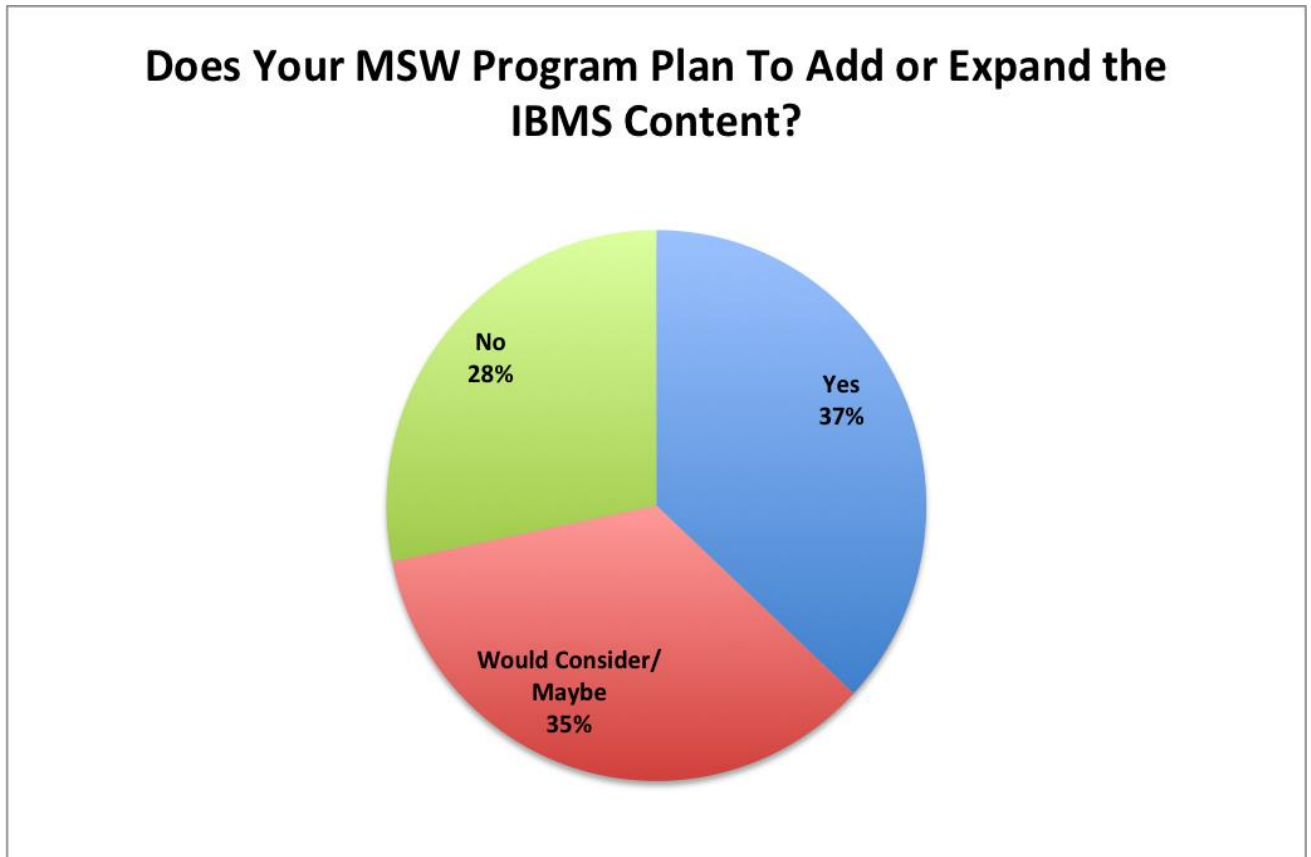


40 answered 16 skipped

*Survey Question 7:* How long has your MSW program offered I-BMS content in courses, workshops and/or continuing education?

Question 7 gathered qualitative results to see how long I-BMS content has been included in various MSW programs through course curriculum, workshops and/or continuing education programs. Results varied from 1 year to 20 years, with the largest responses coming in at 5 years or 25%, followed by the second largest at 10 years or 14% of respondents.

**Figure 8.**



46 answered 10 skipped

*Survey Question 8:* Does your MSW program plan to add or expand the I-BMS content?

Survey question 8 solicited a qualitative response, asking respondents if their MSW program planned to add or expand the I-BMS content. The general themes were broken down into three categories with the response of “Yes” to adding I-BMS content into the curriculum at 37%, following behind this was the reply of “Would Consider or Maybe” at 35%, and the third category was “No” thought of expanding I-BMS content at 28% of respondents.

*Question 9:* Are you willing to share your syllabus?

Forty-one percent of respondents indicated they were willingness to share their syllabus, 20% answered “no” and 39% did not respond to the item.

*Question 10:* Indicate Yes or No if you wish to receive survey results

Most respondents indicated they wanted to receive survey results (92%) and a few (8%) did not want to receive the results. All respondents who responded affirmatively were sent the results.

#### **Section IV: Recommendations**

Findings detailed in this report suggest both need and opportunity for social work education programs to incorporate the IMBS approach and related evidence-based practices into curricula. The substantial body of research that supports the effectiveness of I-BMS practices for addressing mental health conditions and promoting wellbeing demands that educational programs prepare students with the requisite knowledge, skills, and attitudes to effectively engage these practices, whether through direct practice, referral, advocacy on behalf of clients, policy advocacy, or research.

Given the role of social work graduate programs in preparing the profession's leaders, researchers, and educators, it is imperative that the I-BMS approach and practices be infused into graduate curricula. However, the MSW program survey results discussed in Section III of this report indicate that lack of faculty expertise and lack of resources and curriculum supports are impediments to including I-BMS related courses in educational programs. The recommendations for NADD that follow are made to support social work education programs and their faculty to engage in needed I-BMS curriculum innovations.

##### **Recommendation 1: Council on Social Work Education I-BMS Work Group**

Advocate with the Council on Social Work Education (CSWE) to begin an I-BMS Work Group that would be tasked with the following:

1. Create a CSWE I-BMS Social Work Clearinghouse that would collect and develop curricular materials, including model I-BMS undergraduate and graduate curricula, syllabi, course modules, bibliographies, and other educational resources.
2. Solicit proposals for CSWE APM Faculty Development Institutes to enhance knowledge and skills for teaching the I-BMS approach and related practices.

##### **Recommendation 2: Infusion of I-BMS in Deans and Directors Leadership Institutes**

Advocate for existing and future deans and directors leadership institutes to include the cutting-edge science that supports the I-BMS approach and practices as relevant to each institute's focus.

### **Recommendation 3: I-BMS Conference**

Collaborate with CSWE, NASW, and other appropriate organizations to host an Integrative Mind-Body-Spirit Social Work Initiative Conference. The purpose of the conference is individual and organizational capacity building and planning for advancing I-BMS in social work and social work education. Ideally a one-day event, participants would include social work educators and researchers, researchers from other disciplines, social workers, and practitioners from other fields engaged in I-BMS practice. The format could involve a keynote panel of researchers, practitioners and educators, followed by topic-specific concurrent sessions, and a closing session that all participants would attend focused on next steps for social work and social work education.

### **References**

#### **Introduction**

- Canda, E. R. (1999). Spiritually sensitive social work: Key concepts and ideals. *Journal of Social Work Theory and Practice, 1*(1), 1-15.
- Curley, J. P., Jensen, C. L., Mashoodh, R., & Champagne, F. A. (2011). Social influences on neurobiology and behavior: Epigenetic effects during development. *Psychoneuroendocrinology, 36*(3), 352-71. doi: 10.1016/j.psyneuen.2010.06.005
- Froeliger, B., Garland, E.L., & McClernon, F. J. (2012). Yoga meditation practitioners exhibit greater gray matter volume and fewer reported cognitive failures: Results of a preliminary voxel-based morphometric analysis. *Evidence-Based Complementary and Alternative Medicine, Article ID 821307, 8 pages*. doi: 10.1155/2012/821307.
- Froeliger, B. E., Garland, E. L., Modlin, L.A., & McClernon, F. J. (2012). Neurocognitive correlates of the effects of yoga meditation practice on emotion and cognition: A pilot study. *Frontiers in Integrative Neuroscience, 6*(48). doi: 10.3389/fnint.2012.00048.
- Garland, E. L., & Howard, M. O. (2009). Neuroplasticity, psychosocial genomics, and the biopsychosocial paradigm in the 21st century. *Health Social Work, 34*(3), 191-9.
- Lee, M. Y., Ng, S., Leung, P. P. Y., Chan, C. L. W. and Leung, P. (2009). *Integrative Body-Mind-Spirit Social Work: An Empirically Based Approach to Assessment and Treatment*. New York: Oxford University Press.

- Irwin, M. R. (2008). Human psychoneuroimmunology: 20 years of discovery. *Brain Behavior and Immunity*, 22(2), 129-39.
- Irwin, M. R., & Miller, A. H. (2007). Depressive disorders and immunity: 20 years of progress and discovery. *Brain Behavior and Immunity*, 21(4), 374-83.
- Rossi, E. L. (2002a). Psychosocial genomics: Gene expression, neurogenesis, and human experience in mind-body medicine. *Advances in Mind Body Medicine*, 18(2), 220.
- Rossi, E. L. (2002b). *The psychobiology of gene expression*. New York: W.W. Norton & Company.
- Siegel, D. J. (2007). *The mindful brain: Reflection and attunement in the cultivation of well-being*. New York: W. W. Norton & Company.
- Siegel, D. J., Fosha, D., & Solomon, M. F. (Eds.) (2010). *The healing power of emotion: Affective neuroscience, development and clinical practice*. New York: W. W. Norton & Company.

## **Section I: Systematic Literature Review of I-BMS Practices**

Full citation of the 207 studies can be located at the online Reference List  
[http://csw.osu.edu/documents/I-BMS\\_Review\\_References.docx](http://csw.osu.edu/documents/I-BMS_Review_References.docx)

## **Section II: Systematic Literature Review of I-BMS in Social Work Education**

- Bethel, J. (2004). Impact of social work spirituality courses on student attitudes, values, and spiritual wellness. *Journal of Religion & Spirituality in Social Work: Social Thought*, 23(4), 27-45. doi:10.1300/J377v23n04\_03
- Birnbaum, L., & Birnbaum, A. (2008). Mindful social work: From theory to practice. *Journal of Religion & Spirituality in Social Work*, 27(1-2), 87-104.
- Birnbaum, L. (2008). The use of mindfulness training to create an 'Accompanying place' for social work students. *Social Work Education*, 27(8), 837-852.  
doi:10.1080/02615470701538330
- Canda, E. R. (1999). Spiritually sensitive social work: Key concepts and ideals. *Journal of Social Work Theory and Practice*, 1(1), 1-15.

- Gant, L., Benn, R., Gioia, D., & Seabury, B. (2009). Incorporating integrative health services in social work education. *Journal of Social Work Education, 45*(3), 407-425.
- Gockel, A., Burton, D., James, S., & Bryer, E. (2013). Introducing mindfulness as a self-care and clinical training strategy for beginning social work students.(report)(author abstract). *Mindfulness, 4*(4), 343.
- Goh, E. C. L. (2012). Integrating mindfulness and reflection in the teaching and learning of listening skills for undergraduate social work students in singapore. *Social Work Education, 31*(5), 587-604. doi:10.1080/02615479.2011.579094
- International Federation of Social Workers. (August 2014). Global definition of social work. Retrieved from <http://ifsw.org/policies/definition-of-social-work/>
- Kabat-Zinn, J. (2005). *Coming to our senses: Healing ourselves and the world through mindfulness*. Hachette UK.
- Kabat-Zinn, J. (2009). *Wherever you go, there you are: Mindfulness meditation in everyday life*. Hachette UK.
- Kabat-Zinn, J., & Hanh, T. N. (2009). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. Delta.
- Kreitzer, M. J., & Sierpina, V. (2006). Innovations in integrative healthcare education: Massage, medical, and social work student initiatives. *Explore (New York, N.Y.), 2*(1), 75.
- Larkin, S. (2010). Spiritually sensitive professional development of self: A curricular module for field education. *Social Work & Christianity, 37*(4), 446-466.
- Lord, S. (2007). Meditative dialogue: A tool for engaging students in collaborative learning processes. *Journal of Family Therapy, 29*(4), 334-337. doi:10.1111/j.1467-6427.2007.00396.x
- Lu, Y. E., Dane, B., & Gellman, A. (2005). An experiential model: Teaching empathy and cultural sensitivity. *Journal of Teaching in Social Work, 25*(3), 89-103.
- Moore, S. E., Bledsoe, L. K., Perry, A. R., & Robinson, M. A. (2011). Social work students and self-care: A model assignment for teaching. *Journal of Social Work Education, 47*(3), 545-553.

- Murdock, V. (2005). Spirituality and aging in the bachelor of social work curriculum: Infusion and elective methods. *The Journal of Baccalaureate Social Work, 11*(sp 1), 38-54.
- National Center for Complementary and Integrative Health. (December 2014). Complementary, Alternative, or Integrative Health: What's In a Name? Retrieved from <https://nccih.nih.gov/health/integrative-health#cvsa>
- Napoli, M., & Bonifas, R. (2011). From theory toward empathic self-care: Creating a mindful classroom for social work students. *Social Work Education, 30*(6), 635-649. doi:10.1080/02615479.2011.586560
- Norton, C. L., Russell, A., Wisner, B., & Uriarte, J. (2011). Reflective teaching in social work education: Findings from a participatory action research study. *Social Work Education; the International Journal, 30*(4), 392-407. doi:10.1080/02615479.2010.500658
- Seyfried, S. F. (2007). Creating a diverse spiritual community: Reflections from a spirituality and social work practice class. *Journal of Ethnic & Cultural Diversity in Social Work, 16*(3), 159-167. doi:10.1300/J051v16n03\_13
- Sloan-Power, E. (2007). Progressive pedagogy and diversity awareness for MSW students: An empirical reflecting team approach for teaching spirituality in the classroom. (Doctoral dissertation). ProQuest Dissertations and Theses. 3287748.
- Sloan-Power, E. (2013). Diversity education and spirituality: An empirical reflecting approach for MSW students. *Journal of Religion & Spirituality in Social Work, 32*(4), 330-348. doi:10.1080/15426432.2013.839222
- Soule, J. (2007). Beginner's mind. *Reflections: Narratives of Professional Helping, 13*(2), 50-55.
- Suzuki, S. (2010). *Zen mind, beginner's mind*. Shambhala Publications.
- Wong, Y. R. (2013). Returning to silence, connecting to wholeness: Contemplative pedagogy for critical social work education. *Journal of Religion & Spirituality in Social Work: Social Thought, 32*(3), 269-285. doi:10.1080/15426432.2013.801748.