



## Integrating Contemplative Practices of Mindfulness into Formal Education: Towards a Preliminary Review of Literature

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**Abstract:** The Asian contemplative practice of nonjudgmental awareness of the present moment, also known as “mindfulness”, once practiced mainly within the domain of ascetic monks, has found itself as a stress reduction adjunct therapy in healthcare settings in the West. The contemplative practice of breath-and-body awareness, associated with yoga, tai chi, qigong and various forms of meditation, including mindfulness meditation, has also been increasingly applied in the formal educational system in the West, both in pilot K-12 schools as well as in college and postgraduate education. It has been suggested that these practices heighten concentration, improve cognitive functions, in addition to emotional mood improvements. As the ASEAN region integrates itself at various levels, with the Philippines transitioning to the K-12 system, the simple practice of mindfulness invites us to look into its modern applications as we confront increasing levels of stress in school and society amidst economic globalization, as we also grapple with various ecological and social crises. 1. Objective: To review the reasons and examine the protocols and benefits of Asian contemplative practices of mindfulness used to train students and teachers in pilot schools and universities in the West. 2. Method: Undertake a preliminary review of literature on the use of contemplative practices in the formal educational system in the Western experience. 3. Key Results : Modern society has created stressful situations which are also reflected in the formal school systems. Contemplative practices show promise in reducing anxiety and stress among students and teachers alike, as well as encouraging tolerance and teamwork, with potential in enhancement of the learning experience. 4. Conclusion: Many educators in the West have pioneered in integrating contemplative practices to help both students and teachers alike. Further explorations need to be carried out by testing mindfulness protocols in classroom situations in the Philippine setting.

**Key Words:** mindfulness; meditation; contemplative practice; K-12 schools; medical schools.



## 1. INTRODUCTION

I recently explored the historical context, theoretical frameworks, practices and applications of mindfulness in the modern world (Simbulan, 2013), tracing it to Asian ascetic traditions. Mindfulness has been described as the “non-judgmental awareness of the present moment.” Such mindful awareness can be brought into being with various practices, the most basic ones start with awareness of breath, body and feelings.

Specifically, contemplative practices of mindfulness meditation and yoga-based exercises have been increasingly applied in clinical trials, with promising results in the West, mainly in the United States (Simbulan, 2009). The specific practice of mindful meditation had been popularized in the West in a secular setting by the University of Massachusetts School of Medicine’s Center for Mindfulness in Medicine, Healthcare and Society since the early 1980s, training a cadre of mindfulness teachers in the West (Kabat-Zinn, 1990). Such practices have been shown to attune the practitioner to turning everyday momentary experiences as opportunities for mindfulness, especially in difficult times and even in light or joyful moments.

Most of the earlier work on mindfulness training have been with adults, especially those with health care challenges. Hooker and Fodor (2008) have earlier advocated for adopting mindfulness techniques with children, with the potential to “enhance children’s attention and focus, and improve memory, self-acceptance, self-management skills and self-understanding.” Since then, many educators and researchers in the West have spearheaded programs in pilot schools and universities to integrate mindfulness programs for the K-12 school system, in addition to those pioneered at the tertiary level for college, medical and postgraduate schools.

The objective of this paper is to explore the wealth of expanding experience in mindfulness training for young and mature students in the formal educational system. Will the benefits of stress reduction arising from mindfulness programs reported in adults from the health care community be added bonuses for students and teachers in the formal school system, and contribute positively to their teacher-learning experiences?

## 2. METHODOLOGY

The web was scanned for published literature with available full text on the use of mindfulness practices in the formal educational systems for the past 15 years. For a general sweep of the technical literature, and focused discussions: the following search engines were used: google.com and pubmed.com. A number of full text articles were solicited directly from authors.

From the huge database of mindfulness literature in the medical and social sciences, selected published materials were reviewed for this short paper, with recent review articles and single study-based articles chosen to look into the experience of integrating mindfulness into the curricula of a number of pilot schools and universities, and for networking purposes with mindfulness training centers overseas. This is a preliminary review of selected literature.

## 3. RESULTS AND DISCUSSION

### *3.1 Mindfulness-based Interventions form part and intersect with a wide array of Contemplative Practices*

Mindfulness based interventions have been inspired by the successful work of Dr. Jon Kabat-Zinn at the University of Massachusetts School of Medicine’s Center for Mindfulness in Medicine, Health Care and Society, which consisted of programs utilizing the 8-week Mindfulness-Based Stress Reduction program and other variants. Yoga-based interventions in other clinical studies as well as neuroscientific studies of meditation suggesting changes in brain structure alongside psycho-emotional benefits have also provided justification for future interventions (Bostic et al., p. 3).

For the novice, one can refer to Table 1, which outlines some contemplative practices described in the Tree of Contemplative Practices (Duerr and Bergman, 2000-2015), a number of which have been incorporated in mindfulness-based interventions.

Table 1. Some Contemplative Practices (see also <http://www.contemplativemind.org/practices/tree>)

Practice Categories	Examples
Stillness	Meditation, Quieting the Mind, Silence, Centering
Relational	Council Circle, Dialog, Deep Listening, Storytelling
Movement	Labyrinth Walking, Walking Meditation, Yoga, Dance, Qigong, Aikido, Tai Chi Chu'an
Ritual/ Cyclical	Ceremonies and Rituals based on Spiritual or Cultural Traditions, Establishing a Sacred/Personal Space, Retreats
Generative	Lectio Divina, Visualization, Beholding Loving-Kindness Meditation
Creative	Contemplative Arts, Improvisation, Music and Singing, Journaling
Activism	Pilgrimage to areas where social justice issues are highlighted, Work and Volunteering, Vigils and Marches, Bearing Witness

### 3.2 Why Integrate Mindfulness in the Training of Teachers and Students ?

As mentioned earlier, mindfulness-based interventions (MBI's) were first applied for adult patient care. Hooker and Foder (2008, pp. 80-81) cites how mindfulness helps patients with health issues, as :

- (1) It leads to changes in thought patterns: cognitive change.
- (2) It contributes to self-management—sitting and attending to one's thoughts (internal and external experiences nonjudgmentally) is in itself self-management.
- (3) Relaxation becomes an offshoot of mindful meditation.
- (4) It promotes acceptance of the present moment as the basis or springboard for future action

Kabat-Zinn (1990, pp. 33-40) mentioned the attitudinal foundations of mindfulness practice, which can both have impact on health conditions and one's learning experience: (1) non-judging (2) patience; (3) beginner's mind; (4) trust; (5) non-striving; (6) acceptance; (7) letting go; (8) commitment, self-discipline and intentionality.

Flook et al (2013), for example, carried out a pilot mindfulness intervention study for teachers to address teacher stress and burnout, traced by other researchers to multiple factors such as student misbehaviour, time demands, workload, and organizational factors. Black and Fernando (2014) considered addressing disruptive classroom behaviour by students with a similar intervention among lower-income and ethnic minority elementary school children which benefited both teachers and student alike.

### 3.3 Initiatives in pilot K12 system schools

Meiklejohn et al. (2012) and Bostic et al. (2015) described mindfulness training programs for K-12 students, teachers, parents and administrators, summarized in a combined list in Table 2.

Table 2. Some Mindfulness Training Programs for children and youth (combined data from Meiklejohn et al., 2012 and Bostic et al, 2015)

Programs	Comments	web links/ references
Inner Kids Program	Pre-K-8 (USA)	<a href="http://www.susankaisergreenland.com/inner-kids-program.html">http://www.susankaisergreenland.com/inner-kids-program.html</a>
Inner Resilience Program	K8, parents, teachers, school officials (USA)	<a href="http://innerresilience-tidescenter.org/">http://innerresilience-tidescenter.org/</a>
Learning to BREATHE	Adolescents, Grades 5-12 (USA)	<a href="http://learning2breathe.org">http://learning2breathe.org</a>
Mindfulness in Schools Project	K-12; students and educators (USA)	<a href="http://www.mindfulnessinschools.org">http://www.mindfulnessinschools.org</a>
Mindful Schools	K-12 (USA)	<a href="http://mindfulschools.org">http://mindfulschools.org</a>
MindUP	Pre-K8 (USA)	<a href="http://thehawnfoundation.org">http://thehawnfoundation.org</a>
Sfat Hakeshev (The Mindfulness Language)	6-13 yr old children (Israel)	<a href="https://www.youtube.com/watch?v=I_AYZDB5Lxs">https://www.youtube.com/watch?v=I_AYZDB5Lxs</a>
Still Quiet Place	Pre-K12, teachers and parents (USA)	<a href="http://www.stillquietplace.com">http://www.stillquietplace.com</a>

Table 2. Some Mindfulness Training Programs for children and youth (continuation)

Programs	Comments	web links/ references
Stressed Teens	13 – 18 yrs old (USA)	<a href="http://www.stressedteens.com">http://www.stressedteens.com</a>
Wellness Works in Schools	13 – 18 yrs (USA)	<a href="http://www.wellnessworksinschools.com">http://www.wellnessworksinschools.com</a>
Mindful Life School Program	K-12 (USA)	<a href="http://www.mindfullifetoday.com/">http://www.mindfullifetoday.com/</a>
Attention Academy Program	Grades 1 -3 (USA)	<a href="http://www.stressbeaters.com/mbsr-education/the-attention-academy-program/">http://www.stressbeaters.com/mbsr-education/the-attention-academy-program/</a>
Meditation Fluir	Grades 9 – 12 (Spain)	
The School Yoga Project	PreK-12 (NY, USA)	<a href="http://littlefloweryoga.com/programs/the-school-yoga-project">http://littlefloweryoga.com/programs/the-school-yoga-project</a>
PowerMoves Kids	PreK-8 (USA)	<a href="http://powermoveskids.com/">http://powermoveskids.com/</a>
Yoga 4 the Classroom	K-8 (NH, USA)	<a href="http://www.yoga4classrooms.com">http://www.yoga4classrooms.com</a>
YogaKidz	Grades 1 – 5 (for high poverty, minority population) USA	<a href="http://www.gogrounded.com">http://www.gogrounded.com</a>
Here and Now: Yoga in School	Grades 3 -6 (Israel)	<a href="https://www.researchgate.net/publication/49694830_Here_and_now_Yoga_in_Israeli_schools">https://www.researchgate.net/publication/49694830_Here_and_now_Yoga_in_Israeli_schools</a>
Bent on Learning	Grades 4-5 (NYCity Public Schools, USA)	<a href="http://bentonlearning.org/">http://bentonlearning.org/</a>
Yoga in My School	PreK-12	<a href="http://yogainmyschool.com">http://yogainmyschool.com</a>

Movement-based mindfulness interventions, (including yoga postures, breathing, meditation, body awareness exercises), seem to be utilized in many recent studies for school children, as reported by Bostic et al (2014, p. 5), with positive outcomes related to stress reduction, relaxation, self-reported improvements in attention, social skills, and even correlated with stable cortisol levels in the intervention group in one study compared to controls.

A similar mindfulness-based intervention, Learning to BREATHE, applied in a regular high school (Metz et al., 2013) had a positive effect on the following measures: emotion regulation, self-regulation efficacy, symptoms of body distress, and self-reported stress levels.

### 3.4 Initiatives in Medical and Allied Health Science Schools

Gordon (2014) of the Center for Mind-Body Medicine (CMBM, Washington DC, USA) has recently reviewed the experience of mind-body skills group (MBSG) training for medical students in a number of medical schools (Table 3). These skills included biofeedback, guided imagery, autogenics, meditation, genograms, drawings, journaling, and movement modalities (exercise, yoga, martial arts and dance). MBSGs are part of the CMBM training course for faculty members.

Table 3. Full List of Medical Schools Offering Mind-Body Skills Groups in the US. (from Gordon, 2014)

Georgetown Univ.	Louisiana State U
Univ of Washington	Univ. of Michigan
Arizona Health Sciences Center	Oregon Health Science Univ.
Univ. of Connecticut	Univ. of Minnesota
Duke University	Stanford University
Johns Hopkins Univ.	University of Texas
Univ of Illinois	Tulane University
Univ of Kentucky	

Structured interviews with program leaders in these schools described the following benefits of MBSGs (Gordon, 2014): (1) MBSGs provide “safe havens” for openness among students; (2) self-reported reduction in anxiety, depression, insomnia, and headache; (3) felt less competitive, more understanding; felt committing oneself to a “life of service” as future doctors; (4) realized importance of self-care and for the health of patients.

Dobkin and Hutchinson (2013), in a review, surveyed 14 medical schools, many of which are following mindfulness-based stress reduction (mbsr) training model of University of Massachusetts School of Medicine (Table 4) with programs for medical and dental students. Rochester University (USA) and Monash University were cited for having outstanding mindfulness programs integrated into their curriculums. Those who are compliant with the

programs reported reduced stress and improved quality of life. The 14 schools listed here are mostly different from the list prepared by Gordon (2014).

Table 4. List of Medical Schools Offering Mindfulness Programs (based from Dobkin and Hutchinson, 2013) with updated web links

Medical School	Updated Web Links
Warren Alpert School of Medicine, Brown Univ. (USA)	<a href="http://www.brown.edu/academics/contemplative-studies/">http://www.brown.edu/academics/contemplative-studies/</a>
Dalhousie University School of Dental Hygiene, Faculty of Dentistry and Medicine, (Canada)	<a href="http://www.dal.ca/faculty/dentistry/programs/special-offerings/mindfulness.html">http://www.dal.ca/faculty/dentistry/programs/special-offerings/mindfulness.html</a>
Jefferson Medical College Mindfulness Institute, Jefferson-Myrna Brind Center of Integrative Medicine, PA(USA)	<a href="http://hospitals.jefferson.edu/departments-and-services/mindfulness-institute/">http://hospitals.jefferson.edu/departments-and-services/mindfulness-institute/</a>
University of Iowa Hospital and Clinics Department of Psychiatry in collaboration with the UI Carver College of Medicine and College of Dentistry Iowa City, IA (USA)	<a href="http://www.uihealthcare.org/uploadedFiles/UIHealthcare/Content/Services/Mindfulness%20Programs.pdf">http://www.uihealthcare.org/uploadedFiles/UIHealthcare/Content/Services/Mindfulness%20Programs.pdf</a>
Drexel University College of Medicine Philadelphia, PA (USA)	<a href="http://webcampus.drexelmed.edu/professionalism/Mindfulness_elective.pdf">http://webcampus.drexelmed.edu/professionalism/Mindfulness_elective.pdf</a>
Duke University, Duke Integrative Medicine, Durham, NC (USA)	<a href="https://www.dukeintegrativemedicine.org/programs-training/">https://www.dukeintegrativemedicine.org/programs-training/</a>
Georgetown Univ. School of Medicine, Washington,DC(USA)	<a href="http://som.georgetown.edu/medicaleducation/mindbody/">http://som.georgetown.edu/medicaleducation/mindbody/</a>
University of Massachusetts Medical School (USA)	<a href="http://www.umassmed.edu/cfm/">http://www.umassmed.edu/cfm/</a>
McGill University McGill Programmes in Whole Person Care, Faculty of Medicine, Mont(CAN)	<a href="http://www.mcgill.ca/wholepersoncare/medicalstudents/">http://www.mcgill.ca/wholepersoncare/medicalstudents/</a>

Monash University Health Enhancement Programme (HEP) Melbourne, Australia	<a href="http://www.monash.edu/health/mindfulness">http://www.monash.edu/health/mindfulness</a>
University of Montreal Faculty of Medicine Montreal, QC (Canada)	<a href="http://medecine.umontreal.ca/communaute/les-etudiants/bureau-des-affaires-etudiantes-vie-facultaire-et-equilibre-de-vie/essence/">http://medecine.umontreal.ca/communaute/les-etudiants/bureau-des-affaires-etudiantes-vie-facultaire-et-equilibre-de-vie/essence/</a>
University of Rochester School of Medicine and Dentistry Department of Psychiatry Rochester, NY(USA)	<a href="http://jama.jamanetwork.com/article.aspx?articleid=184621">http://jama.jamanetwork.com/article.aspx?articleid=184621</a>
Oakland University William Beaumont School of Medicine Rochester, MI (USA)	<a href="https://www.oakland.edu/apps/events/event.aspx?sid=340&amp;EventID=11093&amp;archiveid=1">https://www.oakland.edu/apps/events/event.aspx?sid=340&amp;EventID=11093&amp;archiveid=1</a>
University of Toronto Medical School Toronto, ON(Canada)	<a href="http://www.studentlife.utoronto.ca/hwc">http://www.studentlife.utoronto.ca/hwc</a>

#### 4. CONCLUSIONS

An increasing number of studies have dealt with incorporating mindfulness-based interventions in K12 schools and those in postgraduate education, such as medical and dental schools, with reported positive outcomes. These interventions were motivated by success stories in applying similar protocols in clinical settings to improve health outcomes alongside western medical therapy, and uplift patients' quality of life. The importance of mindfulness-based interventions in school, especially for preparing physicians, is illustrated by a comment of a former medical student quoted by Outram and Kelly (2014): "You teach us to listen, to be emphatic, but you don't teach us what to do about suffering." The student-turned general practitioner for 8 years after some years of residency training, had felt burnt out by general practice. Promoting the wellbeing of future physicians has also been one of the reasons for these interventions (Dobkin & Hutchinson, 2010).

Further studies of ongoing programs of integrating mindfulness trainings in the formal education system should be carried out, to help train Filipino educators to enable them to develop similar



low-cost protocols in the Philippine setting. The prevalence of mindfulness-based wellness practices in gyms and practice circles in urban areas in the Philippines (promoting yoga and meditation) also form the basic foundations of many of these school interventions. A secular, non-denominational approach informed by health and social science research will help to advance integration of mindfulness practices in the formal education system.

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