

“YOGA AND MEDITATION IN HIGHER EDUCATION”

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Abstract

There is growing interest in the integration of meditation into higher education. This paper reviews empirical evidence related to the use of meditation to facilitate the achievement of traditional educational goals, to help support student mental health under academic stress, and to enhance education of the “whole person.” Drawing on four decades of research conducted with two primary forms of meditation, we demonstrate how these practices may help to foster important cognitive skills of attention and information processing, as well as help to build stress resilience and adaptive interpersonal capacities. This paper also offers directions for future research, highlighting the importance of theory-based investigations, increased methodological rigor, expansion of the scope of education-related outcomes studied, and the study of best practices for teaching meditation in educational settings.

Introduction

Yoga and meditation facilitates the achievement of traditional education goals. It is very important to be mentally healthy for a human being, with the help of yoga and meditation we can foster our cognitive skills and interpersonal capacity. It should be the part of curriculum of university syllabus because

today youth is very confused. Young people can easily be directed towards any way (Good or Bad). Through the practice of yoga and meditation they can easily find the path of life and also can be saved to go on wrong direction. By practicing yoga and meditation in our life a young student can find right thing, in this research paper yoga effects of yoga and meditation have been explained. Yoga requires you to make an effort to unify your body and mind. You do this by concentrating your awareness on your physical body through breathing and postures.

What Is Meditation?

- Meditation is an essential element in all of the world's major contemplative spiritual and philosophical traditions. In recent years, meditative practices have been taught in secular forms that do not require adherence to cultural and religious beliefs.

- Meditation is a technique in which the meditator seeks not only to reach a deep state of relaxation, but to quiet the mind.

- The mind is a chattering monkey that one tries to make quiet with meditation

- “Meditation,” as the word is used in this paper, is

an umbrella term that encompasses a wide variety of practices such as mindfulness meditation and Zen meditation. While techniques may differ, all types of meditation share the common goal of training an individual's attention and awareness so that consciousness becomes more finely attuned to events and experiences in the present.

- Some meditative practices integrate elements of both concentrative and mindfulness types. For example, a person may focus on breathing (**Zen and Vipassana meditation**) or a mantra (e.g., **Transcendental Meditation**), but be willing to allow attention to focus on other stimuli if they become predominant before returning to the object of attention.

Meditation is different from relaxation training, which is characterized by progressive muscle relaxation and autogenic training. First, meditation involves witnessing events and experiences as they present themselves on a moment-to-moment basis; relaxation training involves the pursuit of a particular psychophysical state of reduced autonomic arousal. Relaxation may be a by-product of meditation, but it is not an objective of the practice. Second, relaxation is taught as a stress management technique to be used during stressful or anxiety provoking situations. Meditation, in contrast, is not a technique whose use is contingent upon stressful situations, but rather is conceived of as a “way of being” that is to be cultivated regardless of day-to-day circumstances.

It is also important to distinguish between meditation (as described here) and Benson's Relaxation Response, which has elements of both

relaxation training and concentration meditation. It is also important to distinguish present use of the term “mindfulness” from the conception of mindfulness described by Langer. While both forms of mindfulness include an engagement with current events and experience, the former concerns an alert presence to what is taking place without attempts to change it, while the latter concerns active, cognitive manipulation of stimuli to serve self-chosen ends.

Objectives of the study

- To impart the knowledge of yoga and meditation in class room session.
- To make it compulsorily in the curriculum.
- To make aware the youth about the positive effects of yoga and meditation.
- To throw light on the benefits for human life.

Significance of the study:

1) Cognitive and Academic Performance

- Mindfulness meditation shall improve ability to maintain preparedness and orient attention.
- Mindfulness meditation shall improve ability to process information quickly and accurately.
- Concentration-based meditation, practiced over a long-term, may have a positive impact on academic achievement.

2) Mental Health and Psychological Well-Being

- Mindfulness meditation shall decrease stress, anxiety, and depression.
- Mindfulness meditation supports better regulation of emotional reactions and the cultivation of positive psychological states

3) Development of the Whole Person

- Meditation can support the development of creativity.
- Meditation supports and enhances the development of skills needed for interpersonal relationships.
- Empathetic responses are increased with meditation and mindfulness practices.
- Meditation may help to cultivate self-compassion

Literature Review

The pedagogical role of mindfulness:

Mindfulness and contemplation fosters additional ways of knowing that complement the rational methods of traditional liberal arts education.

1. capacity for knowing through silence, looking inward, pondering deeply, beholding, witnessing the contents of our consciousness. These approaches cultivate an inner technology of knowing.” This cultivation is the aim of contemplative pedagogy, teaching that includes methods “designed to quiet and shift the habitual chatter of the mind to cultivate a capacity for deepened awareness, concentration, and insight.” Such methods include guided meditation, journals, silence, music, art, poetry, dialogue, and questions.

2. Cowger and Torrance (1982) had participants in both groups practice for 30 minutes a day for 17-21 sessions. Based on the Torrance Tests of Creative thinking, the meditator showed significant gains in creativity, as defined by heightened consciousness of problems, perceived change, invention, sensory experience, expression of emotion/feeling, humor,

and fantasy.

3. Mezirow argues that education should lead students away from their old habits of mind and outmoded assumptions to a wider array of choices. This happens when they reflect critically upon their own lives and analyze their underlying.

4. Bordo reminds us that we cannot take the body out of human history, whether we're talking about Nazi crematoria or contemporary events like suicide bombs and hurricane disasters.

In the classroom, these forms of inquiry are not employed as religious practices but as pedagogical techniques for learning through refined attention or mindfulness. Research confirms that these practices can offset the constant distractions of our multitasking, multimedia culture. Thus, intentional teaching methods that integrate the ancient practice of mindfulness innovatively meet the particular needs of today's students.

In class room contemplation

“What we know of learning is that the predominant factor is not merely time on task; it is the quality of attention brought to that task. If our attention is somewhere else, we may have little capacity to be present. Paradoxically, we may need to not do for a few minutes to be more available for doing the task at hand. At the beginning of class I might turn the lights off and instruct students: 'Take a few deep, slow, clearing breaths. Let your body release and relax; let any parts of you that need to wiggle or stretch do so. Now feel the gentle pull of gravity, and allow the chair beneath you to support you without any effort on your part. Just let go and allow

yourself to be silent and not do anything for a few minutes. You may want to focus on your breathing, allowing it to flow in and out without effort.'

A Review of the Research

Meditation may both augment and expand current approaches to higher education. The research reviewed in this paper points to three ways in which meditation can be applied to higher education:

- Enhancement of cognitive and academic performance
- Management of academic-related stress
- Development of the "whole person"

Four decades of research provide evidence of the significant effects of meditation on education-related variables. In this section, we highlight major findings in three areas: Cognitive and Academic Performance; Mental Health and Psychological Well-Being; and Development of the Whole Person.

Effects of Meditation on Cognitive and Academic Performance

Several aspects of cognitive functioning are central to successful higher academic performance, including the ability to focus attention on specific tasks and to process information quickly and effectively. Research on concentration and mindfulness forms of meditation supports the use of both in academic settings. Preliminary research suggests that meditation impacts academic performance as well.

Sunil Gopal

1. Ability to maintain preparedness and orient attention

Key Research Finding: Mindfulness meditation may improve ability to maintain preparedness and orient attention.

Attention is critically important to the mental processing central to learning. Attention is increasingly divided in the modern world, as information flow increases and individuals seek to perform multiple activities simultaneously or seek multiple stimulus inputs. Division of attention can have deleterious effects on student performance, however. For example, in a recent study of multi tasking, the presence of a secondary task produced primarily rote learning. In contrast, attention to a single task produced an additional ability to generalize the learned information to new situations. Despite its importance to learning, focused attention is rarely if ever systematically trained or cultivated in most educational settings. And yet, attention training has been the hallmark of meditative disciplines for centuries, and thus the incorporation of these practices into higher education could be of great benefit. Practitioners of concentrative meditations first set and attempt to retain focus on a particular object (such as the sensation of breathing or a word), notice when the intended focus is lost, discontinue the unintended focus (e.g., worrying about some impending task) once it is noticed, and then restore the intended focus. Research suggests that meditative practices can, in fact, enhance specific aspects or subsystems of attention. Such research is important to demonstrate the value of meditation in educational settings, where attention skills are central to successful learning. For

example, close attention to a task can inhibit distraction by non-relevant stimuli in the task environment. Several recent studies with adults offer evidence that meditation may enhance attention capacities and attention-related behavioral responses.

A study by found enhanced alerting attention effects after a month-long mindfulness meditation retreat and also found enhanced orienting attention among those receiving MBSR mindfulness training. The researchers examined three functionally and neuroanatomically distinct but overlapping attention subsystems: alerting, orienting, and conflict monitoring. Alerting involves achieving and maintaining a state of preparedness, orienting directs and limits attention to a subset of possible stimulus inputs, and conflict monitoring

2. Academic achievement

Key Research Finding: Concentration-based meditation, practiced over a long-term, may have a positive impact on academic achievement.

Academic achievement measured in terms of course and examination grades, degree completion rates, and other concrete criteria, usually represents a “bottom line” for any new educational supplement. One study has examined the effect of meditative practice on examination grades among both college and middle school students.

In a randomized controlled trial with college students, Hall (1999) randomly assigned 56 undergraduates to two study groups, one of which included concentration-based meditation. The meditation intervention included a one-hour

session of meditation instruction twice a week for the academic semester, which included guidance in a simple attention focusing and in relaxation exercises. Meditation was practiced for 10 minutes at the start and conclusion of each one-hour study group session, and this group was instructed to meditate at home and before exams. The control group also met for one hour of study a week but was not introduced to meditation. The groups did not differ in grade point average (GPA) at the beginning of the study, but at the end of the spring academic semester after the fall semester training, the treatment group had significantly higher GPA scores compared to the control group.

3. Regulation of emotional affect

Key Research Finding: Mindfulness meditation supports better regulation of emotional affect and the cultivation of positive psychological states.

Recent research indicates that mindfulness, both as a disposition and as a state induced in the laboratory, is related to better affect regulation. The effects of mindfulness meditation on stress and mental health in students appear to extend beyond those of basic relaxation. When an individual is able to successfully self-regulate through relaxation techniques (such as imagery or guided mental, emotional, or somatic exercises) they experience a release of physical tension that acts to oppose the stress response and creates a calm state of mind and body. In contrast, mindfulness meditation involves a simple noticing of what is taking place in the mind and body without attempts to alter the experience. Relaxation may or may not be a byproduct. Recent

research provides evidence for unique patterns of psycho physiological response in mindfulness-based versus relaxation-based practices.

Differences between these practices also appear to translate into psychological effects. In a randomized controlled trial with 83 medical students, graduate nursing students, and undergraduate students majoring in premedical or pre-health studies, all of whom reported distress, Jain found that month-long programs in mindfulness meditation and somatic relaxation produced similar salutary effects on distress reduction and enhancement of positive mood relative to no-treatment control students. However, those enrolled in the mindfulness meditation program had a more specific ability to reduce distractive and ruminative thoughts and behaviours. This reduction helped to explain the effect of mindfulness meditation on the reduction of distress in these students.

4. Creativity

Key Research Finding: Meditation can support the development of creativity.

Creativity traits and capacities include perceptual skill, ideational fluency, openness to experience, and emotional flexibility. Related to but distinct from intelligence, creativity is a key aspect of the educational experience, and key to success in professions that require creative achievement. Thus, primary, secondary, and higher education researchers have a keen interest in identifying factors that may promote creativity. In a small trial comparing the effects of Zazen meditation to

relaxation on creativity.

5. Self-compassion

Key Research Finding: Meditation may help to cultivate self-compassion.

Self-compassion, a relatively new construct under study in psychology, has been defined as being kind and understanding toward oneself in instances of pain or failure; perceiving one's experiences as part of the larger human experience; and holding painful thoughts and feelings in balanced awareness rather than over-identifying with them (Neff, Rude, & Kirkpatrick, 2007). Self-compassion is important to whole person development because it has been related to other positive psychological features, including wisdom, personal initiative, curiosity and exploration, happiness, optimism, and positive effect, even after controlling for personality style and other qualities related to these features.

Two recent studies, one with health professionals and the other with graduate students demonstrated significant increases in self-compassion through MBSR participation. Self-compassion may be particularly important in dealing with unpleasant life events. Leary, Tate, Adams, Allen, and Hancock found those self-compassion attenuated college students' reactions to negative personal and interpersonal events in ways that, under some circumstances, were even more beneficial than self-esteem.

6. Stress, anxiety, and depression

Key Research Finding: Mindfulness meditation may decrease stress, anxiety, and depression.

While some degree of stress may help to enhance such performance, too much can inhibit cognitive faculties that are crucial to learning and to demonstrations of it (e.g., examinations). For example, the presence of emotional states like anxiety and depression can inhibit the capacity to screen out irrelevant stimuli, thereby increasing distractibility, as well as contribute to poor organizational skills, and make attention focus on specific tasks for extended periods more difficult. There is also evidence linking the presence of excessive stress and negative affect to memory impairment, with obvious implications for learning. stress “handicaps our abilities for learning, for holding information in working memory, for reacting flexibly and creatively, for focusing attention at will, and for planning and organizing effectively.”

Four decades of research with adult student, community, and clinical populations has provided evidence that meditation reduces negative mental health symptoms, including stress and anxiety, and enhances psychological well-being. Several such studies have been conducted with students in higher education settings. Much of this research has examined the potential benefits of mindfulness-based meditation using the MBSR intervention model.

In a randomized, wait-list controlled study with 78 medical and premedical students, Shapiro, et al. (1998) examined the effects of an 8-week MBSR program on symptoms of anxiety and depression, both of which are elevated in medical student

populations. Results indicated decreased levels of anxiety and depression in the MBSR group as compared to the wait-list control group. These reductions were maintained even during a stressful final exam period, and findings were replicated when participants in the wait-list control group received the MBSR intervention.

Correlation Of Yoga With Higher Education

Yoga and pedagogy

- John Dewey implicitly included body-based learning when he urged pedagogues to make experience central to education. As early as 1898 he argued against the dualistic notion that thought and action or theory and practice could be separated, thus challenging the prevailing belief that theorizing was the superior endeavor.
- Dewey envisioned the university as a bridge between the mind and the material world (Hein). Building upon Dewey, Jack Mezirow's Transformative Learning Theory, especially influential in adult pedagogy, likewise refuses to divorce learning from direct experience. Assumptions. Educational paths to transformation must encompass more than the cognitive realm since experience includes our corporeal lives as well as our thoughts and ideas.
- Feminist theorists also envision self-knowledge as a path toward liberation.
- Develop mentalists like Mary Field Belenky and her collaborators stress the relational aspects of

epistemology, often overlooked in studies based upon male reasoning. The women she and their colleagues interviewed construct knowledge by making connections between their personal experiences and abstract ideas, a process similar to that described by Damasio, Lakoff and Johnson, Dewey, and Mezirow. Feminists go further when they point out how cultural attitudes about women's bodies inscribed on our psyches and our institutions limit us and often produce pathologies like anorexia nervosa and self-harming.

- Philosopher Susan Bordo highlights the danger of denying the materiality of human experiences and critiques postmodernist and feminist thinkers who dismiss the body as simply another text. She reports on a personal encounter with academic prejudice when she learned of her failure to get a position because she “moved her body too much during the interview”.

- Central to Yoga practice is pausing to notice what the body does and feels. “Reflection,” sometimes called “critical reflection,” has been identified as central to significant learning by a number of educators, notably Mezirow, Donald Schon, and Robert Tremmel. In our rush for “coverage,” we often deprive students of the time to look back and make meaning of their studies. Just yesterday a colleague was told by the department chair to add two more books to an already packed syllabus; the only rationale was that requirements should be consistent across sections. Clearly, asking students to reflect upon their reading is not a high value in this department. Schon, whose work focuses on professional education, defines reflection as

“knowing-in-action”.

- It's possible to be both thoughtful and active at the same time; one need not be sitting in silent meditation to be reflective. As teachers, we're used to enacting three functions simultaneously: attending to classroom reality, accessing our intuitive responses, and examining alternative ways of proceeding. Like Dewey, who called for melding theory and practice, Schon regards teachers as researchers whose laboratory is the classroom. In that sense, educators are like Yoga practitioners who regard their bodies as the research site. Building upon Schon's work, Robert Tremmel reminds us that genuine reflection involves more than thinking about something; it must be cultivated. For that he turns to eastern teachings like Zen Buddhism. Buddhism defines mindfulness as intentional, non-judgmental, moment to moment awareness.

Since mindfulness asks that we constantly call our attention back to the here and now, Tremmel finds this metaphor of returning again and again to express accurately the purpose of reflection. Ideally, one brings awareness to an action as it is taking place and stays attentive, rather than using a pat response (449). Jon Kabat-Zinn's Center for Mindfulness (CFM) at the University Of Massachusetts Medical School was originally designed for patients dealing with chronic pain and life threatening diseases. Using mindfulness practice as a basis, CFM has spawned two hundred new programs and is increasingly being applied in educational settings. For those who find disciplined attention difficult to maintain, Yoga poses and breathing exercises offer tools for deepening one's ability to pay attention and

reflect on what one notices.

Yoga in the Classroom

Inspired by both my students and my budding Yoga practice, I now incorporate many Yoga-based mind/body strategies into my classes. Since I teach in a variety of formats including week-long intensives, weekend sessions, and day-long sessions geared toward adult graduate students, I have much time flexibility. However, the following ideas could be easily adapted to more traditional class settings. In a core requirement for the Master's program (Ways of Knowing: How We Make Meaning), a course that examines and critiques the western paradigm, I ask students to identify their strongest "intelligence" using an inventory based upon Gardner's Multiple Intelligence theory (Frames). Their first assignment is to engage in an activity in their weakest domain, record their observations, and then share their discoveries with the class. Half the students select body-based activities, further evidence of their yearning to integrate somatic experiences with their academic work. For her project, Sarah Warren, a preschool teacher passionate about her inner city children, reluctantly signed up for Yoga classes. Though she appeared to be fit and agile, Sarah was frank about her bodily discomfort:

I consider my body to be a heavy jangle of parts. It seems to get in my way of knowing the world, causing embarrassment. My body has failed me before . . . my mind has too, but it's hard to hold your brain in contempt the way you can your body. Sarah's image of her body and brain as distinct entities illustrates Johnson's point that our linguistic

concepts lag behind what is known about body/mind integration. When we address this contradiction directly, we begin to notice changes: The teacher comes over during the downward facing dog routine and tells me to stick my butt in the air more and to bend my knees a little. Something changes, something serious. I feel this whole other kind of stretch happening. She asks me to focus, to really focus on what I'm about to do before I do it; I try again; I hold the tree pose. . . . I begin to carry the teachings to the rest of my life. I pay attention to my shoulders and what their position tells me about my stress level and mood, I tell myself to breathe more . . . it seems to take a great deal of awareness to help the body be integrated with the mind (Warren). Sarah moves toward integration as she "pays attention" to stress in her body and connects this with her mood, an observation she did not make before her Yoga experience. Mary Sheys, an academically oriented scholar, chose to embark on a weight loss/exercise program which lasted the entire semester. She wrote: "When processing through experience of the body. The intrinsically valuable outcomes are not recognized in traditional academic contexts. This knowing is new—I think it will allow me to synthesize thought more easily as I learn how to produce through process, not just product." Though we use the notion of process often, especially in regard to writing, it is easier to grasp with bodily engagement. Fatma, a woman from Egypt, chose to take Swing Dancing lessons. She told us that women in her culture cannot be touched, that dancers are considered "bad women." Her self-image was that of "a brain on a stick," but the experience of moving her body made her feel alive in a new way. Other activities students have chosen for this assignment includes studying meditation, kick boxing, and

practicing Japanese swordsmanship. The challenge to engage bodily and then reflect on the experience could be integrated into any number of writing exercises.

In addition to these “homework” assignments, I also bring body-based activities into real class time. The changes are small, but I try to model the observation, reflection, and critical thinking that I wish students to practice. During a discussion, I remind them to listen without judgment before leaping into a defensive position or a rushed response. When discourse is the dominant mode, silence can be welcome. Before turning inward, students can observe the absence of noise. What do they notice? How unusual is it to be silent in a group? Moments like these can disrupt patterns in which the same people jump in with answers. Those who tend to be quieter or less articulate may feel a space opened for them. When using free writing, I add some breathing. If we stop and pay attention to our breath before we write or speak, our minds return to the present moment. Unlike silence, breathing gives a focus to emptiness. A further instruction would ask them to try a three-part breath: consciously breathe in to the count of three, hold the breath for three counts, then exhale for three. (A longer count can be added each time.) For students who may be resistant to “writing on command,” breathing allows time for images and thoughts to form and offers a strategy they can use when feeling blocked.

To create a transition from one topic or activity to another, I engage students in a simple stretching and breathing exercise. Yoga movement is different from exercise, for in Yoga you breathe before moving while in exercise you breathe after moving.

Asking students to squat after sitting or stand balanced on one leg brings their wandering thoughts back to the present. Even simple movements done in a chair can harness the breath to enliven the body. After they notice how their bodies are feeling, I give them time to make themselves more comfortable.

They may simply stand with eyes closed sensing their feet on the floor. They might do a more energizing stretch such as “breath of fire,” which involves inhaling, bending with head to floor, and exhaling in rapid succession. I might invoke the Buddhist image of our minds as naughty, distractable monkeys and invite students to tame the wild creature by trying a more challenging pose like the dancer or tree that involves standing on one leg for several breaths. Participation is voluntary, and anyone who prefers to watch is free to do so. These exercises model a form of inquiry based upon observation. Information gathered from our somatic laboratories can help us to become more sensitive observers of other phenomena.

Conclusions

Since most Yoga postures are repeated on one's left and right sides, the practitioner will notice subtle differences in her body. Working with sensory evidence builds the habit of collecting data without prejudice then drawing conclusions. Contrasting our personal observations with dominant knowledge claims can lead to questioning them when appropriate. If my own body tells me that my left side responds differently than my right, perhaps I should also question generalizations made about women's bodies or menopause or ethnic traits. Discourse about our own bodily responses in a non-

competitive learning environment shows that human diversity is more complex than categories like race and gender imply (Barlas, Gustafson, and Todd, Noticing our somatic changes from day to day undermines the outdated Platonic notion of essentialized identities and challenges the doctrine that human nature is fixed and unchangeable. The more fluid, scientifically sound view that posits culture and identity as complex, dynamic processes becomes visceral as well as theoretical. Finally, we might experience media images of torture or death with less desensitized indifference.

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