

A Review Paper on Benefits of Meditation

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ABSTRACT: *With a quickly older population, it is more essential than ever to combat the natural diminished cognitive function that comes with age. A growing body of evidence suggests that cognitive training programs may be able to reverse this decline. Because of a growing body of research, Meditation has been shown to improve consciousness in youthful and middle-aged adults. Meditation may be able to counteract or even improve cognitive decline as people age. Studies looking into the impacts of meditation on consciousness and cognitive decline in the frame of reference of Alzheimer's disease aging. The review included twelve studies, six of which were controlled trials. A wide range of meditation techniques were used in the studies, which yielded preliminary positive results. On cognition, including attention, memory, brain control, speed of processing, and general cognition However, the majority there was a significant risk of bias in the studies, and the sample sizes were tiny. Dropout rates were reported to be low, and the rate of compliance is high. We suggest that meditation treatments for senior citizens are practical and beneficial. Meditation seems to be able to counteract age-related cognitive deterioration, according to early data.*

KEYWORDS: Brain, Health, Meditation, Population, Technique.

1. INTRODUCTION

The world's population is quickly aging, owing in part to rising life expectancy and the aging of the baby boom generation. In the United States, the number of people aged 65 and above has increased by 18% in the past decade and is projected to almost double to 79 million by 2040, accounting for 20% of the population. Figure 1 shows the meditation technique, which calms your body.

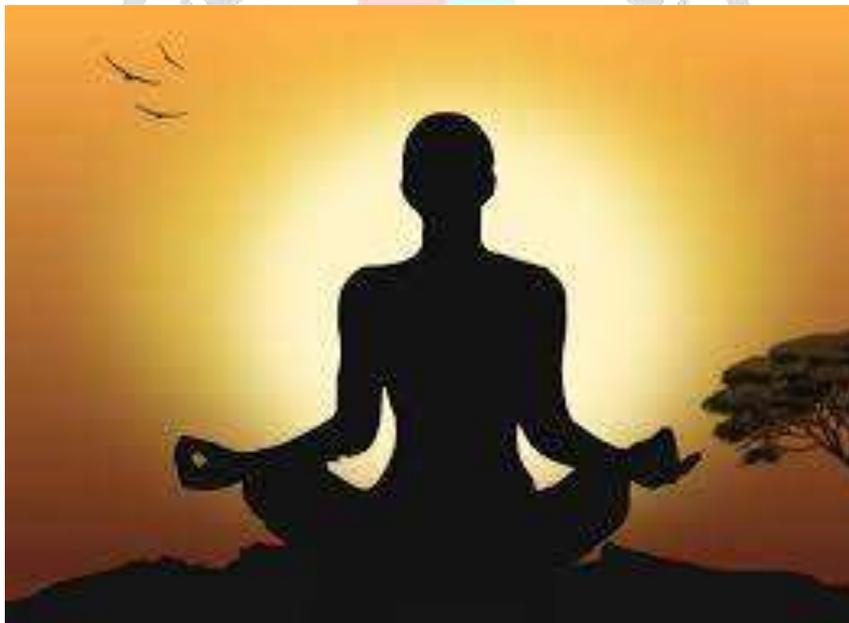


Figure 1: The above figure shows the meditation technique, which calms your body [thehealthsite].

Although it is well known that normal healthy aging is accompanied with a decrease in cognitive function^{6–8} and corresponding declines in brain structure and activity, it is also well established that aging is linked with increasing social pleasure and well-being. The deterioration of intellect is very particular. While crystallized mental skills like language grow gradually until midlife, stay relatively constant during midlife, and then progressively diminish, as people become older, fluid abilities like speed and memory deteriorate much more quickly. Mild cognitive impairment (MCI) and dementia, which are defined by limits in everyday functioning and usually result in a worse quality of life, may develop because of the decrease. As a result, cognitive decline is an often-dreaded part of aging, and it is a hardship not just for the person afflicted, but also for their family and society. According to early research, a variety of lifestyle variables may influence the pace of normal decline. Recent research has indicated that a range of cognitive

training regimens and aerobic activity may help to prevent cognitive deterioration. However, no clear recommendations can be made based on the small body of research studies available at this time, and additional rigorous study is required to more clearly address this issue [1]–[7].

Meditation has been shown to improve numerous cognitive skills such as attention, memory, and executive function, as well as brain function and structure related to cognition, according to a growing body of studies. Despite this data, little research has been done on the benefits of meditation on cognition and cognitive decline in the elderly. We shall examine what is presently known about this new area at the crossroads of gerontology and contemplative sciences in this article. While we are focusing on the impact of meditation on cognitive decline, let us look at how meditation affects brain function and structure as people age [8].

1.1 Meditation in School:

CE is defined as “a set of practices that may foster particular forms of awareness in students, forms conducive to conscious motivation and regulation of learning, as well as freedom and transcendence in life more generally”. CE aims to promote "personal growth and social transformation by cultivating conscious awareness and volition in an ethical-relational context". CE is “learning infused with the experience of awareness, insight, and compassion for oneself and others honed through the practice of sitting meditation and other contemplative disciplines”, the rigor of contemplative practices helps students learn about their inner selves by preparing the mind to process information in new ways. Contemplative education "challenges and supports students in ways that greatly expand upon traditional academic approaches." This cutting-edge form of education provides students with new perspectives and techniques to help them find their own authentic way of connecting their heart and mind [9].

Although contemplative education has not traditionally been a part of the Western school curriculum, its use is growing, particularly through the practice of meditation in schools. Meditation is the deliberate act of regulating attention through observation of thoughts, emotions, and body states. ACEM, centering prayer, loving kindness meditation, mindfulness, mindfulness-based stress reduction program, shamatha, transcendental meditation (TM), vipassana, and zen are some of the most popular meditation techniques. The underlying premise of all of these techniques is that you must pay full attention to internal and/or external phenomena [10].

- Directing focus to a "attentional anchor" (e.g. breath, an external object, a person we love, a deity).
- Dispassionately observing internal and external distractions and regularly disengaging from them.
- Focusing attention from distractions back to the attentional anchor.

Meditation can be a secular practice that does not necessitate any changes in one's religious beliefs or affiliations. In the last ten years, countries such as England (Mindfulness in Schools Project, DotB), the United States (Mindful Schools and MindUp), Canada (Mindful Education), Israel (The Mindfulness Language), and India (The Alice Project) have developed youth-meditation programs. It is worth noting that the Collaborative for Academic, Social, and Emotional Learning in the United States set aside \$7 million in 2012 to develop social–emotional learning curriculum. As a result, more meditation education programs are expected to be developed and taught in schools.

Is it appropriate to teach meditation in schools? The answer is unmistakably yes from the viewpoint of maximizing reach. Unlike other possible intervention sites, one schools have frequent interaction with a large number of children throughout the course of their critical developmental years, when lifetime habits may be formed. According to Davidson and Lutz (2008), “the mental training of meditation is essentially no different from other kinds of skill acquisition” and that is one of the main goals of schools. Meditation may also promote plasticity in the brain, which aids learning; finally, meditation education is consistent with the 21st-century educational model, which sees learning as a holistic process aimed at educating children intellectually, emotionally, socially, morally, and spiritually.

Because many school curricula are already overburdened, meditation should only be implemented if it would benefit pupils. Research is an important tool for determining if meditation improves student outcomes. However, according to a 2005 assessment of CE by the Garrison Institute, “few school-based

contemplative programs match research". Furthermore, only one research per program, usually a pilot program, has been performed within that 60%. As a result, although meditation education programs are becoming more popular, sufficient research has not been conducted to support their design and execution. Solid research is required to ensure that meditation is a long-term educational method. As a result, it is past time for a comprehensive assessment of studies on meditation instruction in schools.

The therapeutic effects of meditation in clinical adolescent samples or "at-risk" kids have dominated research on youth meditation too far. Depression, anxiety, and anger control are common outcome factors. Meditation seems to help sick, disturbed, and disordered adolescents control their negative symptoms, according to this limited body of studies. For example, focused on one meditation practice, mindfulness, and the evidence of mindfulness as it related to outcomes for youth in clinical samples (e.g., youth with attention deficit hyperactivity disorder, obsessive compulsive disorder, and autism spectrum disorder), residential care programs (e.g., youth in substance abuse treatment programs), and community-based programs (e.g., youth in substance abuse treatment programs). Their study provides a compelling case for introducing mindfulness to children in clinical and at-risk settings.

Non-clinical adolescent groups, on the other hand, may benefit from meditation if therapeutic intervention is not the goal. School-based meditation might be helpful in non-clinical juvenile populations if it helped kids accomplish school-wide goals like academic-social-emotional development. As a result, the overall issue we want to answer in this study is, "How successful is meditation in mainstream schools?" To address this issue, we need to define what "efficacy" means for mainstream students and offer a framework for comprehending the processes through which meditation affects important outcomes. When it comes to determining effectiveness, we adopt a "whole student" approach, focusing on scholastic, well-being, and social results. The evidence on how school meditation programs help with wellbeing, social competence, and academic success is examined. In addition, the School-Based Meditation Model is given, as well as an investigation of how meditation helps pupils. Finally, the study makes recommendations for further investigation.

1.2 The Effects of School Meditation Programmes on Schooling Outcomes:

The evidence of meditation in schools will be reviewed in the next part, which will include data from 15 research. The research has to satisfy three essential criteria in order to be considered for publication in this article. First, the research had to be peer-reviewed and published in academic publications that are part of the Web of Science database, indicating that it has previously passed peer review. Second, rather than adolescent well-being programs conducted in other contexts (e.g., clinical settings or community settings), the research had to be implemented with children at school. Third, the study required to be assessed using research methods and measurements that were both valid and reliable. While randomised controlled experimental trials are the optimum form, we also accepted research that utilized quasi-experimental designs if they used pre-existing psychometrically validated surveys and suitable statistical analytic methods. When developing our findings on whether meditation education aids student performance, we addressed risks to external and internal validity in this research. We also included qualitative investigations and used the "confirmability" test. Confirmability in qualitative research is comparable to the test of validity in quantitative analysis. Qualitative analysis is "confirmable" if it is credible, defensible, justified, and resistant to alternative explanations. The inclusion of qualitative studies in our evaluation of the impacts of meditation adds an essential component to our analysis since they aid researchers and educators in better understanding student meditation experiences. Qualitative methods seek for participant-defined meanings (rather than imposing the researcher's meaning) and investigate narratives (rather than testing predictions about variables). Students' lived experiences in the meditation study, as captured in testimonies, offer deeper explanations of the underlying meditation processes.

The goal was to provide findings from evaluations conducted in junior, middle, and senior high schools, as well as in different educational systems (e.g., public and private schools), in other countries, and with students of both genders and races. Five of the 15 papers under evaluation could not be computed because three were qualitative and two provided inadequate data. The total number of participants in the impact size analysis for the remaining ten trials was 1,797. The means and standard deviations (SD) of the intervention and control groups were used to calculate d where available. Alternative techniques, such as the t or F

statistic, were used if these statistics were not available. To verify that similar formulae were utilized in the computations, ES estimations were tried for all research, even if the publication previously provided a Cohen's d value. We calculated the proportion of significant results across the following meditation program characteristics: meditation type, length of the program, frequency of sessions, age of the student sample, and the person who delivered the program, in addition to Cohen's d effect sizes. We were unable to meta-analytically combine the effect sizes to conduct moderator analyses due to the limited number of studies, absence of measurement information (e.g. reliability), and variations in measurement and construct characteristics. Instead, we computed the proportion of significant impacts for each of the program features to get a rough sense of how much program factors influence the main outcomes. Each research produced between one and seventeen effects, totalling 762 effects, of which 61% were significant. The results of the research are summarized here, along with the impact sizes for each conclusion based on the three student outcomes of well-being, social competence, and academic performance.

1.3 The Effects of Meditation Programmes on Well-being:

Student well-being has risen to the top of the educational agenda, with many now considering it as important as academic success. Students' anxiety, stress, sadness, optimism, positive affect, self-concept, self-care, and self-acceptance have all been studied in connection to the benefits of school meditation. We found nine research (n=1,483) that looked at the impact of meditation on happiness. There were 17 findings from the nine research, and 59 percent of them were significant. Cohen's d was 0.02 to 0.62, with 65 percent of effect sizes having small and 42 percent being medium. High school students who participated in a TM meditation intervention had substantially reduced state anxiety and trait anxiety than those who slept or had no interest. Both studies demonstrate that the impact of meditation extends beyond merely "unplugging" or participating in peaceful activities, as shown by significant decreases in negative emotional consequences from intervention to control groups. When compared to a non-equivalent control group, discovered that students in a mindfulness meditation condition had significantly lower negative affect ratings (d=.61). Finally, the author revealed that students who meditate had lower stress levels, based on semi-structured interviews with students. Furthermore, 48% of students said that studying meditation in school inspired them to meditate when they were anxious outside of school. However, not all people saw substantial improvements in their hedonic moods.

Following 12 weeks of mindfulness meditation, Mendelson et al. (2010) found no changes in positive or negative affect in the randomly assigned meditation group compared to the control group of fourth and fifth graders. Students who received the intervention, on the other hand, scored significantly lower on emotional arousal (d=.64), intrusive thoughts (d=.51), involuntary engagement (d=.83), and rumination (d=.70) at the post-test, implying that while mood was unaffected, overall stress and coping responses were improved. The qualitative results in this research backed with the quantitative findings showing meditation may help you relax. "Now I know various routines and exercises that I can perform at home that helps me lower and decrease my stress," a fourth-grade student, for example, said. Several research have looked at promoting good emotional states and wellbeing rather than reducing negative consequences, with varied results. Students in the ME intervention exhibited modest but significant gains in optimism (d=.22) and positive affect (d=.20) as compared to controls. Preadolescents (fourth and fifth graders) in the ME group had a higher overall self-concept than those in the control group, while early adolescents had the reverse effect. No significant changes in resilience or psychological well-being in 14–16-year-old boys who were randomly allocated to four 40-minute mindfulness-training sessions vs a control condition. Increased meditation practice outside of the classroom, on the other hand, was associated with self-reported increases in wellbeing in the meditation group. Students reported improvements in well-being, calmness, relaxation, sleep, reactivity, self-care, and self-awareness, as well as a sense of interconnection with nature, as a result of the five-hour-long sessions combining Mindfulness-Based Stress Reduction (MBSR), a qualitative assessment in which they questioned seventh-grade racial minority children who had been practicing TM for over a year. In addition to lower stress levels, students reported improved emotional regulation, including self-reflection, self-control, and levels of restful alertness. "It's made me a calmer person and made it simpler to speak to and listen to other people," one individual said.

2. DISCUSSION

The author has discussed about the meditation, which is good for or health and our peace. According to a growing body of research, cognitive training programs may be able to reverse this loss. Meditation has been proven to enhance awareness in young and middle-aged people, according to a growing body of studies. Meditation may be able to slow or even reverse cognitive deterioration in older individuals. Studies on the effects of meditation on awareness and cognitive decline in the context of Alzheimer's disease aging are being conducted. Twelve research were included in the evaluation, with six of them being controlled trials. In the research, a variety of meditation methods was employed, with early good findings. Attention, memory, brain control, processing speed, and general cognition are all aspects of cognition. However, the bulk of the studies had a high risk of bias, and the sample sizes were small. Dropout rates are low, and compliance is good, according to reports. Meditation therapies for elderly people, we believe, are both practical and helpful. According to preliminary evidence, meditation seems to be able to prevent age-related cognitive decline.

3. CONCLUSION

The present study looked at the research on the impact of meditation on student well-being, social competence, and academic performance, and came to some general findings. To begin with, school-based meditation is helpful in the vast majority of instances, with 61 percent of the findings being significant. Second, the bulk of meditation's impacts on student results are minor. Given the many variables that influence student well-being, social competence, and academic success, this result is not surprising. Small impacts should not be overlooked, and some would say that when it comes to student achievement, "every little bit helps." It is also worth noting that 33% of the impact sizes were moderate or strong. Third, the present study's findings suggest that meditation programs may be made more effective by lengthening them, promoting twice daily (or more) meditation and having the instructor conduct the program. Transcendental meditation programs exhibited a greater proportion of meaningful benefits than mindfulness-based and other kinds of meditation programs, although this may be due to the settings and delivery of the programs rather than the method itself. Fourth, the study indicates that meditation programs that are specifically intended to improve cognitive performance and emotional control would be more successful. Contemplative education's promise is appealing, and much may be gained if it is realized. While contemplative practice has a long history, the scientific study of meditation in schools is only getting started. We believe that our review article provides a strong foundation for future researchers to create high-quality educational programs.

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